An Appraisal of Homoeopathic Proving Methodology as a Bridge between the Indigenous and Rationalist-Scientific Understandings of Medicinal Plants: The Case of *Strychnos henningsii*

by

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VOLUME I

Submitted in fulfillment of the requirements of the degree of Doctor of Technology: Homoeopathy in the Faculty of Health Sciences at the Durban University of Technology.

I, Ashley Hilton Adrian Ross, do hereby declare that this thesis is representative of my own work, both in conception and execution.

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ABSTRACT

Aim
This study sought to appraise homoeopathic proving methodology as a bridge between the indigenous and rationalist-scientific understandings of medicinal plants through a detailed exploration of the relationships existing between data derived from respective paradigmatic explorations of a single African traditional medicinal plant, *Strychnos henningsii* [Red bitterberry].

Methods
The data derived from the implementation of a triple-blind, placebo-controlled homoeopathic proving methodology, on 32 healthy human subjects (50 percent placebo), using the bark of *Strychnos henningsii* in the 30CH potency, were evaluated for internal consistency and coherence, and subsequently compared to data derived from a phytochemical analysis of the crude bark sample, and translated data derived from semi-structured mother-tongue interviews of eight Zulu traditional healers.

The proving data took the form of subjective journal data and the results of four objective blood measures of erythrocyte sedimentation rate (ESR), red- and white blood cell indices, and liver functions. The subjective data were evaluated in terms of defined inclusion criteria and presented in standard materia medica and repertory formats, and tabulations of objective data were subjected to independent statistical analysis, using repeated-measures ANOVA and profile plots. The crude bark sample was analysed in terms of the presence of strychnine and other indole alkaloids, using high-performance liquid chromatography-mass spectrometry, and interview data related to the indigenous understanding and application of *Strychnos henningsii* within the traditional African medical paradigm, were audiovisually recorded, collaboratively translated, and independently verified.
Qualitative data processing and analysis was effected with the aid of *NVivo*® software, and a range of comparative analyses were effected with the aid of *Radar*® homoeopathic software, materia medica references and the *Mappa Mundi* elemental theory model.

**Results**

The proving yielded 581 subjective symptoms, covering a broad range of physical and mental disease manifestations, and nine statistically-significant treatment effects within the objective data set. These included elevation of ESR and changes in two red blood cell indices, four white blood cell indices and two liver function indices. The two proving data sets were demonstrated to show high levels of correlation, although these correlations were not demonstrable for all provers.

The phytochemical analysis confirmed the presence of between two and five strychnine-related compounds (excluding strychnine itself), and the field interview data served to confirm all except two documented traditions of use, as well as identifying a number of novel indications and application of *Strychnos henningsii* bark.

The comparative analyses demonstrated the integrity of homoeopathic proving methodology as a mode of scientific investigation, and significant and widespread overlaps of proving symptomatology with both the pharmacology and toxicology of strychnine, and the physical and metaphysical understanding and application within the traditional African medical paradigm.

**Conclusions**

Homoeopathic proving methodology was discussed in terms of the evident degree of overlap with the indigenous and rationalist-scientific paradigms, and the incomplete nature of the homoeopathic ‘totality’. A number of recommendations were made for future cross-paradigmatic research.
DEDICATION

This thesis is dedicated to the memory of my father,

**Andrew Henry Ross (1914 – 1992)**

whose unwavering love and care for our large family, and my mother in particular, served as a model of compassion, humility and dedication.

He taught me to value all people equally, regardless of race, language, creed or social standing, and to always look beyond the superficial and ephemeral in my attitude towards life and in my dealings with others.

He dared me to think, to ask the difficult questions, and to pursue an education, without prejudice, and without fear of where this pursuit may lead me.

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ABBREVIATIONS AND SYMBOLS

< : ‘aggravated by’ indicates a factor which intensifies the behaviour, level, degree of intensity or severity of a clinical state (symptom, sign, pathology or disorder). This may include another clinical condition, a physiological function, an emotional state, an activity, the behaviour of the patient, food and drink, time of day, any experience or circumstance, including environmental factors, to which the patient (prover) is exposed or commonplace palliative measures or reactions such as rubbing or scratching (Swayne, 2000: 138-139).

> : ‘ameliorated by’ indicates a factor which improves the behavior, level, degree of intensity or severity of a clinical state (sign, symptom, pathology or disorder), as defined above (Swayne, 2000: 138-139).

CH: Hahnemannian Centesimal (potency) indicates a medicine prepared by the Hahnemannian potency method, in which dilution is in the proportion of 1 part in 100. The Hahnemannian potency method is a method of performing the process of serial dilution, in which one part taken from the preparation of the previous stage in the process is added to the requisite number of parts of the diluents in a new glassware container at each stage (multiglass method) and submitted to succussion. The number of serial dilutions performed in this manner defines the potency according to the proportions used in the series. The method allows for two scales of potency, decimal [DH] and centesimal [CH] (Swayne, 2000: 36, 95-96).
**IC\textsubscript{50}**: Median inhibitory concentration represents the concentration of an inhibitor that is required for 50 percent inhibition of its target [an enzyme, cell, cell receptor or a microorganism]: used as a measure of antagonist drug potency in pharmacological research (Martin, 1998: 324).

**LD\textsubscript{50}**: Median lethal dose is the dose of a toxic compound that causes death in 50 percent of a group of experimental animals to which it is administered: used as a measure of the toxicity of drugs (Martin, 1998: 366).

In this thesis I have described and discussed three distinct paradigmatic understandings of a single medicinal plant, *Strychnos henningsii*. Whilst the pharmaceutical processes associated with each of the paradigms would produce three distinct ‘medicines’, I have, in this thesis, focused upon the relationships between the respective paradigmatic understandings, rather than the specific nature of the ‘medicine’ employed within each paradigm. I have chosen to indicate the respective understandings by the following terms and typographies:

*Strychnos henningsii* refers to the taxonomically-classified and botanically-described plant, Red bitterberry. In-text reference to the plant in the conventional genus-species (italicised and underlined) typography indicates reference to the plant as a botanical species, and as it is understood within the rationalist-scientific paradigm.

*Umqalothi* refers to the medicinal plant, Red bitterberry, as it is understood and utilised within the Zulu traditional medical paradigm. In-text reference to the plant in the isiZulu vernacular (italicised) indicates reference to the paradigmatic understanding of the plant as a medicinal agent, and as an entity within the African world view.

*Strychnos henningsii* refers to the homoeopathic remedy prepared from the bark of *Strychnos henningsii*. In-text reference to the plant species in bold non-italic typography indicates reference to the understanding and use of a potency of *Strychnos henningsii* bark, in terms of homoeopathic materia medica and the homoeopathic paradigm.
DEFINITIONS OF TERMS

Allopathic: A treatment whose action has no direct relationship to (is other than) the effects of the illness, the symptoms. The effect of the drug or treatment method bears no relationship to the symptoms or other effects of the illness. For example, the use of electroconvulsive therapy to treat depression. The term is commonly, but incorrectly, used to describe all other forms of mainstream conventional medicine, not only allopathy (Swayne, 2000: 8).

Antipathic: Antagonistic to, of contrary nature to, the disease; pertaining to methods of treatment whose primary effect is directly opposite to the effects of the disease. For example the treatment of diarrhea with codeine phosphate, whose primary effect is to cause constipation. The antipathic method is sometimes confused with the allopathic (Swayne, 2000: 13).

Epistemology: One of two major aspects of metaphysics, alongside ontology; epistemology is concerned with what we know about reality (however that is defined) and how we can know it (Willis, Jost and Nilakanta, 2007: 10).

Liquid Chromatography: A chemical separation technique based on differences in solubility. A mixture is dissolved in a liquid, called the mobile phase, and the components are separated as this phase moves over a solid (or viscous liquid) surface, called the stationary phase. High-Performance Liquid Chromatography is a refined technique which allows for a more diverse group of components to be separated (Silberberg, 2006: 75).
Mass Spectrometry: An analytical technique in which atoms or molecules from a sample are ionized (usually positively), separated according to their mass-to-charge ratio \( m/z \), and then recorded. The instrument used to carry out this measurement is called a mass spectrometer (Barker, 1999: 1).

Materia medica: In homoeopathy, the description of the nature and therapeutic repertoire of homoeopathic medicines; of the pathology, the symptoms and signs and their modifying factors (modalities), and the general characteristics of the patient associated with them, derived from their toxicology, homeopathic pathogenetic trials \( (provings) \) and clinical experience of their use (Swayne, 2000: 132-133).

Molecular weight: The sum of all the atomic weights (relative atomic masses) of the atoms in a molecule; the ratio of the average mass per molecule of a specified isotopic composition of a substance to 1/12 the mass of an atom of carbon-12 \( (^{12}\text{C}) \) (Silberberg, 2006: 89).

Ontology: One of two major aspects of metaphysics, alongside epistemology; ontology is concerned with the nature of reality (or being or existence), and various ontological positions reflect different prescriptions of what can be real and what cannot (Willis et al., 2007: 9).

Oralate: refers to the spontaneous human capacity to construct any of the full range of ways of human knowing in performance, to record that knowing in memory, and to express that knowing in performance. Human oralate capacities are innate and develop spontaneously in response to relevant stimuli. Human oralate capacities are evident in human movement, human sound and the articulation of speech, the products of human movement, and the products of the use of the human body as a tool, and the use of the human body in the manufacture of oralate tools. Human oralate reception, register and replay do not engage scribal alphabetic writing as a code (Conolly and Sienaert, 2008).
Paradigm: A comprehensive belief system, world view, or framework that guides research and practice in a field (Willis et al., 2007: 8). A paradigm is made up of the general theoretical assumptions, laws, and techniques for their application that the members of a particular scientific community adopt. It has five components viz. explicitly stated laws and theoretical assumptions; standard ways of applying the fundamental laws to a variety of situations; instrumentation and instrumental techniques that bring the laws of the paradigm to bear on the real world; general metaphysical principles that guide work within the paradigm; and general methodological prescriptions about how to conduct work within the paradigm (Chalmers, 1999: 90-91).

Placebo: A substance with no active biological properties, knowingly or unknowingly used to exert a beneficial therapeutic effect, or given to satisfy a patient’s expectations of treatment; an inactive agent used for comparison with the substance or method to be tested in a controlled trial, and indistinguishable from it (Swayne, 2000: 162).

Potency: The medicinal power of a homoeopathic medicine, released or developed by dynamisation or potentisation; the measure of the power of the medicine based on the degree to which it has been potentised, expressed in terms of the degree of dilution (Swayne, 2000: 165-166).

Prover: The subject of a proving, or homoeopathic pathogenetic trial; a volunteer, who should be in good health, who records changes in his or her condition during and after administration of the substance to be tested (Swayne, 2000: 173-174).

Proving: The process of determining the medicinal properties of a substance; testing substances in material dose, mother tincture or potency, by administration to healthy volunteers, to elicit effects from which the therapeutic potential, or materia medica of the substance may be derived (Swayne, 2000: 174).
**Remedy:** The term commonly and colloquially used amongst homoeopaths for the homoeopathic medicine because it implies both the more comprehensive remedial action which the prescription is expected to achieve and the more purposive relationship to what is to be remedied in the patient than the more general term, ‘medicine’ (Swayne, 2000: 182-183).

**Repertory:** Systemic cross reference of symptoms and disorders to the homoeopathic medicines in whose therapeutic repertoire (*materia medica*) they occur. The strength or degree of the association between the two is indicated by the type in which the medicine name is printed; source used in case analysis to identify the medicine indicated for the patient. This process is called *repertorisation* (Swayne, 2000: 183).

**Rubric:** The phrase used in a *repertory* to identify a symptom or disorder and its component elements and details, and categories of these, and to which a list of the medicines which are known to have produced that symptom or disorder in *homoeopathic pathogenetic trials*, or to have remedied it in clinical practice, is attached (Swayne, 2000: 186).

**Succussion:** Vigorous shaking, with impact or ‘elastic collision’, carried out at each stage of dilution in the preparation of a homoeopathic *potency* (Swayne, 2000: 201).

**Totality:** The complete clinical picture of the patient during the illness: comprises all the mental symptoms, general symptoms, and local (particular) symptoms and signs, and test findings if appropriate; the complete symptom pattern (Swayne, 2000: 215).
The desire for knowledge first stirs in us when we become aware of significant phenomena which require our attention. To sustain this interest we must deepen our involvement in the objects of our attention and gradually become better acquainted with them. Only then will we notice all manner of things crowding in upon us. We will be compelled to distinguish, differentiate and resynthesize, a process which finally leads to an order we can survey with some degree of satisfaction.

To achieve this even partially in any field of knowledge requires constant and rigorous effort. Therefore we find that many would prefer to dismiss phenomena with a general theoretical precept or a quick explanation without taking the trouble to study them in detail and achieve a knowledge of the whole over a longer period of time.

Johann Wolfgang van Goethe
(Naydler, 1996: 32)

1.1 THE CONTEXT OF THE STUDY

I am a homoeopathic doctor, teacher and aspirant scholar who lives and works in the multi-cultural city of Durban, South Africa. Within the South African context at the time of my birth, I was classified ethnically as ‘white’ and, as such, was raised within a predominantly segregated Cape Town community in which almost everyone was similarly ‘white’, Christian, spoke English as their mother tongue, and had gone to a school in which ‘Christian National Education’ was enforced under the apartheid regime (Msila, 2007).
In many respects my sense of identity, my understandings of what ‘is’ and what ‘isn’t’, what is ‘right’ and what is ‘wrong’ were dictated by the embedded epistemology and ontology of my circumstances. This epistemology held that ‘we’ were somehow superior to ‘them’ [non-‘white’ South Africans], that the thoughts of other ‘Europeans’ were rational, well-considered, ‘civilised’ and ‘correct’, that ‘science’ formed the basis of Western civilisation and that the understanding of ‘how the world works’ that was presented to me in the classroom and by my elders arose from the intelligent efforts of the many before me, and that it should be accepted in its entirety as seemingly incontrovertible ‘truth’ (Jansen, JD, 2009).

I was indeed fortunate at a critical stage of my development to have attended a particularly ‘liberal’ and ‘anti-establishment’ secondary school, in which I was encouraged to question many of these ‘incontrovertible truths’, to blur the ontological distinction between ‘us’ and ‘them’ and to explore other world views without imposing my own (Bywater, 2005). I emerged from this crucible of reflection and enquiry somewhat more politically enlightened, significantly more culturally sensitive and aware than my siblings and peers, and uncommonly able to communicate in an ‘African’ language, isiXhosa (in addition to the ‘normal’ English and Afrikaans).

In the intervening years I have completed degrees in Music and in Homoeopathy, moved to KwaZulu-Natal and learnt to communicate in isiZulu (a language closely related to isiXhosa), and the forced segregation of South African society under apartheid has thankfully been consigned to history. I currently devote my energies to heading a formal academic programme in Homoeopathy within a University of Technology, teaching philosophy and materia medica to students within this programme, conducting and supervising research, and practicing homoeopathy as a private practitioner. For the past seven years I have also conducted a weekly community clinic in collaboration with a Zulu traditional healer.
1.1.1 A ‘SCIENTIFIC’ PARADIGM

In my academic work within the University, I operate within a ‘scientific’ paradigm that prioritises objectivity, external accountability and a reductionist and linear order (Kurtz, 2000; Lipton, 2005). The University offers a five-year Master’s programme in Homoeopathy in which great emphasis is placed upon the ‘basic sciences’ – physics, chemistry, anatomy, physiology and pathology – which are taught and assessed, and evidently learnt, in terms of the epistemological assumptions and ontological frameworks of the ‘scientific’ paradigm (Andersen, 2001; Castellani, 2003). The emphasis on these ‘sciences’ as a foundation to the academic offering informs subsequent teaching, allows graduates to communicate effectively with patients and other healthcare professionals who operate predominantly within the same paradigm, and affords the programme an assumed ‘legitimacy’ and ‘credibility’ as a robust academic offering. Research conducted within the Department, in the form of clinical trials, microbiological studies and physicochemical analyses adds to the understanding of homoeopathic medicine in terms of the prevailing ‘scientific’ paradigm (Andersen, 2001).

1.1.2 A ‘HOMOEOPATHIC’ PARADIGM

Notwithstanding the value and importance of a ‘scientific’ epistemology in the development and fundamental education of well-rounded, informed and socially-accountable homoeopathic doctors, the ‘homoeopathic’ paradigm, within which my students will build their livelihoods, derives from a very different epistemology. The ‘homoeopathic’ paradigm is highly integrated, holistic and individually-focused. It places great value on subjective ‘truth’, on an individual ‘experience’ (Resch and Gutmann, 1987; Kaptchuk, 1996), and requires imagination, lateral thought and human sensitivity. It speaks in ‘pictures’ and metaphors and is characterised by seemingly loose ‘associations’ and an overt blurring and dissolution of ontological boundaries.
between body and mind, subject and object (Chauhan, 2007; Mangialavori, 2007).

In my work as a homoeopathic doctor and as a teacher of materia medica I am aware of a conflict existing between my understanding of ‘the patient’ in terms of a reductionist epistemology, which views his/her dis-ease as a range of physiological and pathological aberrations or dysfunctions, arranged according to a fundamentally linear ontological framework of ‘cause and effect’ (Lipton, 2005: 73), and a ‘homoeopathic’ understanding that views the same patient as a highly integrated, dynamic ‘whole’, and proposes the treatment of his/her dis-ease in terms of analogies existing between the presenting ‘totality’ and the ‘totality’ of the disease-inducing capacity of a natural substance (Chauhan, 2007).

In recent years I have focussed my research supervision efforts in the area of homoeopathic ‘provings’ [pathogenetic trials] for two reasons: ‘provings’ form the basis of homoeopathic materia medica (Eizayaga, 1991; Sherr, 1994; Hahnemann, 1996; de Schepper, 1999), which is my area of expertise and a personal fascination, and the ‘proving’ of indigenous medicinal substances is an identified niche area of research within my academic department.

In a ‘proving’, a potential homoeopathic medicine is administered, in microdoses and under double-blind conditions, to a population of healthy human subjects (‘ provers’) with the specific intention to induce ‘dis-ease’ symptoms in verum provers (Walach, 1994). These symptoms which are subjective and highly individualised are recorded verbatim in journals. These journal data form the basis of homoeopathic materia medica, and are the bedrock of effective homoeopathic treatment (Sherr, 1994).

The experimental design resembles ‘phase one’ of the randomised controlled trial (Wieland, 1996) and to that extent conforms to the ‘scientific method’ (Kurtz, 2000; Walach, Jonas, Ives, van Wijk and Weingärtner, 2005). The
methodology, which derives from a very different paradigm, is, however, open to scientific criticism on the basis of its emphasis on ‘subjective’ (and, by implication, not objectively verifiable) data, the open-ended nature of the experiment (Kaptchuk, 1996), and the lack of a model for the claimed capacity of microdoses of medicinal substances to induce physiological and pathological changes in healthy human subjects (Dantas, Fisher, Walach, Wieland, Rastogi, Teixeira, Koster, Jansen, Eizayaga, Alvarez, Marim, Belon and Weckx, 2007).

1.1.3 AN ‘AFRICAN’ WORLDVIEW

In my collaboration with a Zulu traditional healer [inyanga – herbalist], over a period of seven years I have been forced to review both the ‘scientific’ paradigm in which I was raised and educated and the ‘homoeopathic’ paradigm in which I teach and practice, in terms of the ‘African’ world view of those patients arriving for our shared consultation from all over the province of KwaZulu-Natal.

This worldview shares with homoeopathy a holistic and integrative epistemology that values subjective experience and makes no ontological distinction between subject and object, body and mind (Ngubane, 1977). Within this paradigm all that exists is infused with ‘spirit’ and is intrinsically connected in a seamless continuum in which Nature, individual, community and ancestors form an interactive, inclusive and dynamic unity (Setiloane, 1986; Ellis, 1999; Dugmore and van Wyk, 2008).

In our shared consultations, the three paradigms I have described are brought into striking juxtaposition: I, as a ‘white’, university-educated, highly-literate, English-thinking homoeopathic doctor join hands with a ‘black’, high-school educated, highly-oralate, isiZulu-thinking traditional healer in witnessing the ‘disease’ experience of predominantly ‘poorly-educated’ oralate isiZulu-speaking patients. The language of communication is isiZulu,
and the ‘story’ is told to both ‘doctors’ equally. I am aware that I ‘confuse’ patients: I am culturally aware and speak isiZulu (not English), I spend time listening (not asking questions), I regard myself as ‘equal’ (not superior), and, in contrast to my allopathic colleagues, I appear to be interested to hear ‘the whole story’ [izinto zonke ezihluphayo]. Patients often need to be coaxed to ‘test the boundaries’ and to go beyond their assumptions of what ‘a white doctor’ is, and I have often been asked at the end of a consultation whether I am indeed ‘isangoma’ [a traditional diviner]. I usually prescribe a single homoeopathic remedy to be taken alongside a traditional herbal medicine prescribed by my colleague.

1.1.4 A RELATIONSHIP BETWEEN PARADIGMS

As I have reflected on what I have observed and learnt in my ongoing attempt to distinguish, differentiate and synthesise three paradigmatic views of health and disease, I have come to appreciate that the ‘reductionist’ understanding of medicinal plants in terms of pharmacologically active chemical constituents has its value and, indeed, is critical to the management of disease in the 21st century. I have also marvelled at the ‘delicate empiricism’ (Naydler, 1996: 70) and wisdom of the African worldview, and the sublime insights and understanding of medicinal plants held within the oral tradition of Zulu traditional healers.

Of critical importance to this study, though, is my sense that the homoeopathic paradigm, and specifically proving methodology (as the source of homoeopathic materia medica), provides a means of bridging these two seemingly ‘opposed’ understandings of medicinal plants: I see direct links to the pharmacology and toxicology of known alkaloids within the symptomatology of specific medicinal plants contained in the materia medica, and I see ‘images’ in the dreams and delusions of individual remedies that ‘look’ like the ‘images’ conjured up by the metaphorical language of African healers and patients.
1.2 THE RESEARCH QUESTIONS

In my conceptualisation and design of this study, I sought to explore the following research questions arising from my understanding of proving methodology and its perceived relationship to the indigenous and rationalist-scientific understanding of medicinal plants.

- Is a microdose of a medicinal substance, such as is employed in homoeopathic provings, able to induce objective changes in blood chemistry in addition to the documented subjective changes upon which homoeopathic materia medica is traditionally based?
- To what extent is proving methodology a mode of scientific investigation that yields consistent and internally coherent data, as evidenced by correlation of subjective and objective data, and relationship of proving data to existing materia medica?
- To what extent does the proving data reflect the pharmacology and/or toxicology of pharmacologically active substances within the crude medicinal plant?
- To what extent does the proving data reflect the indigenous understanding and metaphysical associations of the crude medicinal plant?
- To what extent may homoeopathic proving methodology be seen as a bridge between the indigenous and rationalist-scientific understandings of medicinal plants?

1.3 THE AIM OF THE STUDY

In this study, I aimed to appraise homoeopathic proving methodology as a bridge between the indigenous and rationalist-scientific understandings of medicinal plants through a detailed exploration of the relationships existing
between data derived from respective paradigmatic explorations of a single African traditional medicinal plant, *Strychnos henningsii* [Red bitterberry].

### 1.4 THE OBJECTIVES OF THE STUDY

Towards the achievement of this aim, I conceptualised an inter-paradigmatic study having five defined objectives:

1. To elicit, observe and document the reversible symptom complex and changes in blood chemistry induced by a sample of the bark of *Strychnos henningsii*, in the 30CH homoeopathic potency ($1:10^{60}$), on healthy human subjects, under triple-blind placebo-controlled conditions;
2. To analyse the same sample of the bark of *Strychnos henningsii* in terms of the presence of strychnine and related indole alkaloids, using high-performance liquid chromatography and mass spectrometry;
3. To investigate, document and translate the indigenous understanding and use of *Strychnos henningsii* as a traditional medicine, as derived from semi-structured field interviews of eight Zulu traditional healers living and working in the KwaZulu-Natal region of South Africa;
4. To interrogate homoeopathic proving methodology as a coherent mode of scientific investigation in terms of the quality and consistency of the resultant data sets, the relationship of these data sets to each other, and their relationship to existing homoeopathic materia medica;
5. To determine the extent to which the data derived from the implementation of the homeopathic proving methodology related, respectively, to the phytochemical data and field interview data, and served as a means of bridging these two paradigms of understanding of the medicinal plant, *Strychnos henningsii*. 
1.5 THE ASSUMPTIONS

In conducting this study the following assumptions were made with respect to the implementation of the homoeopathic proving methodology, the phytochemical analysis of the bark sample, and the interviewing of the traditional healers:

- The remedy, *Strychnos henningsii*, was accurately prepared according to the standard for preparation as specified in the German Homoeopathic Pharmacopoeia, First Supplement Edition (Benyunes, 2005) and as described in section 3.2.2.1.2 and *Appendix B*;
- All provers complied with the proving procedures as outlined in *Appendix G* for the entire duration of the proving, including taking the remedy according to the proving design;
- The provers took the remedy in the dosage, frequency and manner required by the proving design;
- The provers were conscientious and accurate in their self-observation and subjective recording of prover journal data;
- The provers did not deviate from their normal lifestyle and dietary habits immediately prior to and for the duration of the proving;
- The handling and processing of blood samples conformed to standards protocols of phlebotomy and medical technology;
- The equipment used for pathological blood testing conformed to minimum standards and were accurately calibrated;
- The conducting of pathological blood testing of provers had no notable impact on the evolution and nature of subjective proving data;
- The transportation, storage and handling of the pulverised bark sample prior to and during phytochemical testing was consistent with good laboratory practice and did not result in spoiling or contamination of the bark sample;
• The equipment used for phytochemical testing conformed to scientific standards and was correctly calibrated;

• The identification of indole alkaloids within the bark of *Strychnos henningsii* did not preclude the possibility of other active principles of diverse chemical natures within the bark sample;

• The traditional healers provided information relating to their understanding of *Strychnos henningsii* in good faith and without distortion;

• The different extraction methods described and employed in this evaluation of three medicinal paradigms affect the nature and action of the medicinal substance as it is used in practice, but has no direct effect on the respective understanding of the medicine, which is the subject of comparison within this study.

1.6 THE DELIMITATIONS

This study did not:

• seek to determine the effect of potencies of *Strychnos henningsii* other than the thirtieth centesimal (30CH);

• attempt to explain the mechanism by which microdoses of *Strychnos henningsii* induce subjective and/or objective changes in healthy human subjects;

• seek to account for all possible active principles within the bark sample of *Strychnos henningsii*;

• attempt to propose a model for the understanding or modes of action of the traditional application of *Strychnos henningsii* as a medicine;

• seek to generalise conclusions to all traditional African medicinal plants.
2.1 INTRODUCTION

You are walking in the street and you come to a strange man. This man does not speak your language. You greet him, he does not respond. Perhaps then your mind begins to twist fearfully. In the eye of your twisted mind, this man looks hideously ugly. Also, in the nostrils of your fear-ridden soul, this man smells strange, offensively strange. Your soul creates an enemy. How to remedy this?

First you must find points of resemblance between you and this man or this woman. First look at yourself and then at this person. The first thing you will find is that this is another human being; and the longer you contemplate, the more you will find that you have much in common. Now this is what mischievous people, self-serving people don't want you to find: a commonality among different peoples of the world, a common ancestry, a common original culture and a common original language. There are barriers in our mind and in our culture that ought to be broken so that we can take a closer interest in each other.

People get hypnotised by the outward appearance of a thing. We are so conditioned to accepting that which is strange as perhaps bizarre, outlandish or ugly, that we often forget that lying behind that strange exterior is a mind like our own. I may imagine the strange person's mind to be just as ugly as I think his or her exterior to be. But if I could reach into the mind of that creature, into the mind of that strange human being, and if that human being could reach into my own mind, we could somehow put an end to each other's fears.

(Mutwa, 1996: 203)
Our perceptions of ‘reality’, and the value and importance we attach to those perceptions, arise from our culturally-driven ethical values, our sense of ‘good’ and ‘bad’ and the value we attach to each (axiology), our sense of what is ‘real’ and ‘exists’ and the relationships we see between these ‘entities’ (ontology), and what we ‘know’ about these things – our acceptance of this knowledge as ‘truth’ and the mechanisms by which we determine this ‘truth’ (epistemology) (Willis et al., 2007: 8).

The understanding of medicinal plants within the rationalist-scientific, traditional African and homoeopathic paradigms similarly derives from their respective epistemologies, ontologies and axiologies. In this chapter, in which I review the literature relevant to the study, I shall present the key elements of the epistemological and ontological understanding of ‘reality’ of each of these paradigms, with specific reference to the respective understandings of plant medicines, and highlight similarities, differences and points of conflict between the respective worldviews. The chapter concludes with a synthesis of the paradigmatic review and an elaboration of its relationship to this study of the Zulu medicinal plant, *Strychnos henningsii*.

### 2.2 THE RATIONALIST APPROACH TO MEDICINAL PLANTS

#### 2.2.1 THE RATIONALIST-SCIENTIFIC PARADIGM

Rationalism is an epistemological position which holds that the test of truth lies in reason and experience (Kurtz, 2000). The commonly held modern exemplification of this epistemological position is the ‘scientific method’. In terms of this method, upon which the Western notion of ‘science’ is based, hypotheses and theories, at least in principle, are to be verified with reference to experimental evidence, and validated through the application of rational principles of consistency and coherence. This methodology of ‘critical
thinking’ (Kurtz, 2000: 1) is viewed as objective and open, in the sense that evidence in support of a hypothesis is open to scrutiny by qualified investigators, who are themselves at liberty to attempt replication of the results. Although theories and hypotheses may relate to human interest, the rationalist position itself is not subjective and prey to emotion and whim. If a claim lacks sufficient evidence and reason to support it, say the rationalists, then it should be rejected or, at least, judgement of the claim should be suspended (Andersen, 2001).

The impact of rationalism on scientific thinking is most clearly associated with the 17th century rationalist philosophy of Descartes (1596 – 1650), who introduced the concept of mind-body dualism (Barrañón, 2009). This Cartesian philosophy, as described in his Treatise on Man, views the operation of the human being as being analogous to that of an automaton, whose functions result from the synchronisation of its organs, which are moved by heat generated in the hearth and communicated by the blood and its spirits. This conception of the human body as a material entity, separated from an immaterial mind, is based upon a determinism which considers the possibility that this human machine may be effectively controlled once the forces that move this machine are known (Barrañón, 2009).

Within his Discourse on the Method (1637) Descartes proposed the reduction of the understanding of a phenomenon to the study of its parts in order to attain a better comprehension of the phenomenon as a whole (Andersen, 2001). From this ‘reductionist’ perspective, the human body is studied in terms of the function of each one of its constituent organs, tissues or cells, and the operation of the whole is understood as the aggregate of the operation of the constituents, analogous to the delicate interaction of components of a clock (Barrañón, 2009). The biological processes responsible for life are, in turn, understood as a sequence of biochemical reactions generated in terms of clear cause and effect mechanistic models (Lipton, 2005).
By extension, a problem in the system, evident as a disease or dysfunction, is attributable to one of the steps along the chemical ‘assembly line’ (Lipton, 2005), and healing is achieved by providing the cell with a functional replacement of the faulty element, most commonly through the prescription of a pharmaceutical drug, or removal of the faulty element (if not considered critical to the functioning of the system) much like the repair of a clock (Barrañón, 2009).

2.2.2 PHARMACOLOGY AND TOXICOLOGY

Plant drugs (also called phytomedicines or phytopharmaceuticals) are plant-derived medicines that contain a chemical compound or, more usually, a mixture of chemical compounds that act individually or in combination on the human body to prevent disorders or to restore or maintain health. Chemical entities are pure chemical compounds (isolated from natural sources such as plants, or produced by chemical synthesis) that are used for medicinal purposes (van Wyk and Wink, 2004). Within the rationalist-scientific paradigm both chemical entities and phytochemicals are understood to produce effects through chemical reactions which are dose-related and measurable and dependent on Newtonian principles of mass-action (Lipton, 2005). The scientific study of medicinal drugs, including their characteristics, actions and uses, is known as pharmacology (Martin, 1998: 502). Many medicinal drugs, regardless of origin, are poisonous in higher dosage, and the study of these effects and those of non-medicinal poisons is known as toxicology (Martin, 1998: 664).

The active chemical compounds in medicinal plants are known as secondary metabolites. In order for a secondary metabolite to be effective as a therapeutic agent it must interfere with an organ, tissue, cell, and ultimately with a molecular target in the human body. Secondary metabolites are usually multifunctional compounds because most of them carry more than one pharmacologically active chemical group. In phytomedicines, secondary
metabolites usually occur in complex combinations. In consequence, a plant extract is likely to affect more than one molecular target, and it is likely that in the application of a phytomedicine several targets will be affected concomitantly (van Wyk and Wink, 2004).

![Figure 1: Overview of Molecular Targets affected by Plant Medicines](van Wyk and Wink, 2004: 23)

Some metabolites mimic the structures of endogenous substrates, hormones, neurotransmitters or other ligands, while others intercalate or alkylate DNA, inhibit DNA- and RNA-related enzymes affecting protein biosynthesis, modulate metabolically active enzymes, or disturb cell membrane stability. Through these interactions (summarised in Figure 1 above), phytochemicals are able to interfere with organ malfunction, inflammation, infection and other pathological processes (van Wyk and Wink, 2004).

Plant-derived secondary metabolites include a wide variety of nitrogen-containing alkaloids, non-protein amino acids, amines, cyanogenic glycosides, glucosinolates and alkamides, and non-nitrogen containing mono-, di-, tri-, tetra- and sesquiterpenes, saponins, steroids, phenylpropanoids, coumarins, lignans, flavonoids, polyacetylenes,
polyketides, fatty acids, waxes and carbohydrates (Mills and Bone, 2000; van Wyk and Wink, 2004). Once restricted to plant bases with a heterocyclic nitrogen atom, the modern, pragmatic definition of alkaloids, includes all nitrogen-containing natural products which are not otherwise classified as peptides, antibiotics, non-protein amino acids, amines, cyanogenic glycosides, glucosinolates, cofactors, phytohormones or primary metabolites (van Wyk and Wink, 2004).

Alkaloids are a vast and diverse group of archetypal plant constituents that have been detected in approximately fifteen percent of plants. They are stored predominantly in tissues that are important for survival and reproduction of the plant producing them. Commonly these tissues, which may contain as much as ten percent alkaloids by dry weight, include actively growing young tissues, root and stem bark, seed, seedlings and photosynthetically active tissues (van Wyk and Wink, 2004).

Alkaloids were the first chemical drugs to be derived from plants (in 1803), and have maintained an important role in conventional drug therapy ever since (Mills and Bone, 2000). Commonly employed isolated alkaloids include inter alia codeine, morphine, atropine, quinine, theophylline, colchicine, pseudoephedrine and vincristine (Mills and Bone, 2000; van Wyk and Wink, 2004). They are potent pharmacological agents that have a high risk of adverse reactions due to their having a wide range of targets which include:

- **Neuroreceptors:** where many alkaloids mimic the functions of neurotransmitters such as acetylcholine, dopamine, adrenaline, glycine etc.;
- **Voltage-gated Na\(^+\), K\(^+\) and Ca\(^{2+}\) channels;**
- **Enzymes which deactivate neurotransmitters:** such as acetylcholine esterase, monoamine oxidase and catechol-O-methyltransferase;
• Transport processes which are important for the uptake and release of neurotransmitters; and

• Modulation of key enzymes such as adenylyle cyclase, phosphodiesterase, phospholipase C and a range of protein kinases (van Wyk and Wink, 2004).

The nitrogen-containing alkaloids are categorised in terms of their basic skeleton (which includes the nitrogen atom). Classes of alkaloids include pyrrolidine, piperidine, pyridine, indole, quinoline, isoquinoline, pyrrolizidine, tropane, carboline, purine, imidazole, quinolizidine, aporphine and terpene alkaloids (Mills and Bone, 2000; van Wyk and Wink, 2004).

2.2.2.1 The Impact on Western Herbal Medicine

Western Herbal Medicine arises from a vitalist traditional medical philosophy which is holistic in its understanding that the plant medicine is more than the sum of its chemical constituents. Some within that tradition would even contend that the ‘active ingredient’ is the plant itself, as an organic whole imbued with a vital identity (Wood, 1997). Sharma (1997) emphasises the synergy arising from the combined action of all the constituents of the plant, and argues that the active ingredient model stems less from the strength of the scientific method than from the inability of reductionist methods to deal with complex systems. Conflict between proponents of the ‘vital’ and ‘active ingredient’ arguments within Western herbal medicine has had a significant effect on such things as method of preparation, dosage and notions of good manufacturing practice (Bone, 2003).

As the practice of herbal medicine has fallen increasingly under the rationalist-scientific spotlight, and been subjected to increasing levels of reductionist investigation, there has been increasing pressure to understand the efficacy of herbal medicines in terms of ‘conventional’ pharmacokinetics (Mills and Bone, 2000), for herbal therapy to be ‘validated’ in terms of
demonstrable pharmacological action (Bone, 2003; Ong, 2004; Sahoo, Manchikanti and Dey, 2010), and for herbal medicines to conform to quality and safety ‘standards’ (Bone, 2003; Ong, 2004; Sahoo et al., 2010). Such ‘standardisation’ takes the form, in most cases, of defining a particular herbal product in terms of measurable amounts of a marker compound which may or may not be the perceived active constituent (Bone, 2003; Ong, 2004).

Although there are arguments around the relationship between levels of a particular marker compound and clinical efficacy, Bone (2003) argues that in order to achieve a consistent level of a marker compound, regardless of whether or not it is the ‘active ingredient’, necessitates consistent quality practices in terms of harvesting, drying, and storage of the raw herb and careful selection and control of solvents, extraction processes and storage. He argues that if a herbal manufacturer is able to ensure a consistent level in terms of the marker compound, then this is “likely to render the extract more or less consistent in terms of other phytochemical components” (Bone, 2003: 11). In the case of compounds with a narrow therapeutic window, chemical entities themselves are used as the basis for standardisation, so as to ensure safety (van Wyk and Wink, 2004).

2.2.2.2 The Development of New Pharmaceuticals

From the perspective of the reductionist paradigm, plant medicines as used in traditional contexts are sources of phytochemicals and resources for the development of new pharmaceuticals (Timmermans, 2003). These may be simple standardised samples or extracts of traditional medicines, subjected to requisite safety and quality controls, definition in terms of pharmaceutical monographs, and marketing in terms of demonstrable effects (Sahoo et al., 2010), or they may be chemical entities, or derivatives of these, isolated from a traditionally used plant and used in specific clinical contexts according to a distinct drug effect determined by Randomised Controlled Trials (RCTs) (van Wyk and Wink, 2004).
In the South African context, such ‘adoption’ and marketing of traditional medicines has been in evidence with the international marketing of *Sutherlandia frutescens* (Cancer bush) and other medicines such as *Harpagophytum procumbens* (Devil’s claw) and *Hoodia gordonii* (the South African Desert cactus) (van Wyk, van Oudtshoorn and Gericke, 2009). Within this context Liu, Van der Kooy and Verpoorte (2009) question whether *Artemesia afra* (African wormwood or Wildeals) is not a potential flagship for Traditional African Medicine (TAM), provided that issues of quality control and the identification of its antiplasmodial secondary metabolites are able to be resolved.

The ‘adoption’ of a traditional medicine such as is described, and the ‘harvesting’ of phytochemicals from a plant medicine known over centuries by traditional communities to be effective in a particular context, raises significant issues of ‘ownership’, and the ethical management of intellectual property rights (Timmermans, 2003). Timmermans (2003: 746) has discussed the threat of ‘biopiracy’, and the ethical dilemmas inherent in practices such as pharmaceutical modification of identified phytochemicals in order to claim ownership. In her discussion she also highlights the considerable benefits which pharmaceutical companies often derive from the exploitation of traditional communities, and calls for an equitable distribution of patent-derived profit.

### 2.2.3 PHYTOCHEMICAL ANALYSIS

Since the rationalist-scientific paradigm is based in chemistry and a linear, Newtonian epistemology, it is of critical importance that those phytochemicals that are assumed or understood to produce clinical effects are able to be identified, verified and, if need be, isolated. The capacity to analyse plant medicines accurately, consistently and reliably is of fundamental importance to the standardisation of plant medicines (as described previously), the
reductionist investigation of claimed therapeutic effects, and the development of pharmaceutical derivatives.

In his investigation of a range of common chromatographic techniques, which included various combinations of high-performance liquid chromatography (HPLC), gas chromatography (GC), mass spectrometry (MS) high-resolution gas chromatography (HRGC) and capillary electrophoresis (CE), Ong (2004) confirmed that ‘hyphenated techniques’ such as HPLC-MS, HRGC-MS and HPLC-MS-MS were unsurpassed as techniques for the chemical characterisation, online composition and structural analysis of phytomedicines.

Ong (2004) specifically discusses HPLC-MS as a technique that is capable of characterizing compounds that are thermally labile and range from small polar molecules to macromolecules, such as peptides/proteins, carbohydrates and nucleic acids. The coupling of the HPLC technique (which allows for the analysis of compounds that are thermolabile and polar, or of high molecular weight) with MS (which allows for the determination of the nature, composition and structure of the analyte) allows for additional structural information for target compounds (Rouessac and Rouessac, 2000). The use of the HPLC-MS technique is limited or restricted to those conditions suitable to MS, whilst the optimal sensitivity of liquid chromatography is affected by pH, solvent choice solvent additives and flow rate (Ong, 2004). The solvents having the strongest eluotropic force on polar normal phase (and therefore most appropriate to the chromatographic separation of plant alkaloids) are (in order of strength) water, methanol and acetonitrile (Rouessac and Rouessac, 2000: 55).
2.3 THE AFRICAN APPROACH TO MEDICINAL PLANTS

2.3.1 HOLISM AND TRADITIONAL MEDICAL SYSTEMS

The term, holism, originally introduced by South African philosopher-scientist, Jan Smuts as a contribution to the philosophy of biology (Smuts, 1926), is frequently invoked in rejection of reductionism. In his *Holism and Evolution* (1926), Smuts argued that not only is the ‘whole’ greater than the sum of its ‘parts’, but that in the synthesis of these individual ‘parts’ to make a ‘whole’ the structure, size and functions of the individual parts (as may be determined via a reductionist methodology) are all altered so that they function *towards* the ‘whole’ (Smuts, 1926: 86). This argument has subsequently been advanced within biology, sociology and several other sciences in the form of ‘systems theory’, which builds on the idea that systemic relations arising at complicated stages of integration may produce new and unpredictable characteristics of the system (Andersen, 2001).

Since the 1970’s an anti-reductionist argument based on general systems theory has forced a re-evaluation of the concept of disease as an exclusively biological phenomenon. The argument holds that all levels of organisation (social, psychological and biological) are linked to each other, and that changes within one level will necessarily induce changes in the others. In terms of this argument, the rules responsible for the collective order cannot be understood merely by characterising each component, but needs to include system characteristics as well. This, in turn, has given rise to an integrated biopsychosocial model of disease (Ataudo, 1985; Andersen, 2001).

Traditional medical systems, as ‘medicine of the people, by the people, for the people’ (Ataudo, 1985: 1345), handed down from generation to generation, necessarily reflect the socio-cultural imperatives of the people
who practice it (culture, customs, belief, behaviour, economic system, political system, etc.) and may be understood to refer to those health practices, knowledge and beliefs (incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises) applied singularly or in combination by a particular traditional community in the treatment, diagnosis and prevention of illness and the maintenance of well-being (World Health Organization, 2008).

Traditional healing systems (of which Traditional Chinese medicine (TCM), Ayurveda, TAM, Western Herbalism and the medicine of the First Nations of the Americas are the most well known) are all constructed from empirical insights, honed by generations of observation of the human condition. Without any instrumentation, meaningful clinical connections are drawn between observed bodily functions in health and in disease, with an underlying assumption that a principle applying at one level of man’s existence applied equally across others. The emphasis is on function and malfunction rather than anatomical structure and pathology. Most principles, which are predominantly pragmatic, are established with the acquiescence and knowledge of the wider population and expressed in the common language. Although there is considerable diversity in the details, and even contradictions, between different traditional systems, there are a number of commonalities with reference to health and disease and the role of medicines (Mills and Bone, 2000: 15):

- medicines, most of which are plant-based, are seen as correcting internal disharmonies rather than targeting symptoms;
- internal disharmonies are understood as subjective matters, often described in climatic or emotional metaphors or by metaphysical constructs, that are widely understood among the general population;
- most internal disharmonies involve literal or substantial disruption in the body, most commonly involving bodily fluids or humours;
• by definition the humours suffuse the body and mind (and often the spirit) equally so that one internal disharmony could affect all planes of experience (there is no Cartesian body/mind split); and
• plant medicines are often classified by the internal disharmony they affect.

2.3.2 TRADITIONAL AFRICAN MEDICINE

“Once upon a time in the heart of the Kalahari, a baby’s cry was heard from inside a hut where a young San woman had given birth to her first child. There was much rejoicing in her clan and, as the days went by, the baby grew strong and happy.

Then one day, while his mother was gathering sticks for the evening fire, the baby suddenly fell ill. He began flailing his arms and cried incessantly. His mother was called to attend to him. She immediately recognised the symptoms and took him to the medicine woman.

The medicine woman looked at the baby and said in San: “Ah, the shadow of the black-shouldered kite has fallen over your baby. You must act fast before its spirit invades him and he starts behaving like the bird. Already he is fluttering his arms. Soon he will start growing feathers.”

With that the medicine woman headed into the dust, instructing the mother to boil water. She returned with some plants pulled out by the roots and boiled them up in the water. When the brew cooled, she strained it, fed some to the baby and rubbed the rest on his arms and body. Within a day he recovered and all signs of him having fallen under the shadow of the black-shouldered kite disappeared.”

(Dugmore and van Wyk, 2008: 80)

Africa is widely regarded as the cradle of humankind and the locus of the first signs of creative thinking and culture. As such, it may be argued that
Traditional African Medicine (TAM) is one of the earliest manifestations of creative thinking arising from millennia of trial and error by the continent’s earliest medical practitioners (Dugmore and van Wyk, 2008).

Although referred to as if it were a single unified system of medicine, TAM practices represent the vast cultural and regional diversity of the African continent itself, a continent in which more than 2 000 languages are spoken within the sub-Saharan region (van Wyk and Wink, 2004). Notwithstanding the cultural, ethnic and biological diversity of the continent, and the influence these might have on the practice of TAM by particular peoples in specific regions, there are commonalities between all the various practices that may be viewed as quintessentially African.

All African systems of traditional medicine, in keeping with other traditional systems, are holistic and inclusive systems in which body, mind and spirit are understood and viewed as a single entity (Ataudo, 1985; Setiloane, 1986; Mills and Bone, 2000; van Wyk and Wink, 2004). The hallmark of African traditional medicine, however, lay in its context of a uniquely African cosmology and Weltanshauung in which all things, animate and inanimate, have spirit – the trees, mountains, animals, us – and where the invisible realms of the spirit are as real as the physical world. Within this cosmology the physical, psychological, spiritual and ancestral worlds are inherently connected, and health and disease are viewed within a ‘chaos-order’ continuum (Dugmore and van Wyk, 2008).

Traditional African people are highly observant of their surroundings and (would) often draw clues from nature, and work these into their understanding of disease processes and their teaching. The story of the San medicine woman cited at the beginning of this section is illustrative of the point: the story is told within the context of *Dicoma schinzii* (Kalahari fever bush), reputed to be effective in the treatment of fevers, especially in infants. Within African mythology, fever is often associated with birds because their
body temperature (between 39°C and 41°C) is so much higher than ours. The story of the black-shouldered kite, and the ‘fluttering of arms’ and ‘growing feathers’ describe, respectively, the onset of febrile convulsions and the development of gooseflesh (Dugmore and van Wyk, 2008). The story holds within its metaphor an accessible and memorable means of identifying a potentially dangerous disease situation (falling under the shadow), a means of evaluating disease progression (birdlike behaviour), and insight into how it should be treated (the vernacular linking of the plant to the metaphor).

It is estimated that about 80 percent of the populations of African rely on traditional medicine for their primary health care needs (World Health Organization, 2008). Within the context of South Africa there are an estimated 200,000 indigenous traditional healers who service an estimated 60 percent of the population (van Wyk et al., 2009) or approximately 27 million people (Mander, Ntuli, Diederichs and Mavundla, 2007). In addition, a study conducted amongst the Xhosa in the Eastern Cape found extensive use of self-diagnosis and self-medication by the laity, one third of which related to medicines taken to promote general well-being, as opposed to ‘treatment’ of a specific physical ailment (Cocks and Møller, 2002).

In the TAM application of plant medicines the whole plant is rarely used. In most cases specific plant parts are used in specific contexts. This, no doubt, arises from the fact that the active ingredients in leaves, roots and bark are often quite different and in some cases one part may be toxic, where another is quite different. In the practice of TAM, roots, bulbs, rhizomes and tubers are commonly used, as are bark and leaves. Woodier stems, flowers (as an isolated component), fruits, seed, gums and exudates are only rarely employed (Hutchings, Haxton Scott, Lewis and Cunningham, 1996; van Wyk et al., 2009).

The most common modes of application are by oral administration of water extracts, infusions or decoctions, or by inhalation (via steaming), enemas or
snuff. Occasional use is also made of linctuses, liniments, lotions and ointments (Conco, 1972; Ngubane, 1977; van Wyk et al., 2009).

2.3.3 THE PRACTICE OF TRADITIONAL AFRICAN MEDICINE AMONGST ZULU TRADITIONAL HEALERS

The Zulus are an indigenous people settled on the eastern seaboard of South Africa. The Bantu Migration theory holds that the Bantu people, who themselves arose from West Africa, commenced a southerly migration from the area of the great lakes, where they had lived for hundreds of years, around 500 CE. Over the course of the southward migration, believed to have been driven by population expansion and the need for grazing, the group diversified into smaller culturally and linguistically defined groups of which four groups eventually crossed the Limpopo into what is now South Africa: the Nguni, the Sotho, the Venda and the Tsonga (now more commonly known as the Shangaan) (Coetzee, 1982).

Figure 2: The Southern Extension of the Bantu Migration
(Coetzee, 1982: 8)
The Nguni, Tsonga and Venda spread into the luxuriant eastern regions and the Sotho occupied the central regions. The Nguni in turn gave rise to the Swazi, Zulu, Xhosa and Ndebele, and the Sotho to the Pedi, Tswana and Sotho. The southward movement became more stabilised towards the end of the 18th century, by which time these peoples had settled down into organised groups, subdivided into smaller groups and established distinctive cultural patterns (Coetzee, 1982).

As Nguni people, the Zulus are therefore, to a greater or lesser extent, culturally related to the Swazi, Xhosa and Ndebele, and their language, isiZulu, is linguistically closely related, respectively, to isiSwati, isiXhosa and isiNdebele. There is some linguistic and cultural blurring at the geographical interface between groupings i.e. as one approaches the KwaZulu-Natal – Eastern Cape and the KwaZulu-Natal – Swaziland borders (Coetzee, 1982).

Fundamental to the understanding of traditional medicine amongst the Zulu people is the concept of health, which is referred to in isiZulu as impilo. Although generally translated as meaning ‘health’, the Zulu understanding of impilo is broader than the Western understanding of health: when a man has impilo, his relations with his natural and cultural environment are healthy, and when he is without impilo, and seeks the help of a doctor or traditional healer, he may not be looking only for a cure for his ailment, but also for the balance of his life (at various levels) to be restored. Traditional healers are often consulted for this purpose of restoring harmony and balance, which may involve re-examining the cause of the misfortune, apportioning blame, and, if appropriate, performing purification rituals and reintegrating the patient into his society (Ellis, 1999).

Within the Zulu understanding of the human condition, the causes of illness may be broadly understood to arise from four sources (Conco, 1972; Ngubane, 1977):
• **The Supreme Being** [uNkulunkulu or uMveliqaqangi], the progenitor of the human race, the great ancestor or ancestral spirit of mankind, who is believed to have created all things (Doke, Malcolm, Sikakana and Vilakazi, 2008). In modern Zulu society, the pagan concept has been modified to incorporate a vague notion of the Christian ‘God’ (Setiloane, 1986);

• **Ancestors** [amadlozi or amathongo], who are believed to look after the interests of their descendents. Illness or misfortune may arise from ancestral anger at their descendents’ neglect of custom, family rituals, or failure to accord due respect to elders;

• **Bewitchment** [ubuthakathi], arising from others’ envy and malice. This may take many forms: a sorcerer may send mythical animals to harm others (e.g. a fantastic dwarf-like water-sprite known as uTokoloshe), some form of bewitchment may be placed on one’s path [umeqo or umbhulelo], or harmful medicines may be placed in one’s food [idliso]; and

• **Pollution**, by transgressing cultural taboos or inadvertent ritual impurity such as handling corpses and sexual intercourse with a menstruating woman.

The term, ‘traditional healer’ is a generic term for a wide variety of healers, diviners, herbalists, clairvoyants, fortune tellers, witches and spiritualists. Although nine categories of traditional healer have been proposed (Erasmus, 1992), there are, in broad concept, two major categories: the inyanga (plural: izinyanga), who is a herbalist, who dispenses (plant) medicines and is almost always male; and the isangoma (plural: izangoma), who is a diviner and makes diagnoses and prescribes appropriate ‘treatment’ which may include medicines and/or a range of ritual practices. Izangoma may be either male or female, although there is a preponderance of woman diviners (Ellis, 1999).

Zulu diviners may be divided into three groups, depending on how they work:
• The ‘head’ diviners [Izangoma zekhanda], who divine by listening to the ancestors and use no material objects;
• The ‘bone throwers’ [Izangoma ezichith’amathambo], who divine from the position and shapes that bones or other objects land in; and
• Those who communicate with whistling spirits [abalozi], who reply directly by whistling words from the rafters.

Figure 3: A Zulu Inyanga (left) and Diviner (right)

The Zulu traditional healers use a wide range of plant medicines, and to a lesser extent animal medicines in the treatment. Extensive use is made of various plant parts, generically referred to as umuthi [plural: imithi], which are applied in a range of dosage forms, in various contexts, in line with the description offered in section 2.3.2 above. One system which is a particular focus of treatment is the gastrointestinal system which is subjected to various rituals of ‘cleansing’ via emetics [imithi yokuphalaza], laxatives [imithi yokuhlambulula isisu] or enemas [imithi yokuchatha] (Ellis, 1999).
Two important elements of Zulu traditional medicine are the use of colour symbolism, and the metaphorical use of magical symbolism and humoral association in both the description and understanding of disease. There are three important symbolic colours in Zulu medicine: black [mnyama], red [bomvu] and white [mhlophe]. All rites of passage (and the progression from a diseased state to one of health is a rite of passage) are understood as following a symbolic movement from ‘black’ (representing the state necessitating the rite of passage) through ‘red’ (a representation of the intermediary state) to the intended ‘white’ state. In the context of healing, black and red medicines [imithi emnyama and imithi ebomvu] are those that expel what is bad from the body, and strengthen the body against further attack, and white medicines [imithi emhlophe] are restorative medicines used to regain health (Ngubane, 1977).

The most important magical symbols of Zulu traditional medicine are the snake [inyoka] and the bird [inyoni]. The notion that snakes are able to reside within the body of an individual is a generally accepted graphic idiom used to represent distress, bewitchment or mental illness. Stomach cramps, and diarrhoea are frequently explained in terms of the movement or biting of an internal snake, and in these cases medicines are applied to subdue or eliminate the snake. The snake is also associated with fertility and childbirth, where it is understood that a snake within the reproductive system (usually due to bewitchment of some sort) may account for difficult conception or stillbirth (Ellis, 1999).

*Inyoni* is thought to be a form in which lightning is able to strike, and the contamination associated with such a lightning strike has been associated with diarrhoea and a white-coated tongue. In some areas sudden chest pain or abdominal pain are thought to be caused by the patient being kicked by a heavenly bird with supernatural qualities (Krige, 1950). The lightning bird [*impundulu*], used in witchcraft, is believed by the Zulu and Xhosa to cause miscarriage, blindness and death. In addition, the Xhosa believe that the
lightning bird is only visible to its owner, and that the bird is a cause of cough, haemoptysis and chest pain – an explanation for the diagnosis of tuberculosis (Conco, 1972; Ellis, 1999).

The Zulu also see disease as arising from excesses of bile [inyongo], which cause headaches, biliousness and general debility, or from contamination or weakness of blood, as the carrier of ‘vital force’ [isithunzi] (Setiloane, 1986), which may account for a wide range of conditions including, physical weakness and debility, mental illness and ‘bad luck’ (Ellis, 1999).

2.3.4 THE MODES OF TRANSMISSION OF KNOWLEDGE

Zulu traditional healers are initiated into their professions through an extended initiation rite known as ukwethwasa [literally meaning ‘to blossom’, or ‘to emerge’, like the new moon (Setiloane, 1986: 16)]. In Zulu Shaman (1996), Mutwa describes his own ‘calling’ to heal, and the process of initiation: as has been described by other authors (Ngubane, 1977; Ellis, 1999; Dugmore and van Wyk, 2008), the ‘calling’ begins with a severe and seemingly life-threatening illness, one which is not able to be influenced at all by medicines, and which is understood to be a ‘possession’ of sorts by ancestral forces. The individual has no choice but to follow his/her destiny, to enter a period of training under a pre-determined inyanga or isangoma in which they must learn how to prepare herbal medicines, how to diagnose illness, and, in the case of izangoma, to incorporate spirits, exorcise witchcraft, and foretell the future. In addition they must learn the tribal and community history and undergo a process of ritual purification aimed at connecting them to the ancestral realm [amathongo] (Mutwa, 1996).

Although the period of ukwethwasa incorporates ritual cleansing and purification, overt teaching, and a period of apprenticeship, those who have undergone the process emphasise the development of a deep contact with the spiritual realm. The traditional healer’s ability to access ancestral
knowledge, to utilise their spiritual insight, and to act in accordance with that realm of existence appears to be the principal source of ‘knowing’ and the primary driver of their actions (Mutwa, 1996; Dugmore and van Wyk, 2008). Even those izinyanga, who follow their calling within a family lineage, and who may have acquired knowledge of plant medicines at their father or grandfather’s side, are required to undergo ukwethwasa as an apprenticeship and as a means of ensuring ancestral support and guidance (Ngubane, 1977).

2.3.5 THE INFLUENCE OF ‘WESTERN’ EPISTEMOLOGY AND AXIOLOGY

Although TAM is firmly rooted in the traditions of the past, contact with ‘Western’ notions of truth and validity have dynamically modified the practice of TAM, brought about an evaluation and re-evaluation of traditional thoughts and values, and enriched the understanding and application of TAM.

In 21st century South Africa, the majority of people using TAM are using it alongside orthodox medicine (Cocks and Møller, 2002; van Wyk et al., 2009), and exercising some discrimination as to which ‘illness’, or component of ‘disease’ is taken to which practitioner. Ellis (1999) cites numerous clinical scenarios in which indigenous patients will modify their elaboration of symptoms and their understanding of their disease in terms of the perceived epistemology and paradigm of the consulting practitioner. Whether the tendency to ignore the cultural axiology when consulting orthodox practitioners arises from internalised ‘colonisation’ (Setiloane, 1986; Anyinam, 1987) or increased exposure to Western forms of education, Christianity and capitalist values, this tendency does suggest some breakdown of the traditional cosmology and culture, or at least an erosion of its epistemological value.
Notwithstanding these elements of paradigmatic conflict, the re-evaluation of TAM through a ‘Western’ lens has enriched traditional medical practice through the introduction of new medicines (so called ‘indigenised medicines’) (Cocks and Møller, 2002; van Wyk et al., 2009), focussed attention on conservation of rare and endangered plant species (Keirungi and Fabricius, 2005; Mander et al., 2007), and the possibility of economic spin-offs arising from research, development and marketing of indigenous plant medicines (Nyika, 2009).

2.3.6 THE SCIENTIFIC INVESTIGATION OF ORAL TRADITIONS

The scientific investigation of TAM, as a system of medicine arising from, and developing within, an oral tradition paradigm poses similar difficulties to the formal documentation and study of any orlate (non-literate) society. Whilst it is possible to de-contextualise the medicines used in TAM and to subject these to a reductionist methodology of investigation (as I elaborated previously in section 2.2), an appreciation of these medicines as they are understood and applied as catalysts of healing is only possible within the context of the orlate society and through the custodians of the arcane knowledge, the traditional healers themselves.

Whilst the qualitative mode of scientific research lends itself to such non-linear, systems theory-based investigation (Willis et al., 2007), Conolly (2002) has identified a number of intrinsic difficulties with the ‘capturing’ of the ‘gestual-oral performance’, as an immediate, context- and audience-driven, creative vehicle of expression of oral-tradition knowledge within the highly-structured, static and inert confines of written text. She has suggested that audiovisual recording is a means of capturing the gestural-visual/oral-aural modes of the ‘performance’, but that it only partially captures the elements of context that impact on the ‘performance’.
The accuracy, authenticity and validity of oral tradition information is additionally impacted upon by the methodology employed in its acquisition (House, 2006; Willis et al., 2007), the worldview adopted in its capturing, rendering and evaluation (Conolly, 2008), and informational distortion and loss at various stages of transcription (conversion of spoken text to written text) (Halcomb and Davidson, 2006; House, 2006), translation (conversion of written text in a source language to written text in a target language) (Schäffner, 2004) and transliteration (rendering of written text in one script to written text in another script).

Where the source language (SL) and worldview of the oralate community differs from that of the target language (TL) community, a number of additional issues are raised with respect to translation, and particularly the translation of culture-specific concepts (CSCs), and incorporation of allusions (cultural reference points which are taken for granted by the SL speaker) (Albakry, 2005). Newmark (1991) speaks of a continuum existing between ‘semantic’ translation (that attempts to produce the precise contextual meaning of the original within the constraints of the TL grammatical structures, taking into account the aesthetic value of the SL text) and ‘communicative’ translation (that attempts to render the exact contextual meaning of the original in such a way that both content and language are readily acceptable and comprehensible to the reader). In the translation of text that is rich in cultural allusion and CSCs, Albakry (2005) cites the judicious use of explanatory footnotes as an effective means of providing the closest approximation of the SL meaning (in the sense of a ‘semantic’ translation), without undue impact on reading and comprehension (as features of ‘communicative’ translation).

A range of protocols for the translation of written SL text to written TL text have been proposed. One effective method, which makes allowance for the effective translation of CSCs and allusion is the collaborative translation protocol (Pavlovic, 2009). In this protocol, translation is effected by pairs of
translators, each being a mother tongue speaker of the opposite SL and TL languages. The written text TL translation arises out of a collaborative interaction between the two translators, in which the two respective translation efforts are compared, discussed and modified to an acceptable point. This protocol is described as being particularly useful as a means of developing translation competency in novice translators (Pavlovic, 2009: 102), although the possibility that one translator may accede to the other (more assertive) translator has been identified as a weakness to be guarded against (Pavlovic, 2009: 97).

2.4 HOMOEOPATHIC PHILOSOPHY AND SCIENCE

2.4.1 HIPPOCRATES, HAHNEMANN AND HOMOEOPATHY

The word, homoeopathy, is derived from the Greek words *homoion pathos* meaning “similar disease” and denotes a system of medicine that treats disease by using medicinal substances that are able to produce similar symptoms in healthy persons when ingested by them (Hahnemann, 1996) – prescription on the basis of similitude (Eizayaga, 1991).

The application of similitude as a therapeutic principle finds its first Western trace in the ancient Greek myth of Telephos, king of the Mysians, who was accidentally wounded by the spear of Achilles when the Greeks were on their way to raid Troy. When the wound did not heal, and festered, he asked Pythia, the prophetess of Delphi, for advice and she gave him the cryptic answer, “*Ho trosas kai iasetai*” – “He who has slain the wound will cure it again.” Telephos then visited Achilles, who applied some of the spear’s rust to the festering wound, which subsequently healed (Walach *et al*., 2005).
Hippocrates (c.460 – c.370 BCE) also applied the principle, and its opposite, as part of an encompassing view of health and disease which acknowledged the roles of observation and rational investigation in the understanding of disease, and the contributions of diet, environment and medicine in the restoration and maintenance of health. It was Hippocrates who argued that there are two possible ways of curing disease: by the application of contraries (“contraria contrariis curentur”) or by application of similars (“similia similibus curentur”) (Eizayaga, 1991). The principle of contraries would be followed by Galen in the second century, and continue into modern times as the dominant approach to medicine, whereas the principle of similitude would not find notable favour until the writings of Paracelsus (1493 – 1541) in the 16th century.

Paracelsus was an eclectic follower of Hippocratic teachings and an avid ‘vitalist’. He subscribed to the notion of supporting the innate self-healing capacity of Nature (the “vis medicatrix naturae”) through minimal application of medicine, and believed that this was most easily achieved by the application of the ‘similar’ remedy, as suggested by Hippocrates. Paracelsus however sought similitude by inference, through the ‘doctrine of signatures’ which held that the therapeutic properties of medicines were divinely ‘inscribed’ in the very nature of the substance: a plant that yielded a sap resembling bile would be effective in the treatment of bilious conditions, a plant producing a bright red inflorescence may be useful in the treatment of fever and inflammation (van Wyk and Wink, 2004; Ball, 2007; Dugmore and van Wyk, 2008).

Some 250 years later, the German physician, Samuel Hahnemann (1755 – 1843) brought the principle of similitude into concrete practice through his systematic implementation of a methodology for evaluating the therapeutic potential of drugs by testing medicines on healthy subjects known as homoeopathic proving. Whilst the principle of testing medicines (of any type) experimentally was new in Hahnemann’s time, other researchers, such as
the Swiss physician and researcher von Haller, had already suggested that such experimentation would make treatment more certain (Jütte, 1997). Hahnemann’s revolutionary insight was to combine the principle of similitude (understood from his studies of Hippocrates, Paracelsus and contemporary writers such as Stoerck) (Eizayaga, 1991; Haehl, 2003) with the Goethean [Johann von Goethe (1749 – 1832)] mode of scientific investigation which favoured quality over quantity, and prioritised astute observation of phenomena, development of the senses, and the human being as the most sensitive scientific instrument (Naydler, 1996) and to use this information in therapy (Walach et al., 2005).

In the implementation of his emerging methodology of proving, Hahnemann developed a further revolutionary insight which he called ‘dynamisation’ or ‘potentisation’. Although a case is able to be made that the underlying concept of ‘potentisation’ had been around at least since Paracelsus, who spoke of letting the ‘spirit’ of substances free, Hahnemann’s practical application was unique (Walach et al., 2005). Hahnemann found that administration of crude doses of medicinal substances to provers, who were initially his family and students, often produced toxic or notably unpleasant effects and appeared to need dilution.

He developed a process of stepwise dilution (by a ratio of 1:100) and succussion. Application of this repeated process of dilution by a ratio of 1:100 implies that after twelve such ‘dilutions’ (a dilution ratio of 1:10^{24}) not one molecule of the initial substance, statistically speaking, ought to be present in the homoeopathic remedy. At the time, Hahnemann would not have been aware of Avogadro’s number (6.023 x 10^{23}), and therefore would not have been able to calculate that any dilution by a factor beyond 10^{24} (what is now termed a 12CH potency) would imply the presence of not a single molecule of the original substance. He did, however, guess that he would have little or none of the starting substance as he increased the number of cycles of dilution and succussion, and, therefore, called his remedies ‘dynamisations’
or ‘potencies’ – in reference to what he observed to be increasing therapeutic effect as the original medicinal substance became more attenuated (Walach et al., 2005).

It is the predominant use of ‘high potencies’ (potencies beyond the 12CH) within homoeopathy that accounts for its tension with modern science, because there is currently no accepted rational theory that could explain an increased therapeutic effect with decreasing amounts of the medicinal agent, even to the point of there being no molecules of the initial agent present at all (Walach et al., 2005) [see 2.4.4 below].

2.4.2 THE HISTORY AND EVOLUTION OF HOMOEOPATHIC PROVING METHODOLOGY

Homoeopathic provings form the basis of homoeopathic science (Sherr, 1994; Walach, 1997). They are the primary source of knowledge of the curative scope of homoeopathic remedies, and a large part of homoeopathic practice is based upon data derived from proving (Walach, 1997).

In a homoeopathic proving – also referred to in the modern literature as a homoeopathic pathogenetic trial (HPT) – a homoeopathically prepared substance is administered to healthy volunteers with the specific aim of eliciting disease symptoms (Walach, 1997). The symptoms elicited represent the disease-causing capacity of the test substance, and therefore also its curative capacity when applied homoeopathically to diseased individuals (based upon similitude). Through proving, an unknown medicine is provided with a ‘picture’ which represents the changes in mental, emotional and physical functioning induced by the medicine, and is subsequently able to be meaningfully used in homoeopathic practice. Provings therefore represent the experimental base of clinical homoeopathy (Signorini, Lubrano, Manuele, Fagone, Vittorini, Boso, Vianello, Rebuffi, Frongia, Rocco and Pichler, 2005), and every homoeopathic prescription should, ideally, be based upon the
comparison of the individual patient’s presenting symptomatology to symptomatology elicited in formal provings of homoeopathic medicines (Dantas, 1996).

Homoeopathic proving finds its formal origin in a well-documented self-experimentation by Hahnemann with Cortex peruvianis (Peruvian bark) in 1790. The catalyst for this self-experiment was Hahnemann’s translation into German of William Cullen’s Treatise on Materia Medica (Second edition, 1789), in which the author attributed the antimalarial properties of the bark to its bitter taste and action as an astringent. Hahnemann disagreed with the author, on the basis that a large number of known bitter astringents evidently had no notable effect in malaria, and that these properties therefore could not exclusively account for the clinical efficacy of the bark (Cook, 1989). His self-administration of four dram doses of crude bark induced symptomatology which he recognised as being similar to those of malaria, and Hahnemann included the details of his experiment, and his assertion that the therapeutic effect may arise from the capacity to induce similar symptoms in healthy individuals, in a footnote to this section of his translation (Haehl, 2003).

Hahnemann continued to explore the observed relationship between the toxicological and therapeutic effects of substances and, after investigation of reports of poisoning and overdosing in the literature and further experiments on himself and on his family, published his essay, Upon a New Principle for Ascertaining the Curative Power of Drugs, in Hufeland’s Journal in 1796 (Haehl, 2003). In this essay, which represents the birth of homeopathy, Hahnemann outlined the basis of homoeopathy, according to the proving of drugs on healthy persons, and the administration of medicines according to the Law of Similars (Eizayaga, 1991).

Hahnemann continued to experiment with other natural substances and over time elaborated a methodology for the reliable testing of the curative effect of medicinal substances using healthy human volunteers, which he called
‘prüfung’ (meaning ‘experiment’ in his native German), and which has been anglicised somewhat inaccurately to ‘proving’. He argues for provings to be conducted on ‘healthy’ subjects, as opposed to ‘the sick’, on the basis that health can be scientifically understood, but that disease can only be perceived as a deviation from a state of health. If the experiment were to be conducted on a sick person, one would not observe the pure medicinal effect because the changes, symptoms and effects on psyche and soma which the medicine might induce would always in some way be mixed up with those of the natural disease already present. He understood disease as a ‘chaos’ and as a consequence, not directly accessible to scientific investigation (Hahnemann, 1996). A healthy prover is able to provide a familiar basis for the experiment (a ‘normal’ reference point), and by comparing the medicinal effects on the healthy body to those of the prover prior to administration of the test substance, it is possible to ascertain the pure medicinal effect (Resch and Gutmann, 1987).

In conducting his provings, Hahnemann held the belief that an authentic, pure, reliable collection of symptoms, free of conjecture, fabrication or assumption, was the goal. To this end he aimed to reduce extraneous variables and minimise bias by selecting trustworthy and conscientious volunteers who were able to carefully observe, and accurately describe symptoms and sensations, using only single substances in their purest form and in moderate doses, and by setting strict rules with respect to diet and lifestyle, and by insisting that provers should avoid any abnormal exertion of body and mind (Raeside, 1962; Hahnemann, 1996; Dantas et al., 2007). His methodology and instructions for homoeopathic proving, which form the basis for more modern homoeopathic methodologies (Demarque, 1987; Sherr, 1994; International Council for Classical Homoeopathy, 1999; Herscu, 2002), are outlined in aphorisms 105 to 145 of his Organon of the Medical Art (Sixth edition) (Hahnemann, 1996), and his provings published in his Materia Medica Pura between 1825 and 1833 (Fisher, 1995).
2.4.2.1 Placebo and Blinding

Whilst Hahnemann made no use of placebo in his provings, and viewed what we now understand as blinding to be an unnecessary deception of provers (Haehl, 2003), most modern proving methodologies make use of both placebo and blinding.

Placebo-controlled double-blind studies are required to illustrate whether effects produced by a given medicinal intervention are reasonably attributable to the intervention, or whether these effects arise from the experimental context itself or are placebo effects. During such studies, randomisation is carried out by a third party, and participants are given either the active verum or an inactive placebo without anyone involved in the study being aware of who received which (Walach, 1997).

The first record of blinding and placebo controls in the history of medicine was in a homoeopathic proving conducted in 1835 (Stolberg, 2006), and a circular attached to the Report of the Directors of Provings that appeared in The Transactions of the Thirty-Eighth Session of the American Institute of Homoeopathy held in St. Louis in 1885 lists rules for drug experimentation which include, amongst others, that the name and nature of the test substance should be safeguarded in order to guard against false symptoms (blinding) and that blanks containing only the medicinal vehicle (placebo) should be freely interspersed, as a safeguard against symptoms related to prover idiosyncrasy or imagination (Herscu, 2002). The first suggestion of a pre-observation ‘run-in’ period to prepare the subject was made in 1895 (Dantas et al., 2007). Masked studies and placebo controls were introduced into conventional medicine in the 1920’s (Herscu, 2002).

The double-blind technique, with placebo, is believed to have been formally introduced into homoeopathic proving methodology by Bellows during his 1906 re-proving of Belladonna (Smith, 1979), although Demarque (1987)
contends that this was merely a perfection of a technique already in application. In his argument in favour of ‘good’ homoeopathic proving guidelines, Wieland (1997) has questioned the validity of the inclusion of a placebo control in proving, since the purpose of homoeopathic proving is to produce symptoms and not to illustrate the effectiveness of the drug in the treatment of a specific ailment (Wieland, 1997).

The role of placebo and blinding in homoeopathic proving has been a subject of investigation by a number of researchers: In a study investigating whether proving symptoms were the result of local, non-local or placebo effects (Walach, Sherr, Schneider, Shabi, Bond and Rieberer, 2004), the researchers concluded that during the proving period, there were both more typical and atypical symptoms in the verum group as opposed to the placebo group relative to their respective baselines (in which no pre-proving difference was discerned). In a comparison of a placebo-controlled proving of Plumbum metallicum to a traditional (unblinded and not placebo-controlled) proving of Plumbum metallicum (Signorini et al., 2005), the researchers, similarly found that there were fewer mental symptoms in the placebo group, and that unusual symptoms did not reflect similarly in the two groups. Researchers have also noted that the narratives of placebo and verum provers also differ in terms of clarity of expression, and the provers’ capacity to elaborate on symptoms and modalities during symptom verification (Rosenbaum and Waissen-Priven, 2006).

The Recommended Guidelines for Good Provings of the International Council for Classical Homoeopathy (1999) recommends a prover population of 10 to 20 provers, of whom 10 to 30 percent are to receive placebo. Sherr (1994) contends that a well-constituted proving should include 12 to 15 verum provers.
2.4.2.2 Data Collection and Symptom Verification

The intrinsically subjective nature of proving data poses certain problems in terms of ensuring the quality of the data capturing process (in most cases through journaling), the discrimination of what may be understood as the ‘pure drug effect’, and the verification of symptoms, both within the process of proving and in its subsequent application in a clinical context.

Dantas et al. (2007) have drawn attention to the formal introduction in 1895 of a pre-observation run-in period. This methodological addition has been broadly adopted, and is recommended by Sherr (1994), Riley (1997), Walach (1997) and other modern authorities (International Council for Classical Homoeopathy, 1999) as an essential component of the modern methodology, as the run-in journal data (in combination with the pre-proving case examination) serves as a baseline control for each individual prover. More than one investigator of proving methodology and phenomenology (Milgrom, 2007; Jansen, JP, 2008) have argued that this component of the modern methodology is more critical than the use of placebo provers. Sherr (1994) advocates that, on completion of the proving, a post-proving case examination should be conducted [see 2.4.3.3 below] and a group discussion around proving symptoms should be conducted (as a means of discriminating refining symptomatology) (Sherr, 1994).

Since the discrimination by a proving researcher of whether to include or exclude a symptom as a proving symptom is susceptible to bias or pre-conception, most modern authorities have provided guidelines for this process of discrimination (Riley, 1997; International Council for Classical Homoeopathy, 1999). As an additional mechanism of eliminating bias at this level of symptom verification, some proving researchers have adopted a triple-blind design in which the individual/s responsible for the final discrimination of what is a true proving symptom, in addition to the usual double-blind experimental conditions in which the allocations of placebo and
verum are unknown to both prover and researcher, are also blind to the identity of the proving substance (Cámpora, 1999).

### 2.4.2.3 Potency selection

Although Hahnemann conducted his first proving with the substance in tincture form or in the first or second trituration [a concentration of $1:10^2$ or $1:10^4$ in a lactose base] (Walach et al., 2004), his final pronouncement, in the Sixth edition of his *Organon* (Aphorism 128) is that four to six globules of the 30\textsuperscript{th} centesimal potency [designated as a 30CH potency, and having a theoretical concentration of the base substance of $1:10^{60}$] should be dissolved in water, and taken orally once daily on an empty stomach (Hahnemann, 1996).

Sherr (1994) has used a wide range of potencies from the 6CH to the 1M (one thousandth centesimal; $1:10^{2000}$), although he maintains that it is equally valid to employ only one potency (Sherr, 1994). In his proving of *Hydrogen* (which utilised a range of potencies between the 6CH and the 200CH), he found that the 30CH produced the most symptoms at the mental and emotional levels, contrary to the expectation that the 200CH would produce more mental and emotional symptomatology (Sherr, 1992).

In contrast to both Hahnemann and Sherr, Vithoulkas (1986) recommends the utilisation of the very lowest potencies (1X to 12X [$1:10$ to $1:10^{12}$] of the base substance depending on the toxicity of the crude substance (i.e. crude but sub-toxic doses). Raeside (1971) also used potencies below the 12CH [a theoretical concentration of $1:10^{24}$] potency (as well as the 12CH and 30CH potencies) in his proving of *Mimosa pudica*, and Riley (1995a; 1995b) utilised only the 12CH in his proving of *Geranium robertianum* and *Veronica officinalis*. In view of Sherr and Hahnemann’s assertions, and in light of the evident lack of clarity around the use of lower potencies, the norm adopted
for provings conducted at the Durban University of Technology has been to utilise a 30CH potency (Ross, 2009) [see 2.4.6 below].

2.4.2.4 Methodological Variation

In a review of 156 provings [HPTs] on 143 medicines conducted between 1946 and 1995, Dantas et al. (2007) concluded that there was considerable methodological variation, many HPTs were of poor methodological quality, and that although there was generally a high incidence of pathogenetic effects, some of these may be attributable to design flaws. Identified weaknesses included small sample sizes, absence of proper randomisation, blinding and placebo control and poorly defined criteria for analysis. On the basis of their review they were unable to confirm that high potencies of homoeopathic medicines do indeed produce changes in healthy individuals, and highlighted the need for an increase in methodological rigour (whilst acknowledging that provings of the latter two decades were generally less methodologically flawed).

Notwithstanding an emerging consensus on the optimal methodology for proving (Sherr, 1994; Riley, 1997; Walach, 1997; Wieland, 1997; International Council for Classical Homoeopathy, 1999; Jansen, JP, 2008; Ross, 2009), many new provings use different and varying protocols and methodologies. These include dream provings (Smith, 1979; Sankaran, 1995), meditative provings (Griffith, 2007), and ‘C4’ proving methodology (Timmerman, 2007).

2.4.3 THE ETHICS OF PROVING

The concept of intentionally administering medicinal substances to healthy individuals for the express purpose of eliciting symptoms appears to be in contradiction to societal ethical norms. Both homoeopathic provings (HPTs)
and Phase one RCTs do, however, include the concept, albeit for different purposes and within different methodologies and paradigms (Wieland, 1996).

Wieland (1996) has questioned whether HPTs are not simply Phase one RCTs and has identified the following similarities and differences: In both research contexts, the set-up medication is administered to a small number of healthy volunteers; the effects are accurately observed and documented; non-medicinal substances are used as control; and conclusions regarding the effects of the administered medication on healthy subjects are derived. He emphasises that, whereas RCTs are ultimately aimed at assessing the efficacy of a drug in specific medical conditions (side effects are investigated in Phase two), provings are not used for testing efficacy in specific medical condition and are never conducted on patients. He concludes that provings are a ‘homoeopathic version’ of a Phase one RCT, in which Phases two to four are unnecessary as provings are always conducted at a non-toxic level \([1:10^{60}] \) (and therefore carry no risk of side- or toxicological effects).

The International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH) arose in Brussels in 1990 out of a need for an independent international evaluation of medicinal products prior to release onto international markets. Their secretariat is located in Geneva and their terms of reference revolve around safety, quality and efficacy as a basis for approval and authorizing of medicinal products within the European Union (EU), Japan and the United States of America (US).

The ICH consists of:

- the EU European Commission;
- the European Federation of Pharmaceutical Industries and Associations;
- the Ministry of Health, Labour and Welfare (Japan);
• the Japan Pharmaceutical Manufacturers Association;
• the Federal Drug Administration (US);
• Pharmaceutical Research and Manufacturers of America; and
• The International Federation of Pharmaceutical Manufacturers Associations [representing the research-based pharmaceutical industry and other manufacturers in 56 countries].

Their activities are observed by the World Health Organisation, the European Free Trade Area, represented by Switzerland, and the Canadian Drugs Directorate.

Their Revised Terms of Reference (2000) are to:
• maintain a forum for constructive dialogue;
• contribute to the protection of public health from an international perspective;
• monitor and update harmonised technical requirements towards greater mutual acceptance of R&D data;
• avoid divergent future requirements, and development of new technologies;
• facilitate the adoption of new or improved R&D approaches without compromising safety; and to
• facilitate dissemination and communication of information on harmonised guidelines and their use (European Committee for Homeopathy, 2004).

In response to Chapter six of the ICH Guideline for Good Clinical Practice (GCP) relating to clinical trial protocol and protocol amendments (International Conference on Harmonisation, 1997), the Drug Proving sub-committee of the European Committee for Homoeopathy (ECH) formulated Homeopathic Drug Proving Guidelines, based upon the overlap between HPTs and Phase one RCTs. These guidelines cover all aspects of proving,
including benefits and risks, blinding, selection and withdrawal of subjects, treatment of subjects, ethics, assessment of safety, statistics, data handling, case reports, journaling, and reporting and have been adopted as the international standard for homoeopathic proving (European Committee for Homeopathy, 2004).

2.4.4 THE SHORTCOMINGS AND CRITICISMS OF HOMOEOPATHY AND HOMOEOPATHIC PROVING METHODOLOGY

Since homoeopathic proving (‘producing symptoms in healthy people using ultra-dilute medicinal substances’) is simply the other side of the homoeopathic treatment (‘producing healing responses in diseased individuals using ultra-dilute medicinal substances’) coin, many of the shortcomings and criticisms of proving methodology are directly related to broader criticisms of the homoeopathic method itself. All of these are inextricably tied up with the lack of a suitable model to explain how ultra-dilute medicinal substances are able to produce biological effects. Several local mechanistic and non-local quantum models have been proposed, but whilst some have been discussed at high levels most remain speculative (Walach et al., 2005).

2.4.4.1 Local Mechanistic Models

Local models start from the assumption that the process of remedy production produces some kind of template, image or imprint of the original substance, and that this ‘information’ is the active ingredient. The ‘memory of water’ is claimed as one potential mechanism (Rey, 2003) although the operation of this ‘memory’ is not clear. A number of possible mechanisms have been proposed. These include: a selection of water isotopes specific to an originally dissolved substance (Berezin, 1990); a three-dimensional ‘clathrate’ model of water macrostructures that hold the information about substances within their geometric ordering (Anagnostatos, 1994); and a
selective change in hydrogen bonding, long-range coherence, between water molecules that gives potencies laser-like behaviour (Del Guidice and Preparata, 1998). It is unclear how a biological system would use such information to restore health, although local models are compatible with a network theory of health, which proposes that only a minimal, but highly specific energetic impulse (‘ordering information’) is required to stimulate auto-regulatory systems (Hyland and Lewith, 2002).

2.4.4.2 Non-Local Quantum Models

The famous Einstein-Podolsky-Rosen (EPR) thought experiment, performed in 1935 as an effort by Einstein and his co-workers to demonstrate theoretically that quantum mechanics can lead to implausible constellations of particles, showed that, according to the laws of quantum mechanics, situations are possible in which two particles are correlated, independently of the distance between them (Wilczek, 2008). Schrödinger referred to these apparent ‘non-local’ correlations within quantum systems as ‘entanglement’, but it was not until 1982 that Aspect et al. could demonstrate that entanglement indeed is possible within quantum physical systems. Entanglement has been a topic of research within physics ever since (Weingärtner, 2005).

The failure to define and measure the therapeutic active ingredient within homoeopathic medicines, in part due to a failure to identify the quality of matter in which it is reflected, has led to the exploration of ‘entanglement’ as a possible explanation for homoeopathic effects (Milgrom, 2002; Walach, 2005; Weingärtner, 2005; Milgrom, 2007). Proponents of the ‘entanglement’ model argue that while non-local correlations operating within well-defined quantum systems do decay through interaction with the environment, it might be the case that under similar isomorphic conditions, non-local correlations are established in analogy to holistic quantum correlations. While some observations support such models (Wackermann, Seiter, Keibel and Walach,
2003), direct experimental evidence for the existence of non-local correlations outside the realm of quantum mechanics (Walach et al., 2005) and clear explanations of how homoeopathic remedies could evoke quantum non-locality remain elusive (Fisher, 2003).

In the absence of a clear model, the question may be asked: Is the administration of an ultra-dilute medicine, in which not a single molecule of the original substance remains, able to induce objective pharmacological effects in healthy human subjects? The Dantas et al. review (2007) was inconclusive, although a pilot ‘re-proving’ study which sought to determine whether homoeopaths could identify an existing remedy on the basis of their own proving symptomatology found in favour of an identifiable and consistent proving effect (Vickers, McCarney, Fisher and van Haselen, 2001).

2.4.5 THE MODERN TRENDS IN HOMOEOPATHIC UNDERSTANDING AND ANALYSIS

2.4.5.1 The Homoeopathic Materia Medica

In the 220-year history of Homoeopathy, the science has accumulated a vast materia medica of some 3,000 remedies derived from plant, animal and mineral sources. The modern homoeopathic materia medica also includes potencies of antibiotics and other orthodox drugs, bacteria and viruses. Typically the materia medica consists of very precise psychological, emotional and physical symptomatology (including dreams, sensations and delusions), and a record of factors modifying the expression or experience of specific symptom manifestations (Vermeulen, 1994). This inherently complex data (derived principally from provings) is supplemented by symptomatology derived from clinical application of the particular remedy, toxicology and information around the natural history of the source material (Mangialavori, 2005).
To facilitate identification of the appropriate remedy for any individual homoeopathic case, reference is made to an indexed cross-reference text, termed a repertory, which contains the abbreviated names of all the remedies known to produce a particular symptom. In recent years there has been shift in thinking around acquisition of materia medica knowledge and remedy differentiation, from a ‘remedy A, remedy B, remedy C’ mindset to one based upon remedy clusters around taxonomic classifications e.g. ‘snake venoms’, ‘spiders’, ‘calcium salts’ or ‘the Solanaceae plants’. Within this mindset, remedies are understood initially in terms of their broad taxonomic identity, and thereafter as a specific ‘refinement’ of the broader understanding (where each is contrasted with other remedies within the same taxonomic category) (Scholten, 1996; Sankaran, 2002; Shore, Schreibman and Hogeland, 2004; Mangialavori, 2005; Mangialavori, 2007; Scholten, 2007).

2.4.5.2 Comparative Materia Medica, Group Analysis and Miasmatic Theory.

The homoeopathic materia medica represents an extremely vast corpus of highly specific symptomatology, which, in the modern era is all but impossible to memorise (Candegabe, 1997). Hahnemann himself recognised the difficulties associated with matching precise proving data to precise patient data in his call for the development of the repertory by Jahr (unsuccessfully), and ultimately by Boeninghausen in 1832 (Haehl, 2003). Notable authors and teachers following in the footsteps of Hahnemann have, to the same end, attempted to emphasise particular ‘characteristic’ symptomatology within individual remedies, so as to aid memory and facilitate recognition at the bedside (Hering, 1990; Allen, 2006; Boger, 2008).

The advent of truly comparative materia medica, heralded by the writings of Farrington (1847 – 1885), shifted the study of materia medica from a ‘remedy A, remedy B, remedy C’ methodology to one of familiarising the homoeopath with similarities and differences between the large number of remedies
In most instances it is relatively easy to differentiate remedies where their symptomatology diverges, but rather difficult to discriminate convergent symptomatology (Farrington, 1991). Candegabe utilises what he terms ‘the minimum syndrome of maximum value’ (1997: 294) as a basis for comparison, arguing that even though two remedies may appear to be very similar they can be distinguished by the presence of a single characteristic symptom which is unique to one of them.

He has observed that with each repertorisation of an individual case there are several remedies having similar symptoms to those of the indicated similimum, and that, despite the laborious and repetitive nature of the process, repertorisation is in itself a study in comparative materia medica. The study of comparative materia medica through repertorisation has other advantages in that it facilitates the understanding of less familiar remedies, and highlights not only similarities, but also points of differentiation. Aside from the effect of clinical experience, the combined study of both materia medica (in the sense of pure drug effects) and repertory (in the sense of these effects in comparison to the pure drug effects of other remedies) allows for the most complete understanding of the remedy (Candegabe, 1997).

Prior to the described stage of familiarity borne of years of accumulated study and experience, the acquisition of materia medica knowledge, and capacity for remedy differentiation, may be facilitated by the adoption of an analytic method called group analysis. This much sought-after method arose from Scholten’s study of the mineral remedies (1993), in which he studied materia medica similarities between (proved) mineral salts having either a similar cation (e.g. Sodium chloride, Sodium phosphate and Sodium carbonate) or similar anion (Sodium phosphate, Magnesium phosphate and Calcium phosphate). From this he attributed particular symptomatology to each pole, and constructed an understanding sufficient to extrapolate a proposed symptomatic presentation of even unproved remedies e.g. Calcium chloride (Scholten, 1993). In more recent years the scheme has evolved to allow for
extrapolation of ever more obscure minerals and mineral salts e.g. Cobalt fluoride, and Europium phosphate (Scholten, 1996; Scholten, 2007).

The general principles and methodology (if not the ‘presumptive’ aspect of remedy extrapolation) have been adopted and refined by other authors, and applied to various taxa of the animal and plant kingdoms (Sankaran, 2002; Shore et al., 2004; Mangialavori, 2005). Whereas most authors adopt a group classification strictly based upon taxonomic classification (i.e. the ‘Compositae’ group consists exclusively of plants taxonomically classified as Compositae), Mangialavori is somewhat unique in arguing that whilst most members of a taxonomic grouping may share significant commonality, there will be members that are not characteristic (and should be excluded), and remedies from unrelated taxonomic classifications which may share commonality and should be included (Churchill, 1999). An example of this would be his exclusion of Capsicum annuum [Solanaceae] from his ‘Belladonna [Solanaceae]’ group, whilst including Cuprum metallicum [metallic copper] and Gallicum acidum [gallic acid] that derive from the mineral kingdom (König and Santos-König, 1996).

Sankaran has described the general features of patients requiring remedies from the animal, mineral and plant kingdoms. He argues that the patient requiring a mineral remedy perceives reality from the perspective of ‘structure’: he/she is pragmatic, clinical, and views reality in terms of his position within a structure, his/her position within relationships, his/her role within a community. He/she would preferentially enter a profession which is stable, predictable, secure, defined, and would describe his/her symptomatology in a measured, factual and pragmatic manner (Sankaran, 2005).

The patient requiring a remedy from the animal kingdom, by contrast, perceives his/her reality in terms of a victim-aggressor ‘competitive’ dynamic. He/she is assertive, jealous, competitive, sensitive to domination, and is
reactive, restless and perhaps vengeful. The patient is alert and animated, and uses language suggestive of attack, defence and domination (Sankaran, 2005). Elaborate systems for discriminating families within these necessarily broad descriptions have been developed and refined (Chauhan, 2007).

The identification of a fundamental perspective or attitude for the entire plant kingdom was somewhat more challenging. Although Sankaran (2005) identified that all plants were characterised by ‘sensitivity’ – a responsiveness to environmental triggers, and a capacity to modify their being in terms of those triggers – he was unable to define a single descriptor for the entire kingdom. He later elaborated a model in which all patients requiring a remedy from the plant kingdom displayed a general sensitivity, a creativity, an emotional vulnerability, and expressed themselves in somewhat imprecise and emotive language, but that each botanical family was identifiable by a fundamental sensation – expressed in the types of pain and sensations of pain experienced – and a characteristic reaction to that pain sensation. In this way, *Compositae* family may be understood to share the sensation of being hurt or injured, *Loganiaceae* family a shared sensation of shock, and *Anacardiaceae* family a sensation of restriction with a need to escape (Sankaran, 2002). The identification of the specific plant member of the respective family is based upon an elaborated system of ‘miasms’.

The concept of miasms was originally proposed by Hahnemann in *The Chronic Diseases* of 1811 (Haehl, 2003). He described a miasm as a fundamental weakness or ‘pollution’ from which all chronic disease arose. He described three miasms (psora, sycosis and syphilis) and held that chronic disease could only be cured by administration of a homoeopathic remedy corresponding to this underlying and insidious factor (Hahnemann, 2008). Since Hahnemann the understanding of miasms has been re-evaluated, redefined and extended (Fraser, 2002; Ross, 2007). In Sankaran’s model, he uses a scheme of ten miasms, and defines each in terms of a particular mode of reaction e.g. the sycotic miasm is manifest in reactions which are
suggestive of shame and a desire to hide the truth. The specific botanical remedy is found at the point of intersection of fundamental sensation (family differentiation) and fundamental mode of reaction (miasmatic differentiation) (Sankaran, 2002; Sankaran, 2005).

2.4.5.3 Mappa Mundi

*Mappa Mundi* (‘The Map of the World’) has its roots in Greek philosophy and humoral theory. The pre-Socratic Greek philosopher, Empedocles (c.490 – 430 BCE) is the originator of the cosmogenic theory which held that the structure of the world, and all that is in it, arose from the four fundamental elements of fire, air, water and earth, and the proportions and balance between each. His philosophy was extended by Plato (429 – 347 BCE) and Aristotle (384 – 322 BCE), and added to by Hippocrates (c.470 – c.360 CE), who incorporated into this elemental understanding a subdivision based upon the four ‘humours’.

Hippocrates’ doctrine held that in addition to the four classical elements, health and disease, and indeed human temperament, were dependent upon the balance of four bodily fluids (‘humours’), namely blood, bile, black bile and phlegm. A predominance of one of these humours gave rise in turn to the four ‘basic’ human temperaments, being sanguine (predominantly blood), choleric (predominantly bile), melancholic (predominantly black bile) and phlegmatic (predominantly phlegm). Each of the humours was understood to draw on the elemental properties of two classical elements e.g. the choleric humour combines the elemental properties and forces of fire and earth, whereas the phlegmatic combines air and water. This eightfold understanding gave rise, in the middle ages, to various *mappae mundi* and formed the basis of alchemical thinking and Greco-Persian medicine (Norland, 2003; Norland, 2007). The map also links well to Jungian archetypal psychology, which was influenced *inter alia* by Jung’s detailed study of alchemy.
The first person to adapt this map for use in the analysis and presentation of homoeopathic materia medica (as ‘the circle’) was the Israeli homoeopath, Joseph Reeves, who in turn influenced modern British homoeopaths such as Sherr and Norland to extend his thinking (Niles and Bedayn, 1994; Norland, 2007). Sherr, in his teaching, retains reference to ‘the circle’ (Niles and Bedayn, 1994), whereas Norland has adopted the Latin term, *mappa mundi* (Norland, 2003).

The homoeopathic *Mappa Mundi*, as described by Norland (2003; 2007), represents health as being a free flow of energy within the circle, and disease as a limitation of movement along one to three of the four axes (fire-air, earth-water, choleric-phlegmatic or sanguine-melancholic). Each axis represents a continuum between opposite and complementary forces or properties e.g. the fire-air axis represents *inter alia* life and death, creativity and destruction, midday and midnight, and the choleric-phlegmatic axis represents assertion and yielding, adult and child, summer and winter [see Appendix S].

The method of analysis, and the insights it provides, are useful because the model is non-linear (in that there is no ‘cause and effect’) and allows for both the materia medica data, and a patient’s disease manifestation to be viewed in terms of predominant limitation/s of flow, and the dynamic, character and pathology (in the broadest sense of the word) associated with that limitation. The prescription of the ‘similar’ remedy is consequently not merely based upon a linear point-for-point symptom correspondence, but on a concomitant similarity of underlying dynamic, a correspondence of systemic disturbance, manifesting in symptomatology of a particular nature, location and sensitivity.
2.4.6 HOMOEOPATHIC PROVINGS OF INDIGENOUS AFRICAN SUBSTANCES

The traditional homoeopathic materia medica is focused around European, and to a lesser extent American and Asian, plant and animal substances, and includes only six remedies indigenous to Southern Africa. These include two species of *buchu* (*Barosma crenata* and *Diosma linearus*) (Vermeulen, 1994), *Plectranthus fruticosus* (Allen, 2000), *Monsonia ovata* (Boericke, 2008) and *Clothus (Bitis) arietans* (Clarke, 1994).

Arising, to some measure, from the Paracelsian notion that the medicines of a people are to be found in the immediate geographical location (Sigerist, 1941), and from within a groundswell of interest in the exploration and documentation of traditional medicines and medical practices, members of the homoeopathic community in South Africa have embarked on a focused and evolving exploration of the therapeutic potential of both indigenous plant and animal substances through formal homoeopathic provings. Over the same period there has been a systematic refinement of the proving methodology itself, in view of practical and ethical imperatives and considerations. These provings have all been conducted at the Durban University of Technology (DUT).

Over a 12-year period, 34 student researchers have conducted 20 blinded, placebo-controlled homoeopathic provings, of which 16 are indigenous South African plant and animal substances, including a number of snake venoms, a naturalised bird, a sea animal, a mountain fungus and a number of indigenous plants.
In my own methodological review of the provings conducted at DUT between 1998 and 2008 (16 provings, of which 13 were provings of indigenous African substances) (Ross, 2009) I found a consistent application of a number of methodological elements relating to ethical management of provers, remedy preparation, security of the blinding process, and accountability and presentation of proving data. I also found that, although the predominant thrust of homoeopathic provings conducted at DUT showed a notable consistency, there were a number of changes which had been effected over the decade of review. There had been notable experimentation with the number of provers, the percentage allocated to placebo groups, the number of researchers supervising provings, and a trend towards including pre- and
post-proving workshops. There was also some evolution over the same period in the University’s understanding, support and ethical approval of provings as post-graduate research.

The methodology as currently employed in DUT provings (or as recommended from my methodological review) may be summarised as follows:

2.4.6.1 The General Methodology

- The proving substance is prepared under laminar flow by Methods 6 (*Triturations by hand*) and a modification of Method 8a (*Liquid preparations made from triturations*), as specified in the German Homoeopathic Pharmacopoeia (GHP);
- Verum/placebo powders are prepared according to the method described below, and six or nine powders each of the respective test substance (verum or placebo) are randomly assigned by an independent clinician to 15 – 20 verum provers and a 20 percent placebo group;
- Each researcher conducts interviews in which prospective provers are screened for suitability, and checked against the inclusion criteria;
- The provers attend a pre-proving training course, conducted by the principal researcher, during which the procedure of homoeopathic proving is explained to them;
- The provers are guided through an *Instructions to Provers* document and sign a *Consent form*;
- Each prover is allocated a prover code, and is provided with a personal copy of the *Instructions to Provers* document, an appropriately numbered journal, and a list of contact numbers for the researcher/s;
- At scheduled times, a thorough case history and physical examination of each prover is completed by the researcher;
- The provers commence recording their symptoms at least three times daily for one week prior to taking the proving substance. Provers commence recording in a staggered manner with groups of two provers per researcher commencing at three-day intervals;
- On completion of the pre-proving week, the prover commences taking the powders a maximum of three times daily for two days, or until the first symptoms appear, whereupon no further doses of the proving substance will be taken. The prover continues to record their symptoms throughout. The researcher is in daily telephonic contact with each prover;
- Telephonic contact frequency is daily initially, reducing to every two to three days, then weekly after the first week (*i.e. days 1, 2, 4, 7, 14, 21, 28 etc.*);
- If no symptoms have been noted after the sixth powder, the prover ceases to take any further doses, but continues to record as previously;
- The proving is considered complete when there has been no occurrence of symptoms for two weeks;
- The respective journal is recalled, and a post-proving case history and physical examination is conducted on the prover;
- After submission of all journals a group discussion around the proving experience is conducted;
- The verum/placebo assignment is unblinded to the researchers, to allow for distinction between verum and placebo groups;
- Extraction and collation of journal data is effected manually;
- Data is presented in traditional Materia Medica and Repertory formats.
2.4.6.2 The Proving Substance

- The 30\textsuperscript{th} Hahnemannian potency (30CH) is utilised for the proving;
- Both placebo and verum are prepared as standard size 10 lactose granules, triple-impregnated at one percent volume/volume with the remedy in 96 percent ethanol [\textit{verum}] or unprocessed 96 percent ethanol [\textit{placebo}];
- Placebo and verum powders are prepared by adding twenty (20) of the respective impregnated granules to standard pure lactose powders;
- An independent clinician numbers respective placebo/verum packets according to a secret random schema, which will be stored by a third party until unblinding.

2.4.6.3 The Prover Group

- The proving is conducted on healthy subjects between the ages of 18 and 60 years;
- Although recruitment of provers is conducted on a purely voluntary basis, cognisance is taken of the need for balanced distribution of male/female ratios, and a reasonable spread of provers across the age range;
- The verum/placebo distribution ratio is 4:1 (80\% verum/20\% placebo) according to the independent random allocation. Provers will be aware of the presence and likelihood of receiving placebo, but details of specific allocation will be known only to the independent clinician until all data has been collected;
- The allocation of provers to either group is made by an independent third party. The record of the schema is stored by this third party until all data has been collected and unblinding is required for differentiation of respective sets of data;
Once all provers have completed their respective provings (and handed in their journals), the randomisation is unblinded and all verum provers meet with the researcher for a group discussion of symptomatology experienced.

### 2.4.6.4 Symptom Collection, Extraction and Evaluation

Each recorded symptom is analysed and evaluated against defined criteria for inclusion. Symptoms included as valid proving symptoms are then collated and formatted according to conventional materia medica and repertory formats.

### 2.4.6.5 Collating and Editing

- Valid proving symptoms are recorded *verbatim* in the materia medica format adopted in standard modern homoeopathic texts;
- Similar symptoms from individual provers are sorted into subgroups, and subgroups are combined within broader groupings according to the standard repertorial classification. In the case of Mind and Dream symptomatology, these are grouped according to themes, within the broader grouping;
- The allocation of journal entries to particular chapters is according to predominant theme, so as to ensure maximal clarity of remedy image and reduce superfluous duplication of entries in more than one chapter;
- Proving symptomatology (as reflected in materia medica) is further translated into repertorial rubric entries according to the same hierarchical format adopted in the compilation of materia medica;
- Rubrics are recorded according to the standard rubric – sub-rubric – sub-sub-rubric convention adopted in standard repertories such as Synthesis;
Rubrics are graded at the lowest grade, unless particularly striking or experienced in a marked degree by a number of provers.

The methodology, as described, is wholly compliant with all the recommendations contained within the European Committee for Homeopathy’s *Homeopathic Drug Proving Guidelines* (European Committee for Homeopathy, 2004).

### 2.5 STRYCHNOS HENNINGSII

#### 2.5.1 THE SCIENTIFIC CLASSIFICATION AND DESCRIPTION

**2.5.1.1 Classification** (Ratnisingham and Hebert, 2007)

*Kingdom:* Plantae  
*Phylum:* Magnoliophyta  
*Class:* Magnoliopsida  
*Order:* Gentianales  
*Family:* Loganiaceae  
*Genus:* *Strychnos*  
*Species:* *henningsii*

**Common Names:** Red bitterberry, Natal teak, Coffee hard pear (*English*); Rooibitterbessie, Koffie hardepeper (*Afrikaans*); Umqalothe, Umdunye (*isiZulu*); Umkalothi, Umnonono (*isiXhosa*) (Orwa, Mutua, Kindt, Jamnadass and Simons, 2009; van Wyk *et al.*, 2009).
2.5.1.2 The Geographical Distribution and Botanical Description

*Strychnos henningsii* (named in honour of Professor Paul Christoph Henning (1841 – 1908), a mycologist at the Royal Botanic Gardens, Berlin-Dahlem) is a broadly distributed plant endemic to the east coast of South Africa, extending from the coastal regions of the Eastern Cape province northwards through the greater part of KwaZulu-Natal into the Kruger National Park (van Wyk *et al.*, 2009). The plant’s endemic distribution continues northwards into sub-Saharan Africa to include Swaziland, Mozambique, Uganda, Tanzania and Kenya and Ethiopia in the east, and Angola and the Democratic Republic of the Congo in the west. The plant is also found on the island of Madagascar (de Ruijter, 2008).

![Figure 4: South African Distribution of Strychnos henningsii](image)

*Figure 4: South African Distribution of Strychnos henningsii*  
(van Wyk *et al.*, 2009: 278)

*Strychnos henningsii* is one of approximately 75 species of *Strychnos* found in Africa (de Ruijter, 2008), and commonly occurs in open forests, wooded hillsides, evergreen thickets, coastal forests and on the banks of streams. It
grows at altitudes between 340 and 2 000 metres above sea level (Orwa et al., 2009).

The plant is very variable in size, from a large shrub to a tall tree of up to 20 metres in height, with a spreading rounded crown (de Ruijter, 2008). The bark is pale grey and smooth in young trees, but becomes a darker brown, and more rough and somewhat flaky in more mature specimens (van Wyk et al., 2009). Branchlets are typically pale to medium brown or yellowish, and are conspicuously grooved and smooth (Orwa et al., 2009).

Figure 5: Plant Parts of *Strychnos henningsii*  
(Clockwise from top left: berries, leaves, flowers and stem bark)
The leaves are bright green and glossy, with three main veins arising from the base (a characteristic of most *Strychnos* species) (van Wyk et al., 2009). They are simple and entire, in opposite alignment, with an elliptical to oblong (or ovate) blade of 2.5 - 6.5 centimetres by 0.8 - 4.5 centimetres (Orwa et al., 2009). The base of the leaf is wedge-shaped to rounded, and the apex is either rounded or narrowing towards a point (de Ruijter, 2008).

Fragrant small yellow (or cream) flowers are produced along the branches in spring and early summer, followed by the production of bright orange or red glossy fruit of approximately 15 millimetre diameter (van Wyk et al., 2009). The fruit contains a single smooth ellipsoid seed of approximately six millimetre diameter by ten millimetre length, with a deep closed groove at one side (like a coffee bean) (de Ruijter, 2008).

2.5.2 THE CHEMISTRY OF *STRYCHNOS HENNINGSII*

As one of the most studied *Strychnos* species from the African continent (Massiot, Thepenier, Jacquier, Henin, Le Men-Olivier and Delaude, 1991), the phytochemistry of *Strychnos henningsii* is well documented in the literature. The earliest research into the plant's alkaloids is cited as being that of Bosley in 1951 (Massiot et al., 1991) which related to the identification of the presence and structure of reticuline ($\text{C}_{19}\text{H}_{23}\text{NO}_4$) and retuline class alkaloids within bark samples. Subsequent studies have identified other alkaloids such as holstiine, rindline and holstiline (Bisset, Bosly, Das and Spiteller, 1975) and the 17 new alkaloids identified by Massiot et al. (1991) in their attempt to secure an authentic sample of henningsoline. At the time of completion of the Massiot et al. study, 39 alkaloids had been identified (including their 17). In their discussion, Massiot et al. comment on the tremendous variability of identified alkaloids within samples growing in different parts of Africa, and suggest that this may be due to variability of the species.
The *Strychnos* genus of plants is noted for the presence of strychnine \((\text{C}_{21}\text{H}_{22}\text{N}_{2}\text{O}_{2})\), and a wide range of structurally related indole alkaloids (van Wyk *et al.*, 2009). These include indole alkaloids of the tsilamine (e.g. henningsiine, holstiine, holsiline and rindline), spermostrychnine, diaboline and retuline classes (de Ruijter, 2008). In addition to the variability between geographically diverse specimens of *Strychnos henningsii*, as mentioned above, there is also some variability in the identification of specific alkaloids within different parts of plants of a single geographical location. In the Massiot *et al.* analysis (1991) of leaves and stem- and root bark samples, four alkaloids (of 17) were identified in stem bark, three of these (holstiine, splendoline and 23-hydroxypermostrychnine) and retuline were identified in root bark, and fourteen alkaloids in the leaves (including the first isolation of henningsiine), of which only two were common to stem- and root bark (splendoline and 23-hydroxyspermostrychnine). The majority (twelve) of these leaf alkaloids were structurally related to henningsiine \((\text{C}_{21}\text{H}_{24}\text{N}_{2}\text{O}_{4})\), henningsamide \((\text{C}_{21}\text{H}_{22}\text{N}_{2}\text{O}_{4})\) or spermostrychnine \((\text{C}_{21}\text{H}_{26}\text{N}_{2}\text{O}_{2})\).

Although the pharmacological effects of *Strychnos henningsii* are attributed largely to the presence of strychnine and/or strychnine-related compounds (de Ruijter, 2008; van Wyk *et al.*, 2009), the bark has also been demonstrated (in aqueous extract) to contain high levels of phenols (48mg/g tannic acid equivalent) and proanthocyanidins (8.7mg/g catechin equivalent) and lower levels of flavonids and flavonoids (Oyedeemi, Bradley and Afolayan, 2010), which may account for certain of its documented therapeutic effects [see 2.5.3.1 below].
2.5.3 THE DOCUMENTED TRADITION OF USE OF *STRYCHNOS HENNINGSII* IN SUB-SAHARAN AFRICA

2.5.3.1 The Medicinal Tradition of Use

As a plant endemic to large areas of sub-Saharan Africa, and as one of the most important of the more than 700 actively traded medicinal plants in South Africa (Keirungi and Fabricius, 2005), *Strychnos henningsii* enjoys a varied medicinal use by South African traditional healers, as well as by the traditional healers of the countries to the north to which the plant is endemic.

In South Africa *Strychnos henningsii* enjoys a reputation as a bitter tonic, and is extensively used in the treatment of abdominal pains and colic (Hutchings *et al.*, 1996). A cold water extract of small amounts of the pulverised bark is usual for these purposes, but boiling or chewing of root bark is also common (van Wyk *et al.*, 2009). The plant is said to be purgative, and South African healers have been documented as using pulverised bark (in cold water extract) for the treatment of nausea and to induce vomiting, as well as using decoctions of the stem bark as an anthelmintic in children (Hutchings *et al.*, 1996). This use as an anthelmintic is also documented in Tanzania, where freshly pounded roots are used in the treatment of hookworm (de Ruijter, 2008). The bark has been used to stimulate appetite (Ogeto and Maitai, 1983) and, more recently, has been described in the treatment of diabetes mellitus (Oyedemi, Bradley and Afolayan, 2009).

The bark of *Strychnos henningsii* is also commonly used in the treatment of dysmenorrhea (Hutchings *et al.*, 1996), and other gynaecological complaints, particularly the lower back pain associated with pelvic inflammatory disease (Njoroge and Bussmann, 2009). In addition the bark has been used in the treatment of rheumatic pains of a more general nature. In South Africa, a decoction of stem bark is used in the treatment of backache (often combined with the roots of *Turraea floribunda*) (Hutchings *et al.*...
al., 1996), whereas in Kenya the preferred mode of administration is as a soup prepared from *Strychnos henningsii* branches (de Ruijter, 2008). The plant has also been used in the treatment of syphilis (Orwa et al., 2009) and has been identified as the third most commonly utilised plant in the treatment of sexually transmitted diseases and management of reproductive health in Central Province, Kenya (Njoroge and Bussmann, 2009).

*Strychnos henningsii* is also used as a snakebite remedy throughout Southern Africa: in South Africa extracts of stem bark are used, and occasionally unripe fruits (van Wyk et al., 2009), whereas in Tanzania and Kenya preference is afforded to the chewing of fresh roots as a snakebite treatment (de Ruijter, 2008). The efficacy of *Strychnos* species in the treatment of snakebite is understood to relate to the presence of strychnine and/or closely-related compounds in the bark and unripe fruits (van Wyk et al., 2009).

Although *Strychnos henningsii* has not been documented as being used by South African traditional healers in the treatment of malaria, the stem bark decoctions have been extensively used in the treatment of malaria in Kenya (de Ruijter, 2008). In a survey amongst the Kikuyu of Central Province, Kenya (Njoroge and Bussmann, 2006), *Strychnos henningsii* (known colloquially as ‘muteta’) was the second most frequently cited plant (of a total of 58 plants) in the management of malaria. It was one of only three plants utilised in all five districts of the province. The scientific investigation of the use of *Strychnos* species in the treatment of malaria is discussed further under section 2.5.4.1 below.

### 2.5.3.2 The Non-Medicinal Uses

In addition to its medicinal uses, *Strychnos henningsii* is valued for its timber. The wood is brown to dark grey and is heavy and known for its strength, durability and resistance to termites (Orwa et al., 2009). The strength of the
wood makes it ideal for walking sticks and tool handles (Orwa et al., 2009) and, in Kenya, the wood is also used to make arrow shafts and poles for building huts and cattle enclosures (de Ruijter, 2008).

2.5.4 THE BOTANICAL RELATIONSHIPS

2.5.4.1 The Scientific Investigation of *Strychnos* Alkaloids

As described in 2.2.2 above, ethnopharmacology is a very interesting resource in which new therapies may be discovered. In the case of malaria, two major anti-malarial drugs widely used today originally came from indigenous medical systems *viz.* quinine, arising from Peruvian indigenous use, and artemisin, of Chinese traditional origin (Soh and Benoit-Vical, 2007). In light of an urgent need for the discovery of new drugs for the effective treatment of malaria, particularly in Africa, there has been some scientific investigation of alkaloids derived from various *Strychnos* species, including *Strychnos henningsii*, for activity against various *Plasmodium falciparum* strains (Frédérich, Hayette, Tits, De Mol and Angenot, 1999; Philippe, Angenot, Mol, Goffin, Hayette, Tits and Frédérich, 2005).

In a study by Frédérich *et al.* (1999), 46 alkaloids and ethanolic and/or ethyl acetate extracts from 13 species of *Strychnos* (including leaves and root bark of *Strychnos henningsii*) were evaluated for in vitro activity against both chloroquine-sensitive and chloroquine-resistant strains of *Plasmodium falciparum*. They found strychnopentamine and isostrychnopentamine (both isolated from *S. usambarensis*) to be active against both chloroquine-sensitive and -resistant strains, and dihydrousambarensine to be significantly more active against the -resistant strain than the chloroquine-sensitive strain. The alkaloids from *Strychnos henningsii* (holstiine, diaboline, strychnochromine and guianensine) showed only mild anti-plasmodial activity against the strains tested.
In a later study by Phillipe et al. (2005) in which ethyl acetate extracts (and for the most active species methanolic extracts) from 19 species of *Strychnos* were assessed *in vitro* against a chloroquine-susceptible strain of *Plasmodium falciparum*, the researchers found extracts from *Strychnos variabilis* to be promisingly active (IC$_{50}$ < 5µg/ml), and suggested that *S. gossweileri* and *S. mellodora* may be worthy of further antimalarial investigation (IC$_{50}$ < 15µg/ml).

In a review of the phytochemistry of African *Strychnos* species and the biological activities of some species (as well as some individual alkaloids isolated from them), the reviewers (Ohiri, Verpoorte and Svendsen, 1983) concluded that although the 48 pharmacological studies reviewed showed muscle-relaxant and/or convulsant properties to be generally present, some of the species and/or alkaloids demonstrated antimicrobial, cytotoxic and hypotensive properties among others. This is supported by subsequent studies which confirmed the analgesic, anti-inflammatory and antispasmodic effects of retuline-like compounds (specifically in *Strychnos henningsii*) (Tits, Damas, Quetin-Leclercq and Angenot, 1991) and the *in vivo* and *in vitro* antioxidant activity of aqueous extracts of *Strychnos henningsii* described previously [see 2.5.2] (Oyedemi et al., 2010).

The most characteristic *Strychnos* alkaloid, strychnine, was first isolated from *Strychnos nux vomica, Strychnos ignatii* and *Strychnos colubrine* in 1818 by Pierre-Joseph Pelletier and Joseph-Bienaimé Caventou. At the time it was named *vauqueline*, in honour of Nicholas Vauquelin, but this was changed in 1819 to the name, strychnine, in reference to the genus of the three plant species from which the alkaloid was isolated. At the time a motivation was made by Magendie for the recently-isolated alkaloid to be named *tetanine*, in alignment with the contemporaneously-isolated alkaloids, *emetine* and *morphine*, named in reference to their most marked physiological effect, but this was rejected by Pelletier and Caventou (Simon, 1999).
Strychnine is a clear, crystalline, odourless, and very toxic (LD$_{50}$ = 16mg/kg in mice and 1-2mg/kg *(oral dose)* in humans) alkaloid. It has a characteristically very bitter taste, and has been used predominantly as a pesticide for use against rodents, moles and predatory animals (Edmunds, Sheehan and Van't Hoff, 1986). The use of strychnine (and its salts) in pesticides is decreasing and accidental poisoning is rare (Dittrich, Bayer and Wanke, 1984).

In humans, the effects of ingestion of strychnine are characterised by hyperexcitability of the central nervous system, resulting in severe and violent convulsions. Strychnine is rapidly absorbed via the gastrointestinal tract, or nasal mucosa, and clinical effects are usually observable within 15 to 30 minutes of exposure (Lambert, Byrick and Hammeke, 1981). A prodromal syndrome that includes tonic twitching of the face and neck muscles, cramping of the leg muscles, restlessness, apprehension and hyperacuity of perception (hearing, vision and tactile sensation) and hyperreflexia may precede the onset of convulsions (Dittrich *et al.*, 1984).

The convulsions begin suddenly after any minor sensory stimulus and last from 50 seconds to two minutes. Initially these are clonic, but are soon followed by tonic contractions similar to those of tetanus (including trismus, risus sardonicus and opisthotonus). The convulsions may occur frequently, with intermittent periods of post-ictal depression. The patient remains fully conscious and lucid throughout and has considerable pain due to muscular spasm (which includes spasm of the thoracic and abdominal muscles). In fatal cases, death is as a result of asphyxia due to respiratory arrest during or between convulsive episodes (Dittrich *et al.*, 1984).

Systemic clinical effects include hyperthermia, lactic acidosis and rhabdomyolysis (due to seizures and muscle spasms) (Boyd, Brennan, Deng, Rochester and Spyker, 1983); tachycardia, hypertension, and a poorly-detected pulse; reflex increase in gastric secretion, and vomiting; ocular
bulging, nystagmus and pupillary dilation; hypokalaemia, dehydration and increased thirst; and cold perspiration during the convulsive remissions (International Programme on Chemical Safety). An increase in white blood cell count (leukocytosis) and elevations of serum glutamate oxaloacetate transaminase, creatine phosphokinase and lactate dehydrogenase were reported in a non-fatal case of strychnine poisoning (Nishiyama and Nagase, 1995).

The effects of strychnine and many of its analogues (Jensen, Gharagozloo, Birdsall and Zlotos, 2006) are understood to arise from their actions as glycine antagonists at the ligand-gated ion channels of post-synaptic motor neurons of the ventral horn of the spinal cord (Bagust, Green and Kerkut, 1981; Kehne, Gallager and Davis, 1981; Burn, Tomson, Seviour and Dale, 1989; O'Neill and Bolger, 1990).

2.5.4.2 The Loganiaceae Botanical Family in Homoeopathy

A number of members of the Loganiaceae botanical family are currently utilised as homoeopathic remedies. The homoeopathic literature makes reference to eleven clearly identifiable Loganiaceae remedies (including strychnine and brucine nitrate), although the quality and nature of the original proving (or other form of experimentation) of each remedy, the identification and specification of the source material, and the identity of the original experimenter are not always clear (Archibel S.A., 2002).

Of the eleven remedies [see Table 2 below], four have extensive materia medica reflected in over 3 000 repertory entries, three are somewhat less well described with less than 1 000 repertory entries, and four are very poorly described with as few as seven repertory entries against the last of these (Archibel S.A., 2003). The most extensively proved and most accurately described remedies are also the most commonly utilised in homoeopathic
practice *viz.* *Nux vomica*, *Ignatia amara*, *Spigelia anthelmia* and *Gelsemium sempervirens* (Sankaran, 2002).

<table>
<thead>
<tr>
<th>Remedy Name</th>
<th>Botanical Name Common Name</th>
<th>No. of Rubrics</th>
<th>First literary account, year</th>
<th>Part used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nux vomica</td>
<td><em>Strychnos nux vomica</em> Poison Nut</td>
<td>11 031</td>
<td>Hahnemann, 1830</td>
<td>Seed</td>
</tr>
<tr>
<td>Ignatia amara</td>
<td><em>Strychnos ignatii</em> St. Ignatius’ Bean</td>
<td>5 988</td>
<td>Hahnemann, 1833</td>
<td>Seed</td>
</tr>
<tr>
<td>Spigelia anthelmia</td>
<td><em>Spigelia anthelmia</em> West Indian Pinkroot</td>
<td>4 753</td>
<td>Hahnemann, 1826</td>
<td>Whole plant</td>
</tr>
<tr>
<td>Gelsemium sempervirens</td>
<td><em>Gelsemium sempervirens</em> Yellow Jasmine</td>
<td>3 166</td>
<td>Henry, 1852</td>
<td>Root bark</td>
</tr>
<tr>
<td>Strychninum</td>
<td>Strychnine</td>
<td>884</td>
<td>Andral, 1823</td>
<td>Alkaloid</td>
</tr>
<tr>
<td>Curare woorari</td>
<td><em>Strychnos toxifera</em> Curare</td>
<td>596</td>
<td>Wesselhoeft, 1885</td>
<td>Unclear</td>
</tr>
<tr>
<td>Upas tieuté</td>
<td><em>Strychnos tieute</em> Upas Tree</td>
<td>206</td>
<td>Pittet, unknown</td>
<td>Roots &amp; bark</td>
</tr>
<tr>
<td>Brucea antidysenterica</td>
<td><em>Strychnos nux vomica</em> Poison Nut</td>
<td>61</td>
<td>Hering, unknown</td>
<td>Bark</td>
</tr>
<tr>
<td>Hoang nan</td>
<td><em>Strychnos gaultheriana</em> Tonquin</td>
<td>29</td>
<td>Unknown, 1883</td>
<td>Bark</td>
</tr>
<tr>
<td>Spigelia marilandica</td>
<td><em>Spigelia marilandica</em> Caroline Pinkroot</td>
<td>19</td>
<td>Unknown</td>
<td>Root</td>
</tr>
<tr>
<td>Brucinum</td>
<td>Brucine nitrate</td>
<td>7</td>
<td>Lepelletier, 1851</td>
<td>Salt</td>
</tr>
</tbody>
</table>

Table 2: The Loganiaceae Plants (and Alkaloids) in Documented Homoeopathic Use (Archibel S.A., 2002; Archibel S.A., 2003)

In his group analysis of remedies of the Loganiaceae family, Sankaran (2002) describes the remedies of this family to be centred around a main sensation of being *shocked, shattered* or of *being torn to pieces*. Physical pains would typically be described by using these adjectives [e.g. shattered pains as if torn to pieces (*Ignatia*); head feels as if it were torn, on coughing or moving (*Curare*); Shocks like electricity on going to sleep (*Ignatia, Strychnine*); pains tearing asunder (*Ignatia, Nux vomica and Spigelia*)], whilst the mental symptomatology may be expressed as shock, disappointment, and/or ailments from shock, grief, mortification or bad news.
The individual's response to this sensation is either to become paralysed, unable to move or unable to express emotion (the ‘passive’ reaction) or to become hypersensitive, excitable and even to convulse (the ‘active’ reaction). The individual who is able to compensate fully for this fundamental sensation of ‘being shattered and torn to pieces’ is able to remain composed and calm in the midst of even severe shock and disappointment (Sankaran, 2002).

2.6 THE SYNTHESIS

2.6.1 PARADIGMATIC CONFLICT

In the review of the literature, I have highlighted the epistemological and ontological characteristics of the rationalist-scientific, the traditional African and the homoeopathic paradigms. The rationalist-scientific paradigm is characterised by a reductionist approach that seeks to understand and explain complex ‘wholes’ through the systematic understanding of ever-increasingly small ‘parts’ (Andersen, 2001). This philosophical paradigm places critical importance on objectivity, rationality, and an evidence-based epistemology (Kurtz, 2000). The view of medicinal plants is based upon a model that sees body and mind as distinct ontological entities, and understands the effects of plant medicines on human beings, who are understood to be sophisticated biological ‘machines’ (Barrañón, 2009), in terms of the action of real and measurable chemical entities on defined cellular components and structures (Lipton, 2005).

In contrast, the indigenous African world view reflects a holistic paradigm which is subjective, inclusive, and dynamic (Ataudo, 1985; Omonzejele, 2008). There are no ontological ‘splits’ between body and mind, material and immaterial, the living and the dead (Setiloane, 1986; Dugmore and van Wyk, 2008), and the human being and his ‘dis-ease’ are understood in terms of the
community, a position within a divine order, and a dynamic interplay of internal and external physical and spiritual forces (Ngubane, 1977; Setiloane, 1986; Ellis, 1999). The indigenous epistemology emphasises experience, ancestral knowledge and the social order (Setiloane, 1986; Ellis, 1999). Within this paradigm medicinal plants are viewed as agents of healing that are integral to the natural order, and are understood in terms of their nature, their metaphorical relationship to the internal and external world of the patient (Dugmore and van Wyk, 2008), and as a component of a system of healing that strives not only to overcome a specific ailment, but to restore order within the patient and his community (Ataudo, 1985; Ellis, 1999).

The homoeopathic paradigm is similarly holistic, in that it fundamentally views the human being as an integrated and dynamic system (Vithoulkas, 1986). Within the homeopathic philosophy, however, illness is viewed not merely as an indicator of internal discord, but as a self-healing attempt which needs to be supported and made more efficient, rather than to be opposed by an antagonistic medicinal force (Eizayaga, 1991; Hahnemann, 1996; de Schepper, 1999). Within this paradigm of thought the human being is viewed as a complex and elaborate ‘puzzle’ the nature of which is described by the extent and character of a ‘totality’ of symptomatology reflected at all levels of being (Eizayaga, 1991; Swayne, 2005). Within this paradigm, there is also no ontological distinction between body and mind, material and immaterial, nor linear conceptualisation of disease processes (Chauhan, 2007).

Notwithstanding the fundamentally holistic, integrated and inclusive nature of its epistemology, the homoeopathic paradigm, in many respects, draws on the rationalist ideals of experiment and the strength of reason (Hahnemann, 1996). This is most evident in the evolution and refinement of proving methodology, as a rational mode of scientific investigation (Dantas, 1996; Walach et al., 2004). In contrast to the ‘scientific method’, which makes the ontological distinction between ‘subject’ and ‘object’ and focuses upon the objective (Kurtz, 2000; Andersen, 2001), the homoeopathic mode of
investigation, however, prioritises the subjective experience and bases the core of its understanding of medicinal effects (whether these medicines are of plant, mineral animal or other origin) on highly differentiated and subtle subjective data derived from healthy human subjects (Dantas et al., 2007).

In his explanation of the emerging scientific field of epigenetics, Lipton (2005) has compared the reductionist biological view, which he presents as being linear and modelled on a ‘mechanistic’ understanding of physics as described by Newton, to the holistic complex web of ‘crosstalk, feedback and feedforward communication loops’ described within a quantum physical model (Lipton, 2005: 72). He contends that the more recent laws of quantum mechanics do not negate the results of classical physics. However, quantum mechanics does apply more specifically to the molecular and atomic realms, whilst Newtonian laws are more applicable to higher levels of organisation such as organ systems, people or populations. He argues that since the disease processes that ultimately manifest at organ level find their origins at the molecular and ionic level, there is a need for a biology that integrates both Newtonian and quantum mechanics.

![Information Flow Diagram]

**Figure 6: A Visual Representation of Information Flow within Newtonian and Quantum Paradigms** (Lipton, 2005: 73)
Lipton is not alone in his re-evaluation of the reductionist paradigm: Barrañón (2009) and Andersen (2001) both argue that the limitations of reductionism in the biological sciences, and particularly the field of medicine, are becoming increasingly evident. In particular, Andersen (2001) draws attention to evident difficulties with respect to Nagel’s ‘concept of derivability’, which holds that the laws of a secondary science must be derivable from the primary science on which it is based. Reductionist biomedicine (a quaternary science based upon the sciences, in turn, of biology and chemistry) continues to base its laws on a Newtonian conception of physics, despite the incorporation of the quantum mechanical model into the primary science of physics. The emergence of complexity science may also be seen as a ‘reaction’ to a growing frustration of the reductionist scientific paradigm to explain complex phenomena (Mikulecky, 2001).

In recent years the rationalist scientific emphasis on ‘objectivity’, the persistence of the dualist view of an object studied by a subject who has no influence on the object under study, despite evidence of experimental subject-object influence and ‘morphic resonance’ and other confounding phenomena (Sheldrake, 1998), and the representation of research findings in the conventional ‘third-person passive’ voice have been brought into question. Sheldrake (2004) argues that, although the passive voice is still favoured by many eminent scientists, experiments ‘do not mysteriously unfold in front of impersonal observers’ (Sheldrake, 2004: 8). He argues that if people conduct scientific experiments then to portray the activity as human does not diminish the science, it merely ‘shows it as it is’. He further notes that the use of the passive voice in scientific writing did not find favour until the 19th century, and that many modern journals, including Nature, encourage use of the active voice.

The re-evaluation of the prevailing scientific paradigm and the critical evaluation of competing paradigms of thought are widespread (Resch and Gutmann, 1991; Fisher, 1995; Andersen, 2001; Mikulecky, 2001; Hyland and
Lewith, 2002; Castellani, 2003; Walach et al., 2005; Dantas et al., 2007). As Mutwa has expressed in the quotation cited in the introduction to this chapter (1996: 203), the ‘confrontation’ of different paradigms is not without its fear-based reactions. The much-publicised Lancet article by Shang et al. (2005), and the response by various members of the homoeopathic community (Jobst, 2005; Fisher, 2006; Lüdtke and Rutten, 2008), is but one example of the intensity that such paradigmatic conflicts can achieve.

2.6.2 THE ARGUMENT IN FAVOUR OF THE STUDY

The bark of *Strychnos henningsii* is currently used within the traditional African medicinal paradigm (Hutchings et al., 1996; van Wyk et al., 2009). To Zulu traditional healers it is *umqalothi*, a medicine having certain properties and virtues within the Zulu conceptualisation and worldview (Mutwa, 1996; Dugmore and van Wyk, 2008). It is applied in particular contexts that have been passed down through generations of izinyanga and izangoma, and valued for its role within the medicinal armamentarium.

The plant, *Strychnos henningsii* has also been the subject of rationalist-scientific investigation. Within this paradigm of investigation, it has been accurately described in terms of its botany (Orwa et al., 2009), and viewed principally as a source of anti-malarial phytochemicals, along with other species of the same genus (Ohiri et al., 1983; Massiot et al., 1991; Philippe et al., 2005). Its documented tradition of use has also prompted some investigation of antioxidant properties (Oyedemi et al., 2010) and effectiveness as an appetite-stimulant (Ogeto and Maitai, 1983). The understanding of *Strychnos henningsii* as a medicine is defined by the pharmacology and toxicology of its identified constituent chemicals, which appear to be predominantly strychnine-like indole alkaloids (Massiot et al., 1991).
The application of *Strychnos henningsii* bark as a homoeopathic remedy is dependent on the prior ‘proving’ of micro-doses on healthy human subjects (Dantas *et al.*, 2007). The sum total of the clearly attributable effects induced in healthy subjects constitutes the foundational materia medica of *Strychnos henningsii* and represents the homoeopathic understanding of the therapeutic scope of the medicine, prior to clinical confirmation and elaboration through use (Hahnemann, 1996).

The bark is, therefore, able to be viewed through three lenses, and understood from the perspective of three varying epistemologies, ontologies and axiologies. *Strychnos henningsii* exists as a botanically defined phytomedicine (which I shall indicate by the conventional taxonomy, *Strychnos henningsii*), as a traditionally-conceptualised and -utilised Zulu medicine, *umqalothi* (which I shall indicate through the use of the isiZulu nomenclature, *umqalothi*), and as a homoeopathic remedy (which I shall indicate by the normal font bold botanical name, *Strychnos henningsii*).

Whilst some attributes of *umqalothi* have been described in terms of the scientific understanding of *Strychnos henningsii* (van Wyk *et al.*, 2009; Oyedemi *et al.*, 2010), the understanding of *umqalothi* (as it is held within the oralate Zulu community of healers) is poorly described in the literature and, in the absence of a homoeopathic proving, the scope of application of *Strychnos henningsii* is unknown.

In this study I sought to define *Strychnos henningsii* as a homoeopathic medicine through a methodology that had a number of features that promoted objectivity in the procurement and handling of data and sought to evaluate the strength and consistency of the methodology itself (as a representation of the homoeopathic understanding of the medicinal plant, *Strychnos henningsii*). Thereafter I compared the data derived from the homoeopathic proving to existing data of *Strychnos henningsii* and specific phytochemical analysis of the bark sample used in preparation of *Strychnos*
henningsii (as a representation of the rationalist-scientific understanding of the plant). Both these sets of data were then compared to data derived from the documented tradition of use of umqalothi, and qualitative data derived from field interviews of eight Zulu traditional healers living and working in the province of KwaZulu-Natal.

Based upon my work as a homoeopathic doctor, my study of homoeopathic materia medica and previous experience of homoeopathic proving methodology and my exposure to TAM, I proposed that the understanding derived from the homoeopathic proving of Strychnos henningsii would be internally consistent, would serve as a ‘bridge’ between the epistemologies and understandings of Strychnos henningsii and umqalothi, and would stimulate evaluation and re-evaluation of our preconceptions and understandings of health, disease and the concept of holism.
3.1 THE OVERVIEW OF THE STUDY

This study sought to explore the relationships between the understanding of the medicinal plant, *Strychnos henningsii* derived from a triple-blind placebo-controlled homoeopathic proving of an ultra-molecular dose [theoretically $1:10^{60}$] of *Strychnos henningsii* bark, the understanding and utilisation of the medicinal plant by traditional healers living and working in the province of KwaZulu-Natal, South Africa, and the understanding of the bark as medicine which can rationally be derived from the phytochemical analysis of a bark sample.

The study consisted of four discrete phases, each of which is described in detail under the relevant heading below. In summary these four phases included:

1. A homoeopathic proving, which was conducted by four Masters in Technology: Homoeopathy (M.Tech.Hom) students who were blind to the nature and potency of the proving substance until all data had been processed and materia medica and repertory data sets had been finalised (Cámpora, 1999). The homoeopathic proving, uniquely, included an ‘objective’ arm which included pathological blood testing of full blood count, erythrocyte sedimentation rate, platelet count and modified liver function at baseline and at three points within the proving. The data from these tests were recorded by me without reference to the parallel subjective data (which were recorded by the student researchers), and analysed by an independent biostatistician;

2. Phytochemical analysis of a portion of the same bark sample used for preparation of the homoeopathic potency, for the objective
verification of the presence of strychnine and other indole alkaloids to which pharmacological action has been attributed (van Wyk et al., 2009). This was independently conducted by a technician of the Medical Research Council (MRC) in Cape Town, under the guidance of a chemist from the South African Herbal Science and Medicine Institute (SAHSMI) of the University of the Western Cape (UWC);

3. Field interviews of four traditional herbalists and four diviners conducted by an isiZulu mother-tongue M.Tech.Hom student and me in four regions of KwaZulu-Natal. These interviews were intended to explore relevant research questions related to the traditional understanding and use of umqalothi (Strychnos henningsii), and were subsequently transcribed, translated, and independently verified by a language practitioner/translator; and

4. Exploration of the relationships between various data sets through qualitative and quantitative analysis of proving, phytochemical, interview, and other homoeopathic data, using N.Vivo® 9 and Radar® 9.0 software packages and other literary sources.

### 3.1.1 REVIEW AND ETHICAL APPROVAL

The research proposal was reviewed by the homoeopathic Departmental Research Committee, the Faculty of Health Sciences Ethics Committee, and the Durban University of Technology Institutional Research Committee.

Ethical approval of the research study, including the homoeopathic proving (on healthy human subjects) and the field interview of traditional healers was granted by the Faculty of Health Sciences Research Ethics Committee on 21 April 2009. The Ethics Reference Number is FHSEC 011/09 [Appendix A].
3.1.2 THE UNDERPINNING PRINCIPLES OF THE STUDY

Throughout the planning and implementation of this study the underpinning ethical and design principles were that:

1. all aspects of the design should seek to maximise objectivity and minimise subjectivity;
2. wherever possible the potential for bias should be eliminated, and as far as possible the data and results of data should be independently derived and verified;
3. all participation should be entirely voluntary, and at no point should any force or coercion be used;
4. the integrity of all participants should be respected and protected at all times; and that
5. except where essential to maintaining the integrity of the research experiment, there should be an open and inclusive research attitude.

3.2 THE HOMOEOPATHIC PROVING

3.2.1 THE DESIGN

The homoeopathic drug proving of *Strychnos henningsii 30CH* took the form of a mixed-method triple-blind, placebo-controlled study. Thirty-two provers were recruited by advertisement and word of mouth, selected against defined inclusion criteria (*see 3.2.2.2 below*) and fifty percent of the subjects (16 of the 32) received placebo in a random manner. The 32 provers were randomly divided into four equal groups of eight provers, with each group supervised by one of four M.Tech.Hom student researchers.
The provers and the four M.Tech.Hom research students were not aware of the name or nature of the substance being proved, the potency of the proving substance, nor whether a prover had been assigned the proving substance or a placebo (Nagpaul, 1987; Sherr, 1994; European Committee for Homeopathy, 2004). I was aware of the proving substance and its potency, but was unaware of the details of verum/placebo assignment of provers to researchers. Randomisation was conducted by an independent clinician who was unaware of the proving substance (European Committee for Homeopathy, 2004; Ross, 2009).

As an additional ‘internal’ control, all provers were required to record their state for one week prior to commencing the verum/placebo powders (Vithoulkas, 1986; Sherr, 1994). All provers recorded their symptoms in assigned journals in the manner described (see 3.2.2.4.1 below). Such recording was completed at least once daily. Data extracted from journals was combined with case histories, physical examinations and the results of blood tests to compile the proving profile.

Data derived from journals and case histories were edited and collated as set out in section 3.2.3 below. Objective measures derived from blood tests were subjected to statistical manipulation with reference to pre-proving baselines and changes induced during the first 24 days of the proving.

Proving symptomatology (derived from journals, case histories and post-proving group discussion) was reformatted and classified according to standard materia medica and repertory conventions.

3.2.2 THE OUTLINE OF THE PROVING METHODOLOGY

- The proving was conducted by four M.Tech.Hom. students, under my supervision;
• The proving substance (bark of *Strychnos henningsii*, in the 30CH potency) was prepared by the laboratory technician of the Department of Homoeopathy, Durban University of Technology, according to Methods 6 (*Triturations by hand*) and a modification of Method 8a (*Liquid preparations made from triturations*), as specified in the German Homoeopathic Pharmacopoeia (GHP) (Benyunes, 2005: 36-39) [Appendix B];

• Verum/placebo powders were prepared according to the method described below [see 3.2.2.1.2], and nine powders each of the respective test substance (verum or placebo) were randomly assigned by an independent clinician to 32 prover numbers (16 verum and 16 placebo);

• Thirty-two prover volunteers were recruited by advertisement [Appendix C] and word of mouth from homoeopathic practitioners, homoeopathic students and patients, and the general public;

• Each student researcher conducted interviews in which prospective provers were screened for suitability, and checked against the inclusion criteria [Appendix D];

• The provers attended a pre-proving training course, conducted by me, and in the presence of the M.Tech.Hom student researchers, during which the procedure of homoeopathic proving was explained to them;

• The provers were guided through the *Instructions to Provers* document [Appendix G] and signed the *Consent form* [Appendix E] (Wright, 1999);

• Each prover was allocated a prover code, and was provided with a personal copy of the *Instructions to Provers* document, an appropriately numbered journal and a list of contact numbers for the researchers;

• The provers were divided randomly into four equal groups, with each student researcher being responsible for eight provers;
- At scheduled times, a thorough case history and physical examination \([\text{Appendix F(i)}]\) of each prover was completed by the respective student researcher;
- The provers commenced recording their symptoms at least three times daily for one week prior to taking the proving substance. Provers commenced recording in a staggered manner with groups of two provers per researcher commencing at three-day intervals (i.e. commencement of recording is staggered over a ten-day period \((\text{viz. } days\ one, four, seven, \text{ and ten})\) \(\text{(Ross, 2009)}\);
- On day three of the respective pre-proving week, the prover presented to the pathology laboratory for completion of Full Blood Count (FBC), Platelet, Erythrocyte Sedimentation Rate (ESR), and modified Liver function (LFT) testing;
- On completion of the pre-proving week, the prover commenced taking the powders a maximum of three times daily for three days (a maximum of nine doses), or until the first symptoms appeared, whereupon no further doses of the proving substance were taken. The prover continued to record their symptoms throughout. The researcher was in daily telephonic contact with each prover;
- Telephonic contact frequency was daily initially, reducing to two to three times daily, then weekly after the first week \((i.e.\ days\ one, two, four, seven, fourteen, 21, 28 \text{ etc.})\);
- If no symptoms had been noted after the ninth powder, the prover ceased to take any further doses, but continued to record as previously \(\text{(Sherr, 1994; Ross, 2009)}\);
- Each prover presented to the pathology laboratory for completion of FBC, Platelet, ESR and modified LFT testing on the third, tenth and 24th day of their respective proving;
CHAPTER THREE: The Materials and Methods

Table 3:  Tabular Representation of Proving Schema

- The proving was considered complete when there had been no occurrence of symptoms for two weeks;
- Journaling continued for a post-proving observation period of one week, to ensure no recurrence of proving symptoms (Sherr, 1994);
- The respective journal was recalled, and a post-proving case history and physical examination conducted on the prover [Appendix F(ii)];
- After submission of all journals a group discussion around the proving experience was conducted;
- The verum/placebo assignment was unblinded to the student researchers, to allow for distinction between verum and placebo groups;
- Extraction and collation of journal data was effected manually; and results of pathological testing was subjected to statistical analysis [see 3.2.4.2 below];
- Data was presented in traditional Materia Medica and Repertory formats. At this point the identity and potency of the proving substance was revealed to the student researchers.
3.2.2.1 The Proving Substance

The substance used for the preparation of the homoeopathic potency for use in the triple-blind placebo-controlled homoeopathic proving, and for the phytochemical analysis described in 3.3.1 below, was a fresh sample of *Strychnos henningsii* bark, stripped by an experienced traditional herbalist, Dr Mzonjane Sithole, from a mature tree growing in a natural forest in uMkhomazi, KwaZulu-Natal. The single sample of bark was harvested in the early morning of 25 January 2009, wrapped in newspaper whilst being transported, and allowed to dry in a stable, dark, and air-conditioned environment prior to use.

![Sample of Strychnos henningsii bark](image)

*Figure 7: The Sample of Strychnos henningsii Bark used for both the Preparation of the Proving Substance and the Phytochemical Analysis*

3.2.2.1.1 Potency

The 30\(^{th}\) Hahnemannian potency of the fresh bark of *Strychnos henningsii* (*Strychnos henningsii 30CH*) was utilised in this homoeopathic proving.
3.2.2.1.2 Preparation and Dispensing of the Proving Substance

- The proving substance (bark of *Strychnos henningsii*) was prepared by the laboratory technician of the Department of Homoeopathy according to Methods 6 (*Trituration of insoluble substances*) and a modification of Method 8a (*Liquid potency from trituration*), as specified in the German Homoeopathic Pharmacopoeia (GHP), First Supplement Edition (Benyunes, 2005) [Appendix B]. Method 6 was utilised in the preparation of the first three potencies due to the fibrous nature of the bark sample, and to ensure potentisation of all bark components, and not merely those able to be extracted through ethanol maceration (Method 4a) [*UniLAB® chemically pure Lactose monohydrate BP (loss on drying + water max 6%) Lot 1033011; Illovo Limited Anhydrous alcohol 99.9% UN No 1170 Batch 046/10/68*];

- A 20ml volume of the 30th Hahnemannian centesimal potency (30CH) was produced in 96% ethanol;

- A 60ml volume of standard size 10 lactose granules was triple-impregnated (to facilitate maximum coverage and penetration of the impregnating liquid) at one percent volume/volume (1% v/v) with *Strychnos henningsii 30CH* (96% ethanol) [verum] [Method 10 of GHP (Benyunes, 2005)];

- A 60 ml volume of standard size 10 lactose granules was likewise triple-impregnated at one percent volume/volume (1% v/v) with unprocessed 96% ethanol [placebo]. The decision to use unprocessed ethanol as opposed to potentised ethanol was based upon the prevailing chemical basis of the pharmacological paradigm. Within this paradigm the possible effect of succussion is neither acknowledged nor defined (Walach *et al.*, 2005);

- Placebo and verum powders were prepared by adding twenty (20) of the respective impregnated granules to standard pure lactose
powders [144 (+27) verum and 144 (+27) placebo powders divided into packets of 9 powders each (16+3 verum; 16+3 placebo)];

- An independent clinician numbered 32 respective placebo/verum packets according to his secret random schema, which was stored by him until unblinding;
- An additional three sets each of verum and placebo powders were held in reserve, to be administered to provers who may have been required to replace provers who withdrew from the study prematurely [see 3.2.2.2.3 below].

3.2.2.1.3  Dose and Posology

- The provers took one lactose-based verum/placebo powder sublingually for a maximum of three times daily for three days, or until the first symptoms appeared (whichever occurred sooner);
- The prover ceased to take the powders as soon as they, or the researcher noted the onset of proving symptoms (Sherr, 1994);
- There was no repetition of the dose after the onset of symptoms;
- The proving substance was taken on an empty stomach and with a clear mouth. Neither food nor drink was taken for a half-hour before or after administration of the proving substance;
- The dosage and posology were clearly explained to each prover in the pre-proving training course, and was presented in writing in the Instructions to Provers document [Appendix G], a copy of which was provided to each prover for reference and safekeeping at home.
3.2.2.2 The Prover Group

3.2.2.2.1 Sample Size and Demographics

The proving was conducted on 32 healthy subjects. The number of provers was determined as a compromise between international recommendations for proving sample size (Sherr, 1994; Walach, 1997; International Council for Classical Homoeopathy, 1999), and a minimum sample size (15 in each group) for statistical interpretation of blood results (Esterhuysen, 2009a).

In keeping with international recommendations the prover sample consisted of a fair mix of individuals thoroughly acquainted with homoeopathic principles, as well as those with no homoeopathic background (European Committee for Homeopathy, 2004).

Provers were recruited by advertisement [Appendix C] and word of mouth from amongst practising homoeopaths, homoeopathic and chiropractic students of the Durban University of Technology, as well as patients who had previously presented to the Homoeopathic Day Clinic (DUT), and their relatives and friends. Although recruitment of provers was conducted on a purely voluntary basis, cognisance was taken of the need for a representative male to female ratio, and a reasonable spread of provers across the age range (18 – 60 years).

The verum/placebo distribution ratio was 16/16 (50% verum/50% placebo) according to an independent random allocation. Provers were aware of the presence and likelihood of receiving placebo, but details of the specific allocation were known only to the independent clinician until all data had been collected and processed.
3.2.2.2 Criteria for the Inclusion of a Subject

The prover subject:

- was between 18 and 60 years of age;
- had obtained parental consent if he/she is between 18 and 21 years old [Appendix E];
- was in a general state of good health with no gross physical or mental pathology determined by the case history or physical examination (Sherr, 1994; Walach, 1994; Riley, 1997; International Council for Classical Homoeopathy, 1999);
- was in no need of medical treatment; conventional, homoeopathic or other (Riley, 1997);
- had not used the oral contraceptive pill or hormone replacement therapy within the preceding six months (Sherr, 1994; Riley, 1997; International Council for Classical Homoeopathy, 1999);
- was not pregnant or breastfeeding (Sherr, 1994; Riley, 1997; International Council for Classical Homoeopathy, 1999);
- did not use recreational drugs (Sherr, 1994; Walach, 1994; International Council for Classical Homoeopathy, 1999);
- had not had surgery in the preceding six weeks;
- did not consume more than two measures of alcohol per day, 10 cigarettes per day, nor three cups of coffee or tea per day;
- was able to follow the proper procedures (including case history, physical examination and blood tests) for the duration of the proving; and
- was competent and had signed the Consent Form (Riley, 1997) [Appendix E].
3.2.2.3 Randomisation

Fifty percent of provers (16 provers) were randomly assigned to the placebo group. The remaining fifty percent (16 provers) constituted the verum group.

The allocation of provers to either group was effected by an independent clinician. Allocation of prover numbers to either group was according to the random sequence of withdrawal of 32 folded slips of paper from a shaken box. Sixteen slips bore the letter ‘V’ and sixteen the letter ‘P’ denoting the respective group.

Thirty-two packets of powders (16 verum/16 placebo), corresponding to prover numbers 1 – 32 were numbered according to the resultant schema [see 3.2.2.1.2 above]. The schema was divided into four equal parts such that prover numbers 1 – 8, 9 – 16, 17 – 24 and 25 – 32 were assigned to respective M.Tech.Hom research students in a ‘luck of the draw’ manner. The record of the schema was stored by the independent clinician until all data had been collected, and unblinding was required for differentiation of respective sets of data.

An additional three sets each of verum and placebo powders were held in reserve (unallocated), to be administered to provers who may have been required to replace provers who withdrew from the study prematurely. In such cases the ‘replacing’ prover was to be assigned to the same group, and to assume the ‘b’ version of the same prover number, as the ‘withdrawing’ prover [e.g. withdrawing prover 25 (verum) would be replaced with new prover 25b (verum); prover 8 (placebo) with prover 8b (placebo)]. The appropriate set of powders would be labelled as such (by the independent clinician) at the time of dispensing.
3.2.2.2.4  Lifestyle of Provers during the Proving

The provers were advised to:

- avoid antidoting factors such as camphor and menthol, and to cease their use for two weeks prior to administration of the proving powders (Sherr, 1994);
- practice moderation with respect to work, alcohol, smoking, exercise, diet and sexual expression (Sherr, 1994; Hahnemann, 1996);
- maintain their usual habits (Sherr, 1994);
- store the proving powders in a cool, dark place away from strong-smelling substances, electrical equipment and cellular telephones (Sherr, 1994);
- avoid any medication (including antibiotics), vitamin and mineral supplements, herbal or homoeopathic remedies (Sherr, 1994); and to
- consult their doctor, dentist or hospital in the event of a medical emergency, and to contact their supervisor as soon as possible thereafter (Sherr, 1994).

3.2.2.2.5  Monitoring of Provers

The prover and their respective researcher were in daily telephonic contact for the beginning of the proving (days one and two), with contact frequency decreasing across the first week (days four and seven) to become weekly contact (days 14, 21, 28 etc.) for the duration of the proving (Sherr, 1994).

The purpose of these contacts was to:

i) ascertain when the proving substance began to act, so that the prover could be instructed to cease taking any further doses;
ii) ensure that the prover recorded accurately, and did not neglect to record a symptom; and to

iii) ensure the safety of the prover by closely monitoring for any reaction which may need to be antidoted (by an existing homoeopathic remedy, or another necessary intervention).

Provers were given a ‘courtesy’ telephonic reminder to ensure their presentation for pathological testing on their respective days (according to their commencement date).

3.2.2.3 The Case-history, Physical Examination and Pathological Testing

3.2.2.3.1 Case-history

Each prover who complied with the Inclusion criteria [Appendix D], had attended the pre-proving training workshop [see 3.2.2.4.1], and read, understood and signed both the Consent form and the Instructions to Provers documents [Appendices E and G respectively] had a scheduled 90-minute appointment with the assigned student researcher for completion of a standard homoeopathic case history and general physical examination [Appendix F(i)].

The purpose of the case-history was to ascertain and clarify the baseline status of each prover prior to administration of the proving substance.

3.2.2.3.2 Physical Examination

The general physical examination [Appendix F(i)] included physical description, assessment of vital signs, cursory overview and system specific examination (as relevant to the case-history).
3.2.2.3.3  Pathological Testing

Provers were required to submit to laboratory analysis of blood on four occasions during the course of the experiment:

**Test 1:** on day 3 of the pre-proving observation week *(baseline)*
**Test 2:** on day 3 of the proving
**Test 3:** on day 10 of the proving
**Test 4:** on day 24 of the proving

All blood samples were drawn and analysed by phlebotomists and technicians employed by the Ampath group of pathology laboratories according to standard protocols of phlebotomy and medical technology respectively.

The tests included for analysis were a full blood count with platelets and eosinophil sedimentation rate (FBC/Platelets/ESR), and a modified liver function test (modified LFT). The specific items for inclusion were:

- Erythrocyte sedimentation rate (ESR)
- Haemoglobin (Hb)
- Red cell count (RCC)
- Haematocrit (HCT)
- Mean corpuscular volume (MCV)
- Mean corpuscular haemoglobin (MCH)
- Mean corpuscular haemoglobin concentration (MCHC)
- Red blood cell distribution width (RDW)
- Platelets
- Leucocyte count
- Neutrophils (% and count)
- Lymphocytes (% and count)
• Monocytes (% and count)
• Eosinophils (% and count)
• Basophils (% and count)
• Total protein
• Albumin
• Globulin
• Total bilirubin
• Conjugated bilirubin
• Unconjugated bilirubin
• Alkaline phosphatase
• $\gamma$-Glutamyl transferase (Gamma GT)
• Alanine aminotransferase (ALT)
• Aspartate aminotransferase (AST)

3.2.2.4 The Duration of the Proving

3.2.2.4.1 Pre-proving Training Workshop

Prior to commencement of the proving proper, I presented a pre-proving workshop that was attended by all 32 identified provers and the M.Tech.Hom student researchers (as proving supervisors). This workshop was held in advance of the start of pre-proving observation of the first eight provers (according to the scheme described in 3.2.2.4.2 below).

At this workshop, I elaborated the concept of homoeopathic proving, and explained the structure and objectives of the research project, the details of journaling, supervisor contact, and the schedule and purpose of pathological testing [Appendix H]. I then took provers through the Instructions to Provers document [Appendix G], and they were afforded an opportunity to pose questions and seek clarification on any aspect of the process (European Committee for Homeopathy, 2004).
At this time I also provided provers with their respective prover numbers, journals, and blood request forms. The cover of each journal had an affixed schedule [Appendix I] detailing the nature and dates or proving events, as well as the name and contact details of the relevant research supervisor. Each prover was provided with four blood request forms [Appendix J], reflecting their prover number, and the date of presentation for pathological testing hand-written under each respective test (i.e. Test 1 (Baseline); Test 2 (Day 3); Test 3 (Day 10); Test 4 (Day 24)). I provided the proving supervisors with Supervisors’ Logs [Appendix K] which served as a visual representation of the total proving experiment, and detailed proving events, dates, and supervisor actions and responsibilities.

3.2.2.4.2 Pre-proving Observation

Each prover commenced recording his/her symptoms at least three times daily for one week prior to taking the proving substance, as an internal control. This period of mandatory pre-proving observation was staggered in such a manner that only two provers per researcher commenced his/her recording on any particular day. Pairs of provers commenced their pre-proving observation at three-day intervals to allow the supervisor to have predominant focus on each commencing pair of provers in the initial days of their journal recording. This afforded the supervisor the opportunity to ensure that each prover’s journaling was taking place according to the methodology, and that good journaling habits were being established. Commencement of recording was therefore staggered over a ten-day period (viz. days one, four, seven, and ten) (Ross, 2009).

On day three of his/her respective pre-proving week, the prover presented to the pathology laboratory for baseline blood tests [see 3.2.2.3.3 above]
3.2.2.4.3  Commencement of Proving

On completion of the week of pre-proving observation and journaling, each prover commenced taking the powders a maximum of three times daily for three days, or until the first symptoms appeared, whereupon no further doses of the proving substance were taken. If no symptoms were noted after the ninth powder, the prover ceased to take any further doses, but continued to journal as previously.

Individual provers were monitored telephonically by their respective supervisor to confirm the onset of proving symptoms (where these occurred), that the methodology was being implemented correctly, and that the prover’s interests were being protected [see 3.2.2.2.5 above]. Provers journaled at least once daily for the duration of the proving.

Each prover presented to the pathology laboratory for completion of follow-up blood tests on the third, tenth and 24th day of their respective proving.

3.2.2.4.4  Chronology

The prover noted the time elapsed between the commencement of the proving and the appearance of each symptom. This was recorded in the DD:HH:MM format, as proposed by Sherr (1994), where DD are the number of days since commencement of the proving (day one was designated 00), HH are the number of hours, and MM the number of minutes.

The top of each page of the prover’s journal was marked with the appropriate day code. After 24 hours, the minutes become redundant, and were represented by XX. After two days the hours became redundant and were indicated similarly by XX. In instances where the time was insignificant or unclear the symptom was marked XX:XX:XX. The actual time of the day was
included only if it is definite, significant and causal to the symptom. All irrelevant time data were erased in the initial extraction.

3.2.2.4.5 **Post-proving Observation**

The proving was considered complete when there had been no occurrence of proving symptoms for two weeks. Journaling continued for a post-proving observation period of one week, whereupon the respective journal was recalled, and a post-proving case history and physical examination [*Appendix F(iii)*] were conducted on the prover.

The purpose of the post-proving case-history and physical examination is to confirm the return to the pre-proving state, and to confirm the disappearance of any ‘cured symptoms’ [*see 3.2.3.1.1 below*]

Although the duration of the individual prover’s reaction to the proving substance was unable to be predicted, the broad prediction of duration was approximately 73 days as set out below:

- Initiation of pre-proving observation: 10 days
- Pre-proving observation (1 week): 7 days
- Proving period (*approx.* 5 weeks) [*variable*]: 35 days
- Cessation of proving (2 weeks): 14 days
- Post-proving observation (1 week): *7 days*

  *approx.* 73 days

3.2.2.5 **The Group discussion**

Once all provers had completed their respective provings and journal data was recorded and processed [*see 3.2.3.2.1. and 3.2.3.2.2 below*], the randomisation was unblinded (the identity of the proving substance remained
blind), and all verum provers met with the M.Tech.Hom research students for a group discussion of symptomatology experienced.

Sherr (1994) argues that this discussion is an essential component of proving methodology, since the discussion often triggers provers’ memories for symptoms which may have gone unnoticed, or of which the prover was doubtful. The discussion assists in clarifying and validating, or discarding doubtful symptoms.

3.2.3 THE PROCESSING OF THE SUBJECTIVE PROVING DATA

3.2.3.1 The Symptom Collection, Extraction and Evaluation

The most difficult phase of proving development lies in the extraction and collation of symptomatology as recorded in journals and case histories (Sherr, 1994; Riley, 1997). In this study each recorded symptom was analysed and evaluated against the criteria set out in 3.2.3.1.1 below. Symptoms included as valid proving symptoms were then collated and formatted according to conventional materia medica and repertory formats (International Council for Classical Homoeopathy, 1999):

3.2.3.1.1 Criteria for Inclusion of a Symptom as a Proving Symptom

The criteria for inclusion of a symptom as a proving symptom were:

- A new symptom unfamiliar to the prover occurred after taking the remedy (Riley, 1997; International Council for Classical Homoeopathy, 1999).
- The symptom did not appear in a prover in the placebo group.
• A current or usual symptom for the prover intensified to a marked degree (Sherr, 1994; International Council for Classical Homoeopathy, 1999).

• A current symptom was modified or altered, with a clear description of current and modified component (Sherr, 1994; International Council for Classical Homoeopathy, 1999).

• The symptom did not occur in the prover within the last year (a current symptom) (Sherr, 1994; Riley, 1997).

• The symptom did not appear naturally or spontaneously during the proving (Sherr, 1994).

• Any symptom that occurred a long time previously, especially longer than five years previously, but that had not occurred for at least one year and that had no reason to reappear at the time of the proving (Sherr, 1994; Hahnemann, 1996).

• A present symptom that disappeared during the proving. This was marked as a ‘cured symptom’ (Sherr, 1994; Riley, 1997; International Council for Classical Homoeopathy, 1999).

• The frequency of the symptom (Sherr, 1994).

• The intensity of the symptom (Riley, 1997).

• The number of subjects experiencing a symptom. A symptom experienced in more than one subject (Sherr, 1994; Riley, 1997).

• Strange, rare or peculiar symptom for that prover. The knowledge and conviction of the prover that symptoms are foreign to him/her are a reliable and definite consideration (Sherr, 1994).

• The modalities, concomitants, localisations (sides and extension) and timing associated with a symptom (Riley, 1997).

• Accidents and co-incidences that occurred to more than one prover (Hahnemann, 1996).

• If the prover was under the influence of the remedy (as could be seen by a general appearance of symptoms), then all other new symptoms were proving symptoms (Sherr, 1994; Hahnemann, 1996).
• The time of day at which a symptom occurred is only included if there was repetition of such a time in another prover (International Council for Classical Homoeopathy, 1999; European Committee for Homeopathy, 2004).

• A symptom was excluded if it may have been produced by a change in life or other exciting cause (International Council for Classical Homoeopathy, 1999).

### 3.2.3.2 The Collating and Editing

The aim of collation is to synthesise valid proving symptoms from individual provers into a single structured composition (International Council for Classical Homoeopathy, 1999) representing the materia medica. Similar symptoms from individual provers are sorted into subgroups, and subgroups are combined within broader groupings according to the format scheme described in 3.2.3.3.1 below. In the case of Mind and Dream symptomatology, these are grouped according to themes, within the broader grouping. The allocation of journal entries to particular chapters is according to predominant theme, so as to ensure maximal clarity of remedy image and reduce superfluous duplication of entries in more than one chapter.

#### 3.2.3.2.1 Transcription of Journal Data

Once prover journals had been collected, the student researchers transcribed provers’ subjective data *verbatim* into *Microsoft Word*® documents. The researchers were instructed to be faithful to the ‘text as written’ during the transcription from manual to electronic formats: grammar, spelling, case and format were all maintained, without any attempt to ‘correct’ what may have been seen as possible error. At the end of each journal entry the researcher inserted the respective prover number, gender, and symptom chronology [see 3.2.2.4.4], so that this data would not be lost during the processes described in 3.2.3.2.2 and 3.2.3.2.3 below.
A differentiation was also made between journal data in the pre- and post-proving phases of the experiment, and what was understood to be the true proving data, by saving pre- and post-proving text in a different colour (red) to that of the proving (black). Each prover’s journal was saved as a separate file by prover number. Each student researcher was responsible for the transcription of her respective eight provers’ journals.

3.2.3.2.2 Determination of Proving Symptoms in both Groups

The process of determination of proving symptoms in all subjects, was conducted in two phases:

1) All journal entries within a particular journal were categorised under the most appropriate repertorial heading (e.g. an entry describing a headache, was categorised under ‘Head’, a description of itchy eyelids under ‘Eye’, and a particular change of mood or attitude under ‘Mind’), and shuffled under the specific heading. The result of this ‘shuffling’ was a document having standard repertorial headings under which one would find a collection of the respective prover’s symptoms aligned to that heading. This collection would include symptoms in black text (proving symptoms) and symptoms in red (pre-and post-proving).

2) Comparison was made between ‘red’ and ‘black’ journal entries under each repertorial heading. Taking due cognisance of the criteria for inclusion of a symptom above [3.2.3.1.1], a process was applied in which any ‘black’ symptom having a direct ‘red’ equivalent was deleted (along with the equivalent ‘red’ symptom). In this way a reasonable differentiation was able to be made between symptoms ‘of the prover’ and symptoms ‘of the proving experiment’. At this stage the allocation of verum and placebo was unknown, and all prover journals were treated as equivalent.
3.2.3.2.3  Determination of Verum Proving Symptoms

Having determined the symptoms ‘of the proving experiment’ for all provers, a similar process to that described in 3.2.3.2.2 above was followed to determine the symptoms that could reasonably be attributed to the proving substance, as opposed to the ‘experiment’.

The allocation of verum/placebo was unblinded, and all placebo provers’ symptoms (as determined in 3.2.3.2.2) were saved as ‘red’ symptoms, whilst those of verum provers remained ‘black’. Verum symptoms that had a placebo equivalent were deleted along with all placebo symptoms, leaving a collection of symptoms which had been produced under the influence of *Strychnos henningsii 30CH*, and having no equivalent in the placebo group, nor in the verum provers either prior to administration of the substance or once the respective prover had returned to ‘normal’.

3.2.3.2.4  Incorporation of Post-proving Discussion Data

This proving data was discussed with verum provers in a group discussion [see 3.2.2.5] in order to interrogate the authenticity of the data (as derived), and to afford an opportunity for expansion and/or refinement of expression. This discussion took the form of discussion around broad themes, rather than detailed and step-by-step focus, so as to encourage open-ended responses, and minimise false-positive responses from verum provers (Sherr, 1994).

3.2.3.3  The Formatting

The validated proving data as derived by the processes described in 3.2.3.2 above were re-formatted into conventional homoeopathic materia medica and repertorial formats, according to the conventions and processes described below.
### Materia Medica

The following conventional head-to-toe schema was adopted in compiling the materia medica of *Strychnos henningsii*:

| 1)  Mind        | 20) Prostate Gland         |
| 2)  Vertigo     | 21) Urethra                |
| 3)  Head        | 22) Urine                  |
| 4)  Eye         | 23) Male                   |
| 5)  Vision      | 24) Female                 |
| 6)  Ear         | 25) Larynx                 |
| 7)  Hearing     | 26) Respiration             |
| 8)  Nose        | 27) Cough                  |
| 9)  Face        | 28) Expectoration           |
| 10) Mouth       | 29) Chest                  |
| 11) Teeth       | 30) Back                   |
| 12) Throat      | 31) Extremities             |
| 13) External Throat | 32) Sleep                |
| 14) Stomach     | 33) Dreams                 |
| 15) Abdomen     | 34) Chill                  |
| 16) Rectum      | 35) Fever                  |
| 17) Stool       | 36) Perspiration            |
| 18) Bladder     | 37) Skin                   |
| 19) Kidney      | 38) Generalities           |

Where no symptoms were recorded under a particular heading, the heading was omitted from the final compiled materia medica. Throughout the compilation and formatting of the materia medica the emphasis was on clarity of presentation, grouping of similar symptoms, and emphasis of evident consistency and commonality. Symptoms recorded under the headings of Mind, Head, Dreams and Generalities were arranged by theme (*Mind and...*)
3.2.3.3.2 Repertory

Each materia medica entry was subsequently translated to repertorial equivalents (rubrics). The conventional rubric – sub-rubric – sub-sub-rubric format and structure as adopted in Radar® 9.0 was utilised for this process, and the translation was effected according to this methodology:

1. Equivalent rubrics for each materia medica entry were sought using either the Radar® 9.0 software programme, or its print equivalent, Synthesis 10.0, and these were recorded under the respective materia medica entry. Rubrics were not restricted to those of the ‘equivalent’ section of the repertory (i.e. a headache may be described under the heading of ‘Head’ in the materia medica, but due to its having concomitant nausea and photophobia, its repertorial ‘equivalent’ would contain rubrics from the ‘Head’ (the headache per se, in terms of location, sensation and extension), ‘Eye’ (the concomitant photophobia) and ‘Stomach’ (the concomitant nausea) sections of the repertory)

2. Once all entries were converted into equivalent rubrics, the respective sets of rubrics were ‘coloured’ according to the prover producing the particular entry (and rubrics). Once all rubrics were appropriately coloured (16 colours in total), all rubrics were separated from their associated materia medica text, and pooled into a single composite (and erratically dispersed, in terms of repertorial sections) document.

3. This composite list of rubrics was then electronically alphabetised, and, in so doing, both rubrics duplicated in a single prover, and those produced by multiple provers were evidenced by either uniformity of colour, or multiple differences of colour respectively.
4. All rubrics were then graded according to the number of provers producing a particular rubric. In the absence of clinical verification this grading should be viewed as ‘suggestive’ and not absolute:

- All rubrics are ordinarily assumed to be of lowest grade [conventionally referred to as ‘Grade one’ and reflected in normal type];
- any rubrics produced by three or more different provers were elevated to ‘Grade two’ [conventionally reflected in *italics*]; and
- any rubrics produced by eight or more different provers were elevated to ‘Grade three’ [conventionally reflected in **bold** type]

Without clinical verification, no rubrics were considered for allocation to the highest grade ['Grade four', reflected as **BOLD CAPITALS**]

The graded rubrics thus derived and graded were reformatted and sequenced according to the non-alphabetic *Radar® 9.0* time of day – localisation – sensation – extension convention.

### 3.2.4 THE PROCESSING OF THE OBJECTIVE PROVING DATA

Objective proving data were derived from the laboratory values of the various blood measures described above [see 3.2.2.3.3] recorded as baseline values for each prover at day three of the pre-proving observation period, and at three points within the proving (days three, ten and 24).

#### 3.2.4.1 The Recording of Blood Values

Laboratory values provided to me in hard copied A5 print (against prover number) by the laboratory research trial co-ordinator were entered into *Microsoft Excel®* spreadsheets. At the time of the initial recording of objective data, I was unaware of randomisation and verum/placebo allocation and values were entered against an undifferentiated list of 32 prover numbers.
Once all data had been captured, the verum/placebo allocation was unblinded, and differentiated verum and placebo tables were compiled [Appendix N]. These tables were provided to an independent biostatistician, for subsequent analysis.

3.2.4.2 The Statistical Analysis of Blood Values

Objective data derived from pathological blood testing and clinical measures (30 variables) were subjected to Repeated-measures ANOVA testing to assess the effect of the verum prover compared to the placebo over time. This multivariate procedure tests three hypotheses simultaneously:

1. the time effect (irrespective of treatment group);
2. the group effect (irrespective of time); and
3. the time x group interaction effect, which is the effect of the treatment group over time.

An overall time x group effect was examined as well as time x group effects using simple contrasts between each time point and baseline, and repeated contrasts for point 3 versus point 2. The time x group interaction effect was considered as the treatment effect. A p-value <0.05 was considered to be statistically significant, and represents a significant treatment effect (Esterhuysen, 2009b).

Profile plots were used to visually assess both the direction and trends of the effects. Statistical analysis and processing was conducted using the Statistical Package for Social Sciences® (SPSS), version 15. The results of these analyses are presented as Appendix O.
3.3 THE PHYTOCHEMICAL ANALYSIS

3.3.1 THE METHODOLOGY OF PHYTOCHEMICAL ANALYSIS

Phytochemical analysis of a portion of the same sample of *Strychnos henningsii* bark utilised for preparation of the proving substance was conducted by technicians of the Medical Research Council (MRC), based in Delft, Western Cape. The crude bark sample was transported by air between Durban and Cape Town, and delivered by hand in a labelled amber-glass container. Storage of the sample between receipt and analysis was under standard laboratory storage conditions.

3.3.1.1 The Method of Preparation of the Sample

- The bark material was ground into a fine powder with a ball mill;
- A 1.000g of the resultant powder was macerated in 100ml of a mixture of methanol, water, and concentrated hydrochloric acid (50:50:1) for 24 hours;
- The plant debris was separated from the extracted solution by centrifugation;
- The supernatant was evaporated to dryness; and
- The residue so obtained was reconstituted in methanol and filtered through a 0.45µm filtration membrane (Mabusela, 2010a).

3.3.1.2 The Phytochemical Analysis

Phytochemical analysis of the prepared sample as described above was conducted using an Agilent® 1200 series High Performance Liquid Chromatography-Mass Spectrometry (HPLC-MS) system, coupled to an Agilent® 6530 Accurate-Mass Quadrupole Time of Flight (Q-TOF) Liquid Chromatography-Mass Spectrometry (LC-MS) spectrometer.
The sample was drawn into a Phenomenex® Kinetix™ PFP 100Å 2.10 x 150 mm x 2.6 µm column.

The operational conditions were as follows:

- Column temperature = 30ºC
- Flow rate = 0.25 ml/min
- Injection volume = 1 µl.
- Mobile phase A = 90% H₂O and 10% Acetonitrile [0.1% formic acid]
- Mobile phase B = 90% Acetonitrile and 10% H₂O [0.1% formic acid].
- The running time was 30 minutes.

On the basis of the literature reviewed, a total of 17 alkaloids to the exclusion of strychnine were identified in material collected in Tanzania (Massiot et al., 1991). The molecular weights (MW) of these alkaloids were calculated, and together with that of strychnine, were used as probes (in both the positive and negative modes) to determine the presence, or otherwise, of structures corresponding to such MW’s in the sample under investigation (Mabusela, 2010a).

3.3.1.3 The Recording and Display of Derived Data

The derived data were recorded as Microsoft Excel® spreadsheets, and displayed as a combination of tables (reflecting compounds and spectra peak lists) and MS Spectra. The data are reflected as Qualitative Compound Reports which include a record of mode, sample, acquisition, data analysis method and calibration status [Appendix P].
3.4 THE INTERVIEW OF TRADITIONAL HEALERS

A mother-tongue isiZulu speaking M.Tech.Hom research student and I conducted field interviews of eight traditional healers in four locations within the province of KwaZulu-Natal. The intention of these interviews was to explore and document the scope and depth of understanding amongst two types of traditional healer (izinyanga and izangoma) of Red bitterberry, both as plant (Strychnos henningsii) and as medicine (umqalothi).

The M.Tech.Hom research student conducted the interviews, and I video recorded them. We employed a qualitative semi-structured interview methodology (Miller and Boulton, 2007; Willis et al., 2007), and video-recorded data which were later transcribed by the research student, and collaboratively translated (Pavlovic, 2009). The verified English texts were later subjected to NVivo® 9 qualitative analysis, for internal consistency and comparison to both documented tradition of use and the Strychnos henningsii materia medica derived from the proving [described in section 3.2 above].

3.4.1 THE INTERVIEW METHODOLOGY

In conducting field interviews, I wished to garner a high-quality representative snapshot of the indigenous understanding of the medicinal plant, umqalothi (Strychnos henningsii), as it is understood in the province in which I live and work, and in which the plant is used extensively. Because of the nature of the qualitative methodology employed, and the expanse of the data derived from the implementation of the methodology, it was necessary to limit the number of interviewees to a small yet representative sample, covering the largest expanse of KwaZulu-Natal possible. I elected to interview one notable herbalist (inyanga) and one well-known diviner (isangoma) in each of four
regions within the province. Three of these regions were rural or semi-rural, and one was urban.

3.4.1.1 The Identification of Interview Subjects and Locations

The student researcher identified senior students within the residences of the Durban University of Technology who originated from regions of Northern KwaZulu-Natal, Southern KwaZulu-Natal, and the KwaZulu-Natal interior. These students were requested to identify noted and well-known izinyanga and izangoma within their respective regions, in order to identify the most suitable locations and individuals for interview. In order for these recommendations to be valid, the following conditions were to be met:

1) The student needed to be familiar with traditional medicine, and the traditional medical practices within their respective region;
2) they needed to have been treated by traditional healers within the region themselves;
3) they needed to have consulted with family members residing in the region to confirm the reputation of their proposed healers; and
4) the student researcher needed to be provided with contact details for the particular traditional healer.

From the information provided we decided, in consultation, to conduct interviews in Melmoth (rural Northern KwaZulu-Natal), Harding (semi-rural Southern KwaZulu-Natal), Weenen (rural KwaZulu-Natal interior) and the Warwick Muthi Market (Durban central). In the case of the Warwick Muthi Market we identified traditional healers by canvassing local students (subject to the same conditions described above).

The student researcher contacted proposed healers telephonically and confirmed their availability and willingness to participate and scheduled mutually acceptable appointment dates and times. Appointments were
scheduled in such a manner as to allow for the interviews of the two respective traditional healers in a particular location to be conducted in a single day. The semi-structured interviews (Willis et al., 2007) were conducted in January 2010 (Melmoth), February 2010 (Weenen and Harding) and April 2010 (Durban). The site of interview in all cases was the work place of the respective traditional healer.

3.4.1.2 The Scope of the Interviews

The participation of traditional healers was entirely voluntary. All visits were conducted by a mother-tongue isiZulu-speaking M.Tech.Hom student researcher, who acted as principal communicator and translator, and me, as research supervisor and video recorder. I have a comfortable functional command of isiZulu (as third language) and have worked, in isiZulu, with a traditional herbalist for nearly seven years. The interviews took the form of a semi-structured oral style questionnaire around the understanding and utilisation of umqalothi (*Strychnos henningsii*) with respect to:

1. the scope of use;
2. the modes of administration;
3. the observed therapeutic effects and their explanation;
4. personal considerations in the identification of the need for umqalothi in sick persons;
5. the identification and harvesting of bark or other plant materials;
6. any observed ill effects;
7. the record of knowledge around the utilisation of the plant medicine, and the mode of transmission of such knowledge; and
8. relevant details of training and personal perceptions of their role as a traditional healer.

I believe that the above broadly-articulated questions covered sufficient range as to enable a reasonable account of the indigenous understanding of
the medicinal plant, both in terms of its context within the broader understanding of the traditional healer’s role and objectives in treatment, and the specifics of the plant in terms of identification, harvesting and modes and contexts of use as a therapeutic agent, without being overly pedantic and prescriptive.

The student researcher made the scope of the investigation explicit, and there was no coercion or pressure to reveal ‘trade secrets’. The interview was recorded on digital video for subsequent transcription and recording of gesture and affect, and formal translation (Conolly, 2002).

3.4.1.3 The Interviews

3.4.1.3.1 Context of the Interview

We conducted all interviews in the space in which the traditional healer ordinarily works. All due protocols were observed in introducing the healer, the research student and me to each other, and once all equipment and placing of individuals were in order, video recording proceeded.

At the outset verbal informed consent was sought [see 3.4.1.3.2 below] whereupon we proceeded to garner information and insight into the questions described in 3.4.1.2 above.

Factors which we considered in the approach to the interview, and which we believed would contribute to the quality and authenticity of the exchange, were:

- the interviewer was a South African mother-tongue isiZulu speaker;
- I, as the supervisor and video recorder, was a South African person with a familiar accent and a capacity to communicate in the vernacular;
• both members of the interviewing party were familiar with traditional protocol;
• the interviewer employed the formal and traditional mode of greeting and introduction, which includes subdued vocal tone and respectful terms of address;
• the interviewer utilised hand gestures and adopted postures which are associated with humility and respect, in order to encourage communication and sharing of knowledge;
• the questioning technique employed was similar to that of a homoeopathic consultation in being open-ended, and proceeding according to the logical flow and impulse of the interviewee;
• the video recorder was as silent and non-participatory as possible; and
• we were both smartly dressed.

At no point in the interview was any coercion used, and the traditional healer was free at any point in the interview to either limit what he was to discuss or withdraw completely [see 3.4.1.3.2 below]. At the time of the interviews, the student researcher was blind to the results of the homoeopathic proving of Strychnos henningsii 30CH, and the proposed homoeopathic indications for use arising from that data.

3.4.1.3.2 Informed Consent

Although we had established the respective traditional healer’s agreement and willingness to participate telephonically prior to the visit, it was imperative that a formal informed consent be received. Since the interviews took place in predominantly rural and semi-rural settings where illiteracy levels are high we decided to pursue a video recorded oral informed consent, rather than the usual signed written informed consent (Miller and Boulton, 2007). Additional considerations which we took into account in arriving at this decision were that:
1) within the traditional context agreements are ordinarily oral and not written;
2) most old people in rural and semi-rural areas are functionally illiterate, and view the need to sign a document which they themselves are unable to read with extreme scepticism; and that
3) the association of the interview with elements of South Africa’s ‘colonial’ past would have a negative impact on the progress of the interview and quality of the information.

In seeking informed consent we informed all traditional healers that:

- the interviews were being conducted around the traditional understanding and use of umqalothi (*Strychnos henningsii*);
- the objective of the interview was not to use their information for any reason other than to compare the traditional use, as they would describe, to the already defined homoeopathic application (through the earlier proving);
- the interview would also include questions around their training and perception of traditional medicine;
- their identity would be protected, and the information would not be inappropriately utilised or disseminated;
- they were free to not participate, refuse to answer particular questions, or withdraw at any point;
- the interview was being recorded for transcription purposes and would not be inappropriately broadcast; and that
- the study was being undertaken for research purposes only, and was not associated with any financial objective or personal monetary gain.

The specific presentation of this information to individual healers, and their provision of consent were recorded on video, and are reflected in English in the respective interview texts [*Appendix Q(ii)*].
3.4.1.3.3  Flow of the Interview

In line with semi-structured interview methodology, and in order to encourage free flowing communication, we did not pose the research questions in a fixed sequence (Willis et al., 2007). Having been presented with the scope of the interview, the traditional healer was at liberty to follow his/her own thought process and impulse. The interviewer, respectful of the process, only asked predominantly open ended questions to encourage elaboration of detail, or to gently steer the progress of the interview into necessary areas. The interviewer terminated the interview when all the research questions had been discussed and elaborated upon, or, in one case, when the video recorder battery failed.

3.4.1.3.4  Recording of Interview Data

Pairs of interviews (by location) were recorded in long-play (LP) mode onto 60-minute mini-DVD cassettes using a Sony camcorder. These cassettes were labelled with the location of the interview, and identification of the healers in terms of their respective designation as inyanga or isangoma, gender and age, and were subsequently transferred to four DVD discs (by location).

3.4.2 THE TRANSCRIPTION OF INTERVIEW DATA

3.4.2.1 The Coding of Subjects

For purposes of transcription (and subsequent translation) interview subjects were coded in order to facilitate representation of their words in writing, whilst protecting their identities. The coding utilised reflected the individual’s healer designation, their placement within the sequence of four interview pairs, and the location of the interview. The coding sequence was:
1. Healer designation ($S$ = isangoma; or $N$ = inyanga);
2. Placement within the four pairs of interviews (1,2,3 or 4); and
3. The interview location ($M$ = Melmoth; $W$ = Weenen; $H$ = Harding; or $D$ = Durban)

In addition the written texts reflect the gender of the healer (♀ or ♂) and his/her age in years.

3.4.2.2 The Commitment of Recorded Data to Writing

3.4.2.2.1 Transcription of Spoken Word to Writing

The transcription of oral text to written text was done by the mother-tongue student researcher-interviewer using Windows Media Player®. The transcription was effected in three stages necessitating three complete encounters with the audiovisual text:

1. Transcription of all words uttered (audio focus) with inclusion of full stops, but not necessarily other punctuation marks [first hearing];
2. A checking of crude transcribed text to remove hesitation sounds (the isiZulu equivalents of “Um”), and refine punctuation [second hearing];
3. Paragraphing of written text, indication in the written text of significant gestures or events (video focus), and inclusion of punctuation to indicate nuances of the oral delivery with reference to phrase repetitions, mid sentence corrections etc. [third hearing]

3.4.2.2.2 Incorporation of Gesture and Affect

Where noteworthy gestures or changes of affect were noted these were described and incorporated into the written text (in English). The reason for such incorporation in the initial stages of the process was to ensure that subtle changes in meaning and intention which these gestures and affect
changes indicated were not lost in the subsequent translation process (Conolly, 2002).

3.4.2.3 The Formatting and Presentation of the Written Text

Prior to translation, the entire corpus of isiZulu interview as transcribed was formatted to its final presentation form [Appendix Q(i)]. In this formatting it was important to differentiate words spoken by interviewer and interviewee respectively, and also to indicate any non-isizulu language used, and any gesture and affect which, although critical to the understanding of the written text, are not formally part of the oral text to written text transcription.

3.4.2.3.1 Differentiation of Interviewer and Interviewee

Throughout the written text, the words associated with the Interviewer are so indicated, and presented in italics. The words associated with a particular traditional healer are indicated by the healer’s code [3.4.2.1 above], and presented in normal Arial font.

3.4.2.3.2 Handling of Non-isizulu Language, Gesture and Affect

Within the interviews it was found that English and Afrikaans words and phrases were either used alongside isizulu (either because direct reference was being made to a town, institution or entity, or because expression in that language appeared to be more accessible or less cumbersome), or incorporated into the vernacular in the absence of a ‘traditional’ word or under the cross-cultural influence, and subject to isizulu rules of grammar.

These words or phrases are represented in the written text as normal Arial font in the case of the Interviewer, or in italics in the case of the interviewee. Where an English or Afrikaans word is incorporated into an isizulu word
which is subject to normal grammatical rules, the non-isiZulu segment is incorporated between a pair of hyphens.

Relevant non-verbal elements of gesture and affect are indicated in italics, within square brackets.

### 3.4.3 THE TRANSLATION OF INTERVIEW DATA

A collaborative translation methodology was adopted in the translation of the transcribed isiZulu text. The collaborative translation process consists of two phases: a mother-tongue source text other-tongue target text first translation, and a subsequent other-tongue source text mother-tongue target text translation (Pavlovic, 2009).

#### 3.4.3.1 The Mother-Tongue Source Text Other-Tongue Target Text Translation

#### 3.4.3.1.1 Translator

The mother-tongue source other-tongue target translation is effected by a minimally bilingual individual who speaks the language of the interview as his mother tongue, and the target language as a second- or third language. This individual is assumed to have a complete understanding of the original language and sufficient facility with the target language to be able to render an understandable version of the text in that language, as the first translation phase.

The first translation phase was completed by the student researcher-interviewer, who is a mother-tongue isiZulu speaker and a second-language English speaker.
3.4.3.1.2 **First Translation Phase**

In the initial translation phase the student researcher-interviewer translated individual interviews to the point of rendering an understandable English version of the original text, although in this translation the emphasis was not on subtlety of vocabulary or specificity of tense. As may be anticipated from a second-language English speaker raised within the traditional milieu, this translator was unable to provide precise English equivalents for many traditional terms (Albakry, 2005).

A reasonable draft translation of the isiZulu text into intelligible English was then subjected to a second other-tongue isiZulu mother-tongue English translation effort.

3.4.3.2 **The Other-Tongue Source Text Mother-Tongue Target Text Translation**

3.4.3.2.1 **Translator**

The other-tongue mother-tongue translation is effected by a minimally bilingual individual who speaks the target language as his mother tongue, and the original language of interview as a second- or third language. This individual is assumed to have a complete understanding of the subtlety of the target language and sufficient facility with the original language to be able to ‘re-translate’ the initial mother-tongue other-tongue translation to a finely nuanced version of the text in the target language (Pavlovic, 2009).

3.4.3.2.2 **Sources in Support of Translation**

In support of this translation two isiZulu-English dictionaries (Dent and Nyembezi, 1995; Doke *et al.*, 2008), one isiXhosa-English dictionary (McLaren, 1963), and the assistance of two isiZulu mother-tongue colleagues
were used. Where there were questions related to the isiZulu text, reference was once again made to the original audiovisual data, and changes were made where appropriate.

### 3.4.3.2.3 Second Translation Phase

I undertook the second translation phase. I am a mother-tongue English-, second-language Afrikaans-, and third-language isiXhosa/isiZulu speaker.

In the second translation phase I worked from the original isiZulu text (there is a small amount of isiXhosa in the Harding interviews) and the first English draft, and using the reference sources described in 3.4.3.2.2 above, I ‘re-translated’ the draft to correct errors of tense and refine the vocabulary of expression so as to convey the intention and meaning of the original as accurately as possible.

Whilst I made every effort to adhere as faithfully as possible to the syntax, and mode of expression of the oral rendering in isiZulu, I sometimes found it necessary to include omitted or implied words not articulated by the interviewee for purposes of fluency in English (Newmark, 1991; Halcomb and Davidson, 2006). I have indicated instances of omitted words in normal brackets, and implied words in square brackets in the final English text [Appendix Q(ii)].

### 3.4.3.2.4 Consistency of Translation

In this translation I made every effort to translate ‘traditional’ terms in a consistent manner so as to make associations more obvious to the reader. Where an isiZulu word had a number of subtly differentiated meanings (e.g. the verb, -bona may be translated as see [with the eye], understand [with the intellect], perceive [mentally], recognise, examine, or visit) I selected the most appropriate to the context. Here too, I attempted, as far as was reasonable,
to maintain consistency of a particular translation of a word to a particular context (Newmark, 1991).

### 3.4.3.3 The Formatting and Presentation of the Written Text

As was described in 3.4.2.3 above, the entire body of translated English text was then formatted to its final presentation form [Appendix Q(ii)]. In this formatting, I maintained the differentiation of words spoken by interviewer and interviewee described in 3.4.2.3.1, and indicated non-English language which was unable to be translated in the manner previously described for non-isiZulu language in the transcription. Gesture and affect as indicated in the isiZulu written text was transferred to the English written text without change.

#### 3.4.3.3.1 Consistency of Format

Throughout the written text, the words associated with the Interviewer are so indicated, and presented in italics. The words associated with a particular traditional healer are indicated by the healer’s code [see 3.4.2.1 above], and presented in normal Arial font.

References to plants are indicated in text by their English common names with their respective botanical names included in square brackets, in underlined italics, after the first reference in each interview, and without references to the botanical name in subsequent references (within a single interview).

#### 3.4.3.3.2 Handling of Non-English Text and Foreign Concepts

When translating the vernacular names for medicinal plants and plant foods I made every effort to correctly identify both the English and botanical names for these plants. In the translated text, I refer to the plant or foodstuff by its
English common name, with its most likely botanical name/s in italics within square brackets. Some medicinal plants were evidently referred to in interview by regional vernacular terms and I was unable, after consultation with botanical experts, to accurately identify these botanically (Ngwenya, 2010). In these instances I have retained the original isiZulu term in the English text, in italics.

Where an interviewee made reference to an isiZulu term which was not understood by the interviewer at the time of the interview, and the interviewer asked for explanation or elaboration, the isiZulu term is retained in inverted commas.

Traditional terms and concepts which may be foreign to a naïve reader have been translated into a reasonable English equivalent in text, with reference in a more elaborate footnote derived from Doke et al. (2008).

3.4.4 THE VERIFICATION OF THE DATA

Both the isiZulu transcription and the English translation were submitted to a qualified professional language practitioner and translator for verification, prior to formal qualitative analysis. The language practitioner who verified the text data is a mother-tongue isiZulu speaker and isiZulu-English translator.

3.4.4.1 The Data provided

The language practitioner was provided with the original DVD interviews, separate ring-bound copies of the isiZulu transcript and English translation respectively, and electronic copies of the texts to allow proposed changes to be noted either electronically or in writing.
3.4.4.2 The Verification Process

The language practitioner verified the translation process by reviewing the texts in terms of their reference to each other, and in terms of their capturing the text, nuance and meaning of the original interviews as recorded.

The material provided was reviewed in terms of:

- Accuracy of transcription
- Accuracy of translation
- Appropriacy and consistency of translation
- Translation of gesture, idiom and meaning
- Flow of written text in the respective language
- Errors of syntax and typography

I effected the recommended refinements and corrections arising out of the verification process prior to comparative analysis of the textual data.

3.5 THE COMPARATIVE ANALYSES

I explored the data derived from the homoeopathic proving of Strychnos henningsii 30CH, in the form of materia medica [Appendix L] and repertory, [Appendix M] and data derived from the field interviews of traditional healers [Appendix Q(ii)] through qualitative and quantitative analyses. Through these processes of analysis I sought to refine the understanding of respective sets of data, and to clarify points of similarity, difference and complementarity between these two forms of information around the medicinal plant, Strychnos henningsii. Within these comparative analyses, I sought also to account for the possible relationship of these data to the pharmacology and/or toxicology of specific alkaloids confirmed through phytochemical
analysis of the bark sample (or, where these were unknown or poorly described, to their most chemically similar scientifically described alkaloid).

### 3.5.1 THE NVIVO® COMPARATIVE ANALYSIS OF INTERVIEW DATA AGAINST PROVING DATA

#### 3.5.1.1 The Data Analysed

I used NVivo® 9 software to analyse qualitatively the translated interviews of the traditional healers (eight individual interviews) [Appendix Q(ii)] and the 16 individual prover files which together comprise the materia medica of *Strychnos henningsii* [Appendix L].

#### 3.5.1.2 The Objectives of Analysis

I had two objectives in subjecting the 24 data sets to qualitative analysis:

1. To explore the consistency of the traditional understanding of the medicinal plant, *Strychnos henningsii*, amongst traditional healers collectively, and between the two categories of healer interviewed; and
2. to explore any relationships existing between the understanding and use of the crude substance amongst traditional healers, and the proposed use of the homoeopathic potency of the substance as indicated by the triple-blind placebo-controlled proving.

In pursuing these objectives, I coded interview data in terms of the research questions stated in 3.4.1.2 above, specific conditions in which the crude substance may be used, and common sensations and themes existing within the data sets. I similarly coded materia medica data in terms of themes, sensations and clinical conditions arising within the proving.
3.5.2 COMPARATIVE MATERIA MEDICA

I subjected the repertory of Strychnos henningsii [Appendix M] to comparative materia medica processes which sought to shed light on the coherence of the materia medica picture, the relationship of information arising from the proving to existing homoeopathic knowledge, and the internal dynamic of the new remedy in terms of Norland’s (2003; 2007) Mappa Mundi concept.

3.5.2.1 The Loganiaceae Botanical Family

I evaluated the degree of overlap between the rubrics of Strychnos henningsii and those of other prominent homoeopathic remedies from the same botanical family, Loganiaceae, by simple comparison. In this simple comparison I reviewed every Strychnos henningsii rubric in Radar® 9.0 and constructed a table in which the presence and grading of other Loganiaceae remedies were noted [Appendix R]. I made a simple quantitative comparison by repertorial chapter, and calculated the percentage overlap between Loganiaceae members and the degree of Loganiaceae representation within rubrics.

3.5.2.2 Cross-Kingdom Repertorisation

I repertorised 50 prominent Strychnos henningsii rubrics against existing homoeopathic remedies from the plant, mineral and animal kingdom using Radar® 9.0 software. In this repertorisation, I explored the relationship of Strychnos henningsii to other non-Loganiaceae plant remedies, mineral remedies and animal remedies, and compared those remedies having greatest repertorial similarity (in terms of those rubrics I had identified as being representative).
3.5.2.3  Mappa Mundi and Elemental Theory

I evaluated the rubrics of *Strychnos henningsii* in terms of the four elements and four humours described in Norland’s (2003; 2007) *Mappa Mundi* concept *[Appendix S]*, in order to shed light on the internal dynamic of the new remedy, and its possible relationship to information gleaned from interviews and scientific data related to the crude substance. I effected the coding and evaluation of repertory data against elemental theory through the use of *NVivo® 9* software.
CHAPTER FOUR: THE RESULTS

4.1 INTRODUCTION

The implementation of the methodologies described in the previous chapter yielded extremely diverse and detailed primary and secondary data. These included both subjective and objective proving data, objective phytochemical data, extremely rich subjective interview data, and various forms of quantitative and qualitative secondary data arising from a range of comparative analyses.

In presenting these very rich and varied results it is important to me that information arising from different paradigms of thought should be understood, as far as possible, from within its respective paradigm and epistemology. Towards the achievement of that objective I have endeavoured to devote a specific focus to the elaboration of each set of data.

In the presentation of the subjective proving and interview data, I have adopted a narrative style which seeks to convey the ‘life’ and feeling of the original capturing of the data through illustrative quotation from text, whilst emphasising the relationships and flow within the respective data sets. By contrast, I have presented the objective proving and phytochemical data in the ‘quantitative’ style appropriate to the rationalist-scientific paradigm.

Although I have made reference to certain immediately discernable relationships between different data sets, for the sake of clarity and flow, my focus in this chapter is on the presentation of outcomes and not the integrated discussion of points of emphasis within data sets, the relationships existing between data sets, nor the implications of post-hoc analyses [see section 4.5].
4.2 THE PROVING RESULTS

4.2.1 THE PROVER POPULATION

The proving was conducted on 32 healthy subjects, of whom 16 received *Strychnos henningsii 30CH* lactose powders, and 16 received placebo lactose powders impregnated with the same volume and percentage of ethanol as the verum powders.

The age of provers ranged between 19 and 53 years, with an average age of 25 years. Within the verum group the average age was 26.6 years, and the placebo group 23.4 years. There was a predominance of female provers over male provers, in the ratio of 25:7. In the verum group the ratio was 14 female: 2 male, whereas the placebo group was 11 female: 5 male.

Whilst cognisance was taken at the time of recruitment of the need to strive towards a representative ethnic sampling, the ethnic distribution of proving was predominantly Indian. This is reasonable and to be expected in terms of both the history of the region – a large number of Indians were introduced to the KwaZulu-Natal region in 1860 as indentured labourers – and the ethnic background of the four M.Tech.Hom research students, which was uniformly Indian. Due to the random allocation of provers to placebo and verum groups, respectively, it was not possible to match the two respective groups for ethnicity. The ratios of Whites to Coloureds to Indians to Africans were respectively 1:0:13:2 (placebo) and 3:2:7:4 (verum).

Although a majority of provers (19) were not familiar with homoeopathic philosophy, or did not have any other homoeopathic reference points, it is interesting to note that within the verum group the ratio of provers having knowledge of homoeopathy to those without such reference points was 1:1,
with eight provers in each grouping. The prover demographics as described are represented in Table 4, below.

<table>
<thead>
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<th>No.</th>
<th>Age</th>
<th>DoB</th>
<th>Ethnicity</th>
<th>Gender</th>
<th>Reference base</th>
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<td>W C I A</td>
<td>M F</td>
<td>Homoeo Non-Hom</td>
</tr>
<tr>
<td>02</td>
<td>24</td>
<td>03/04/85</td>
<td>W C I A</td>
<td>M F</td>
<td>Homoeo Non-Hom</td>
</tr>
<tr>
<td>03</td>
<td>23</td>
<td>03/12/85</td>
<td>W C I A</td>
<td>M F</td>
<td>Homoeo Non-Hom</td>
</tr>
<tr>
<td>04</td>
<td>20</td>
<td>04/02/89</td>
<td>W C I A</td>
<td>M F</td>
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</tr>
<tr>
<td>05</td>
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</tr>
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<td>M F</td>
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</tr>
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</table>

**Ave. 25 Totals** 4 2 20 6 7 25 13 19

**Table 4: The Prover Demographics**

**KEY:**

- **Placebo**
- **Verum**
- **With Homoeopathic References**
- **Without Homoeopathic References**

**SUMMARY:**

- **Total Provers:** 32
- **Age Range:** 19 to 53
- **Gender Distribution:**
  - Male: 19
  - Female: 13
- **Ethnicity Distribution:**
  - African: 20
  - Coloured: 6
  - Indian: 7
  - White: 2
- **Reference Base Distribution:**
  - Homoeo: 25
  - Non-Hom: 13

**Table 4: The Prover Demographics**
4.2.2 THE SUBJECTIVE PROVING DATA

The subjective proving data was derived from the journal entries of 32 provers (16 verum and 16 placebo). All provers started their respective journals one week before administration of the test substance, and journaled daily according to the protocol described in section 3.2.2.4 and contained in the Instructions to Provers document [Appendix G].

<table>
<thead>
<tr>
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<td>32</td>
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<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>195</td>
<td>53.9%</td>
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</table>

KEY: Obs: The number of journal entries made during the pre-proving observation week
      Prov: The number of journal entries made over the proving period
      Final: The number of proving entries having no pre-proving correlate
      %: The number of Final entries as a percentage of the total number of proving entries
      Total Final: The number of Verum Final entries having no Placebo Final correlate

Table 5: The Nature and Distribution of Journal Entries

In Table 5, above, I have provided a tabulated summary of the nature and distribution of journal entries. A total of 195 journal entries within the placebo group did not have a corresponding symptom in the pre-proving observation
period, and could therefore, in terms of the criteria for inclusion of a symptom as a proving symptom [see section 3.2.3.1.1], be reasonably attributed to the placebo or the experimental context and expectation. These 195 entries represent 53.9 percent of the total number of entries recorded by the placebo group. In contrast, the verum group produced 631 entries which had no corresponding entry in the pre-proving observation period and may reasonably be attributed to the verum and/or the experimental context and expectation. These entries also represent 84 percent of the total number of entries within the verum group.

This suggests to me that a) the verum group produced a much larger number of ‘symptoms’ than the placebo group, and b) that the nature of the symptoms produced after administration of the verum were more distinctly different from those produced in the pre-proving period, than were those of the placebo group i.e. only 16 percent of entries produced by the verum group in the proving had a pre-proving correspondent, as opposed to 46.1 percent of the placebo group.

When the 195 ‘experimental’ entries of the placebo group were compared to the 631 ‘experimental’ entries of the verum group for purposes of excluding verum entries that have an equivalent in the placebo group, only 50 verum entries had a placebo equivalent. This means that 92.1 percent of the entries arising within the proving, under the influence of the verum, had no equivalent in the placebo group, under the same experimental conditions.

I would contend that this represents a reasonable argument in support of the verum having produced distinct effects, at a subjective level, within the verum group, which were more numerous and more characteristic than those produced in a placebo group under the same experimental conditions, and which are not able to be attributed solely to the experimental context or the expectation of individual provers that they should ‘produce symptoms’.
| SECTION   | 01F | 02F | 03F | 04F | 05F | 06F | 08F | 11F | 14F | 15F | 16F | 20F | 22F | 23F | 28F | 30F | 31F | TOT |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| MIND      | 12  | 14  | 13  | 8   | 3   | 4   | 9   | 20  | 5   | 4   | 6   | 8   | 12  | 118 |
| VERTIGO   | 1   | 3   | 1   | 1   | 1   |     |     |     |     |     |     |     |     |     |     |     | 6   |
| HEAD      | 6   | 3   | 2   | 5   | 1   | 5   | 3   | 15  | 1   | 2   | 5   | 2   |     |     |     |     | 50  |
| EYE       | 2   | 1   | 8   | 5   | 5   | 5   |     |     | 2   | 3   |     |     |     |     |     |     | 31  |
| VISION    | 1   |     | 1   |     |     |     |     |     |     |     |     |     |     |     |     |     | 2   |
| EAR       | 2   |     | 1   | 1   | 2   | 3   |     |     |     |     |     |     |     |     |     |     | 9   |
| HEARING   |     |     | 1   |     |     |     |     |     |     |     |     |     |     |     |     |     | 1   |
| NOSE      | 4   | 2   | 2   | 1   | 7   | 4   | 1   | 2   |     |     |     |     |     |     |     |     | 23  |
| FACE      | 2   | 3   | 2   |     | 1   | 1   | 2   |     |     |     |     |     |     |     |     |     | 11  |
| MOUTH     | 6   |     | 1   | 1   | 1   |     |     |     |     |     |     |     |     |     |     |     | 10  |
| TEETH     |     |     | 1   |     |     |     |     |     |     |     |     |     |     |     |     |     | 1   |
| THROAT    |     |     |     | 6   | 2   | 3   | 3   |     |     |     |     |     |     |     |     |     | 14  |
| STOMACH   | 3   | 4   | 1   | 4   | 1   | 6   | 1   | 1   | 6   | 1   |     |     |     |     |     |     | 28  |
| ABDOMEN   | 2   | 4   | 2   | 5   | 4   | 1   | 1   |     |     |     |     |     |     |     |     |     | 20  |
| RECTUM    | 1   | 1   |     | 2   | 1   | 1   |     |     |     |     |     |     |     |     |     |     | 7   |
| STOOL     |     |     |     | 2   |     |     |     |     |     |     |     |     |     |     |     |     | 2   |
| BLADDER   | 2   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 3   |
| URETHRA   | 1   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 2   |
| FEMALE    | 1   | 1   | 1   |     | 7   | 2   | 4   |     |     |     |     |     |     |     |     |     | 16  |
| RESPIRAT. |     |     |     |     | 3   | 1   | 5   | 1   |     |     |     |     |     |     |     |     | 10  |
| COUGH     |     |     |     | 1   | 2   | 1   |     |     |     |     |     |     |     |     |     |     | 4   |
| EXPECTOR. |     |     |     |     |     |     |     |     | 1   | 1   | 1   |     |     |     |     |     | 3   |
| CHEST     | 1   | 2   | 2   | 3   | 1   | 2   |     |     |     |     |     |     |     |     |     |     | 12  |
| BACK      | 3   | 3   | 1   | 1   | 2   |     |     |     | 1   |     |     |     |     |     |     |     | 13  |
| EXTREM.   | 4   | 11  | 3   | 1   | 1   | 2   | 12  | 4   | 1   | 5   |     |     |     |     |     |     | 44  |
| SLEEP     | 1   | 4   | 1   | 1   | 6   | 1   | 1   | 1   | 3   | 2   | 1   |     |     |     |     |     | 24  |
| DREAMS    | 8   | 4   | 1   | 3   | 1   | 6   | 7   | 6   | 1   | 3   | 2   | 1   |     |     |     |     | 43  |
| CHILL     |     |     |     |     | 1   |     |     |     |     | 1   |     |     |     |     |     |     | 2   |
| PERSPIRAT.|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 1   |
| SKIN      | 2   | 1   | 1   | 2   |     |     |     |     | 1   | 1   |     |     |     |     |     |     | 8   |
| GENERALS  | 5   | 14  | 1   | 8   | 11  | 2   | 5   | 6   | 2   | 6   | 1   | 2   |     |     |     |     | 63  |
| TOTAL     | 47  | 86  | 9   | 59  | 16  | 56  | 33  | 53  | 83  | 14  | 33  | 8   | 50  | 7   | 19  | 8   | 581 |

*Table 6: The Distribution of Journal Entries by Prover and Section*
Focussed analysis of the verum entries by prover and materia medica chapter revealed that the provers who produced the highest number of Strychnos henningsii symptoms were provers 2 (86 symptoms), 15 (83 symptoms), 4 (59 symptoms) and 9 (56 symptoms). By contrast, provers 6, 18, 23, 28 and 31 all produced less than 20 symptoms each.

The chapters in which the highest number of individual provers produced symptoms were those of Mind (13 provers), Head, Sleep, Dreams and Generals (12 provers each), and Stomach and Extremities (10 provers each). As might be expected, these chapters also reflect the majority of symptoms (370 symptoms). Table 6 (above) reflects the number of journal entries/symptoms produced by each verum prover by materia medica chapter.

The 581 verum entries that met the criteria for inclusion as a proving symptom, and had no equivalent in the respective prover’s pre-proving observation, nor in the placebo group collectively, represent the symptoms produced by Strychnos henningsii 30CH in healthy human beings. These subjectively recorded effects constitute the verbatim homoeopathic Materia Medica of the substance, subject to verification and refinement through clinical application. This Materia Medica is to be found in its complete verbatim form as Appendix L, and is presented in a summarised form as section 4.2.3 (below) for immediacy of reference and ease of discussion.

4.2.3 THE MATERIA MEDICA OF STRYCHNOS HENNINGSII

4.2.3.1 The Mind

A wide range of mind symptoms were produced over the course of the proving. In order to create some order, and to facilitate comprehension of the effect of Strychnos henningsii on the psyche of provers, I re-arranged the mental symptoms as defined by the student researchers around themes. These themes were selected on the basis of commonality of mood or
sensation, or around a perceived dynamic. I have arranged the themes, for purposes of clarity, according to an underlying positive-negative/ connection-disconnection dynamic which I identify within the remedy.

4.2.3.1.1  **Heightened Senses**

A very early effect within the proving was that of increased acuity of all the senses [*Prover 2: day 1; Prover 4: day 1; Prover 25: day 2*]. This ‘very alert’ feeling was associated with a feeling of liveliness, increased mental activity and increased energy. There was mental hypersensitivity to noise, and, in one prover, considerable annoyance at not being able to rid herself of the smell of food on her hands after cooking or eating.

*Getting very annoyed about my hands smelling of food after cooking or eating. I wash them a few times. [Prover 14: day 13]*

4.2.3.1.2  **Good mood and Happiness**

There was a general feeling of happiness and elevation of mood – a feeling of being ‘happy for no reason’ [*Prover 23: day 6*].

*Feel more positive about things; feel happier with life. [Prover 2: day 15]*

These feelings of happiness and positive mood were seemingly persistent, and were reported even to have endured situations of conflict or frustration.

*Fought with my fiancé, but still remained happy. Did not let our argument spoil my mood. [Prover 4: day 5]*

*I was very bubbly towards the end of the day. I kept on giggling as if I’m drunk. [Prover 15: day 5]*
Noticed I’m much nicer than usual or showing more affection than usual. Just took my spending money and bought butter to bake for my dad because I felt it is unfair for him to buy them when I can bake them. He didn’t say thank you so had to force him to do so. But (I) was proud of myself. My mother thinks I have a hidden agenda because of this. But no hidden agenda just wanted to do something nice. [Prover 23: day 1]

(I’m) too nice. I even scare myself; made my sister breakfast in bed. [Prover 23: day 3]

Prover 23, as reflected in the quotes above, and in the quote below, found her happiness and generosity of spirit to be quite unusual, and evidently something to be protected.

Refused to go to my cousin’s funeral because I felt it would be depressing. It seems like I aim to please these days: washed my two sisters’ clothes and even offered to do that. I never do. [Prover 23: day 5]

4.2.3.1.3  Confidence

The general feeling of happiness, of being ‘on top of the world’ [Prover 30: day 27] engendered a striking feeling of confidence. Provers recorded that they felt able to tackle anything that came their way, felt more confident in their abilities, and more able to express themselves.

Increased confidence; was able to go on stage at church for first time. [Prover 4: day 3]

I feel confident in what I do and who I am, at work and out of work. It feels good to be acknowledged. [Prover 30: day 10]
I feel I can handle anything that comes my way. I managed to process my work before the cut-off time with no errors. (It) gives me a sense of accomplishment. [Prover 30: day 18]

*Work has been smooth sailing; nothing that I can’t handle.* [Prover 30: day 21]

In one prover the feeling of elevation and strength was expressed as something more akin to haughtiness – a feeling of being bigger, of being drawn backwards, and of not being able to connect with others.

*When I was consulting I didn’t connect with my patients. I felt like something was pulling me backwards. I felt bigger than the patient. I felt as if I was higher, and that my patient was as if she was very little (and) down there.* [Prover 11: day 3]

### 4.2.3.1.4 Increased Energy and Concentration

Energy levels were notably increased. This increase in energy occurred in the first half (within the first ten days) of the proving for most provers. Provers felt quite energetic and industrious, to the point of feeling restless or 'hyperactive' [Prover 15: day 5].

*Was very energetic and excited.* [Prover 4: day 4]

*Feeling fine and energized. I am in a relaxed and happy mood.* [Prover 30: day 3]

*In the evening around 18h00 I felt weird. Light headed though (having) lots of energy.* [Prover 18: day 1]
In addition, two provers recorded an increased ability to concentrate and to study, in one case, despite feeling ‘a little ill’ [Prover 25: day 11].

4.2.3.1.5 Relaxation

Five provers described feeling very much more relaxed and calm than usual [Prover 14: day 1] – even in the midst of commitments [Prover 15: day 2]. There was a feeling of connection to others, a desire to socialise and to interact with others in a relaxed environment. This feeling was curiously described by Prover 30 [day 30] as being ‘cool, calm and connected’ rather than the idiomatic, ‘cool, calm and collected’.

4.2.3.1.6 Spirituality and Connection

The desire to connect or to be connected was expressed elsewhere within the proving as an increased love for others, or a yearning to connect with ‘God’ or a higher power.

*Increased love for fiancé! Spiritually refreshed and re-rooted. [Prover 4: day 4]*

*Went to church today. (It) was wonderful. I felt God’s presence and it was comforting!* [Prover 4: day 5]

*I look forward to Monday evenings as I attend a spiritual service. It feels so good when you come out of there. (You feel) light hearted, and you feel you are closer to God.* [Prover 30: day 3]

By contrast, the feeling of isolation, alienation, and of being distanced from ‘God’ – or of losing one’s spiritual support was also expressed.
Feel like my emotions are distant, like I am less connected to my emotions and the moment. [Prover 2: day 7]

I also feel like I have been distanced from God. I have prayed less and had much less faith that God will look after me! This is very unusual and I hope it does not last long! [Prover 2: day 7]

Had to go to temple today for a prayer. I sat next to (a) weird woman who seemed to have some sort of mental problem. She kept talking and moaning and crying out to herself. She made me feel so uncomfortable as if she would infect me or something. It is strange that I reacted so strongly! I still feel strangely detached, as if I were a little removed from what was happening. [Prover 6: day 8]

I don’t know whether this is from (the) proving or what, but I don’t really miss my boyfriend as it used to be. I just find excuses not to see him. [Prover 11: day 2]

4.2.3.1.7 Anxiety and Paranoia

The notion of fear of infection or contamination suggested in the quote of Prover 6, above, hints at a very prominent theme arising within the psyche of provers: there was a tremendous anxiety and paranoia, a feeling that they were being pursued, that unseen beings (including deceased relatives) were approaching, and that they needed to seek company. The anxiety and paranoia was most noticeable at night and in the dark, and had a marked impact on sleep. This same anxiety and paranoia was seen in the dreams [see section 4.2.3.8 below].

Still a bit afraid to go to sleep. Decided to go to sleep with the lights on and slept the whole night through. [Prover 4: day 24]
At night I was lying on the bed facing the wall when I heard a man’s footsteps in the room [I do not know why I felt it was a man, I think it was the heaviness of the steps]. I was a bit surprised but not afraid at first because I thought it was my friend’s husband. But the steps seemed to stop next to my bed and then I heard heavy breathing. I was becoming more and more afraid as I realised that someone was standing behind me just breathing heavily. I turned around and there was no one there! I was terrified and confused because it was so real.

I tried to fall asleep again, facing the other direction. Just as I was starting to relax I felt someone [a man] whisper in my ear from behind ['hello']. I was terrified, I ran to my friend’s room and she had to sit up with me for half an hour before I calmed down enough to sleep. I slept with the light on, and a picture of Gurudev next to me, but I still kept getting strange images of rippling waves making up someone’s stomach and a knife being plunged into it and bones. [Prover 6: day 1]

In the evening I felt very anxious and fearful before going to bed. I found it hard to go to sleep, slept with lights on. Kept thinking I heard or saw something out of the corner of my eye. [Prover 6: day 2]

There was also a tendency to ‘over-analyse’, to think too much and to worry unduly – to the point of paranoia. This gave rise to restlessness and a need to do things – as a means of distraction.

Started over-analyzing very badly with no cause – thinking that I need to leave my boyfriend because he is not right for me and we don’t have fun or enjoy ourselves when together but looking back now, is completely not true, we have lots of fun together, but we are both deep people, not superficial and life affects us very deeply! We are both sensitive!!! [Prover 2: day 1]
Was slightly paranoid about my relationship with a guy I recently met. Was feeling a bit anxious for a while. That settled once I had reasoning injected in me by a friend. [Prover 18: day 5]

In the evening before I had got a disturbing phone call about some money going missing from work. (It) makes me anxious because I was the last person to see the money!!! (I) have been feeling very anxious and guilty that the money from work hasn’t been found. I don’t know why it is affecting me so badly because I didn’t do anything wrong, but I just feel so stressed out by the whole thing. [Prover 6: day 13]

Anxiety about work. Anxiety in general > being busy. [Prover 14: day 6]

Feel very worried about work but annoying. Can’t stop myself gaming, cleaning or doing anything (other than) what I should be doing. [Prover 14: day 13]

4.2.3.1.8 Irritability and Indignation

The hypersensitivity of mind, and indeed vulnerability of the psyche, resulted in an increased irritability (most notably in the mornings) at being compelled to do things, a relative disdain for the incompetency of others, and a certain indignation and intolerance at perceived injustices.

In a bit of an irritated mood this morning. [Prover 9: day 11]

Irritable. I just want to do my thing without people getting in my way, (in the) morning. [Prover 14: day 8]

Was very quick to get irritated with small situations. [Prover 25: day 17]
Went for hospital rounds. (I) got so angry that my group members were so incompetent! They had no rhythm to what they were doing and they were doing everything wrong and out of order. I wanted to just cry and walk out. I was angry and got tremors on my left leg. [Prover 4: day 16]

Had stubborn argument with Gran about how it is OK for a wife to divorce her husband who refuses to be faithful, even with kids involved. That she deserves love! (I) am quite passionate when arguing such things. [Prover 2: day 1]

(Had an) argument with fiancé. I know I can be oversensitive but it should not mean that he can say whatever he feels like saying to me. Spent time with my friends; I felt cheered up by their company. [Prover 6: day 5]

4.2.3.1.9 Apathy and Tiredness

The feeling of isolation and disconnection from ‘God’ and others, found its expression also in difficult concentration, absentmindedness and aversion to company. One prover described this ‘foggy’ state as being a dreamy ‘shock’ state.

Feels like I am in a dream/shock state. [Prover 1: day 13]

Miss my partner! Mind dull, thick, misty and foggy. [Prover 1: day 16]

I was so tired I could hardly focus on what I was thinking. Wanted to go home and sleep the whole day; hot, bothered, foggy, irritated, just want to be at home, alone and quiet! [Prover 1: day 20]

Decreased concentration! Absent minded! [Prover 4: day 10]
Realized by late afternoon that I was very distracted with whatever I was doing; a lack of focus. [Prover 25: day 8]

The ultimate expression of this emerging lethargy, lack of focus and distractibility, was a profound apathy to the point of numbness and a ‘couldn’t care less’ attitude.

I had a fight with my boyfriend and strangely he dumped me, but I couldn’t care less. I didn’t even understand the reason. Just thought he was being fussy for nothing. A few hours after that he phoned me asking whether I’m not sorry for what I did, and I wasn’t. He ended up being the one who’s apologising and I forgave him, but I don’t know what he did wrong. I absolutely felt nothing for his problems. I usually cry when we have a fight. This is strange. [Prover 11: day 7]

Truthfully I hate writing all this. Actually I am tired of everything and recently I have been bunking [skipping] lectures and I couldn’t care less. This is so strange for me to do. I am tired of everything. During a pharmacy practical we were doing LM potencies [I was doing Natrum mur.] I started to get all clumsy; dropping remedies, dropping everything. I couldn’t concentrate. [Prover 11: day 9]

4.2.3.1.10  Hypochondriasis

One prover [Prover 1] was convinced, throughout the proving, that she was on placebo, whilst three provers [Provers 4, 15 and 25] were convinced that they were gravely ill. Prover 15 described herself as ‘never been so sick in my life’ [day 13] and ‘if it’s not one illness, it’s another’ [day 16], and was convinced she had swine flu (although not going for a test – for fear of being diagnosed) [day 11]. Provers 4 and 25 were both also convinced that they had a very severe disease that was going unnoticed: Prover 4 presented herself to a local hospital [day 22] convinced that she had a severe disease,
and was discharged without any abnormality detected, and without medicine, after extensive radiological and pathological blood testing and overnight observation; and Prover 25 presented to me [day 10] [his proving supervisor was ill at the time, and not available to examine him] for ‘urgent’ treatment of what he believed to be ‘the worst disease I’ve had in my entire life’. There were no clinical signs, his day ten blood tests taken that afternoon revealed no abnormality [see Appendix N], and he showed no response to the prescription of a placebo. Both neglected to record these events in their journals.

4.2.3.1.11 Crying

Three provers described a feeling of wanting to cry, due to factors arising from their hypersensitivity, but being unable to do so.

4.2.3.2 Vertigo

Four provers described symptoms of vertigo and dizziness. The vertigo was associated with upward movement – getting out of bed, rising from a seat or standing – with a feeling of dizziness, disorientation and confusion. The sensation was described as ‘as if things are tilting’ or ‘as if I am moving’ and was perceived more as ‘a feeling’ than as something ‘visual’ [Prover 6: day 4]. The feeling of dizziness and confusion was ameliorated by closing the eyes or shaking the head [Prover 4: day 8].

4.2.3.3 The Head and Headaches

Eleven provers produced a headache of some form within the proving. The most common and characteristic headache was in the temples, but headaches were also localised to the forehead, the parietal and occipital regions, and displayed a range of extensions and sensations.
The temporal headaches were described as aching, sharp, throbbing and dull. The headache was most commonly experienced in the right temple, and often involved the right eye extended to the right occiput or down the neck. One prover described and extension of pain into the right jaw.

*Dull headache with sore points around right side; spots in right eye, over right temple and right occiput. [Prover 1: day 13]*

*Headache in temples got worse all day < noise and straining eyes. Felt sick; eyes irritated and painful. Headache in temples and eyes [sharp] and neck pain. [Prover 2: day 13]*

*Got a headache: throbbing in nature, located behind my left eye and temporal region which radiates to my neck. [Prover 3: day 1]*

*The headache above my eyes is dull (and) more diffuse. (It) started on both sides. Moved to left then to right eye. Minutes later (it moved) to the right temple region. Moved down to the neck. I felt pain down the right arm; tingling tiring pain. [Prover 11: day 1]*

*Felt an aching sensation extending from my right temple to right jaw. [Prover 1: day 1]*

These headaches were aggravated by noise and eyestrain, and ameliorated by massage. The frontal headaches were similarly described as aching, dull or throbbing, although in this context there was a feeling that the forehead was ‘compacted’ [Prover 4: day 2], somewhat like a ‘sinus headache’ [Prover 25: day 12] and aggravated by walking. The frontal headaches were more common in the late afternoon and were aggravated by walking.

*Dull frontal headache. [Prover 14: day 6]*
Throbbing pain in forehead in the mid-afternoon, < walking > sitting down. [Prover 15: day 3]

Throbbing headache in forehead and eyes. Occipital area and neck [back] stiff and painful. (I) feel nauseous and dizzy. Headache is killing me!!! [Prover 4: day 17]

Headache is back [23h30]. It is compressing on my forehead and eyes. Trying to sleep, feels like there is light shining on me while sleeping. [Prover 4: day 17]

There were few distinguishing features related to the parietal or occipital headaches aside from a peculiar sensation of an iron band extending from the left occiput to behind the left ear, resulting in pain on the left side of the head. The previously described sensation of throbbing and aggravation from motion, also used in the description of these headaches appeared to be generalisable to all the Strychnos henningsii headaches, regardless of localisation.

Other generalisable characteristics of the headaches include concomitant nausea, dizziness and irritability and heaviness of the head. Although a majority of provers recorded headaches in the morning, or on waking, this was not exclusive and headaches were also noted to occur at midday, in the late afternoon and at night.

An unusual sensation described by two provers [Provers 2 and 4] was that of wearing a skullcap. This dull ‘skullcap’ headache affected concentration and created a sense of fogginess, lifelessness and disconnection. Prover 4 described this very vividly:

Headache is situated at the centre of my head and moves to my left side, ear, neck and shoulder. It starts in the centre and moves over the
scalp and covers my head like a hat or sack and ends at shoulders and stops; but it starts all over again! (It is) > when I am sitting up (and) < as soon as I rise up. I feel like a zombie; so lifeless. I am scared I might die. I miss my mother! < when I close my eyes. Feels like my head does not belong to me. My body feels free, but my head feels burdened. It is like I am carrying a heavy load. Eyes worse when I move them around; > when focusing on one place; << dark. Palpitation and increased heart beat on any movement. I want to just cut my skull and open it up. I feel so lifeless; > if I look straight at the light. [Prover 4: day 17]

The skin of the scalp was dry and itchy (like dandruff), worse on the posterior half of the scalp and not ameliorated by scratching. The hair was also described as ‘very dry’.

### 4.2.3.4 The Sense Organs: Eyes and Ears

Aside from the hyperacuity of the senses described earlier, there were a number of symptoms affecting the eyes and ears as sense organs. A marked early manifestation of the proving was tremendous dryness and itching of the eyes [Provers 1, 2, 4, 9, 14, 25, and 28]. The eyes were red and sore with burning and stinging, and a sensation as if sand were under the eyelid. There was sensitivity to light, amelioration by closing the eyes, and aggravation from reading, watching television or working on a computer. Aside from this complex of symptoms, which are suggestive of viral or allergic conjunctivitis, there was a feeling that the eye was enlarged from within, and there was twitching of the left eye.

A little later in the proving, more overtly ‘allergic’ symptomatology was evident in the emergence of concomitant sneezing and lachrymation [Prover 9: day 13; Prover 15: day 11 to 13]. Two provers produced styes in a lower
eyelid \[\text{Provers 1 and 9}\], and another thought her eyes ‘look a bit yellow’ \[\text{Prover 4: day 20}\].

The itchiness described in the eyes was also seen in the ears, although in this context it was associated with the development of a post-nasal drip and a dry scratchiness of the throat \[\text{Prover 20: days 6 to 9}\]. There was exquisitely sensitive swelling of the left auditory canal, and the formation of an abscess, in one prover \[\text{Prover 25: days 16 and 17}\].

A decrease in both visual and auditory acuity was described \[\text{Prover 15: day 12}\] as well as a dottiness of vision \[\text{Prover 2: day 3}\].

4.2.3.5 The Respiratory System

As could reasonably be expected, the seemingly ‘allergic’ manifestations recorded in the eye and ear found an expression too in the nose and upper respiratory tract. Provers reported burning and tingling in the nose with copious sneezing, and the production of profuse mucous which was either thin and watery \[\text{Provers 2 and 15}\], or thick and yellow \[\text{Provers 2 and 20}\].

There was also some obstruction of the nose, and a tendency towards post-nasal drip \[\text{Prover 9: days 22 to 24; Prover 20 (as previously described); and Prover 28: day 3}\] which resulted in the throat feeling itchy and scratchy. There was the typical urge to cough, and the throat became red and painful – feeling raw or very rough ‘like sand’ \[\text{Prover 20: day 6}\]. Swallowing became difficult and painful ‘as if there is a lump blocking it’ \[\text{Prover 15: day 8}\].

The cough was typically dry and worse at bedtime. There was a feeling of heaviness associated with the cough, with anxiety and weight in the chest, and expectoration of a lot of thick white mucus.
4.2.3.6 The Digestive Tract

The proving symptomatology demonstrated a profound effect on the digestive tract, with a specific effect on the liver. Provers spoke of dryness of the mouth with a bad taste. This taste, although difficult to define, was variously described as ‘bile’, ‘off’ and nauseating.

Have had (a) very bad taste in my mouth the whole day... (I) cannot really describe it... Not pleasant, could make me nauseous. Taste is not bitter, but is maybe bile! Bad bile!!! < when I breathe out through (my) nose. I can’t explain (the) taste; maybe like after taste from off milk or cheese. [Prover 2: day 3]

The nausea and sensitivity of the gut, in a number of provers, caused severe abdominal cramping and vomiting. There was concomitant pallor, weakness and shaking. The prover who was most affected [Prover 2] associated her symptomatology with liver dysfunction. This ‘liverishness’ was supported in other provers’ recording that they had ‘a lot of bile’ [Prover 9: day 22], were ‘nauseous after eating KFC’ [Prover 4: day 5] and that overeating seemed to be ‘messing with my system’ [Prover 18: day 1]. In one prover [Prover 14: day 8] the discomfort was provoked by having eaten sweet things.

I feel very nauseous [10h30] and threw up. [Prover 9: day 1]

I start feeling nauseous around 16h00. Nausea disappears at 23h30. [Prover 9: day 2]

(I am) very nauseous [03h00]. I feel as if am going to throw up any minute. (I) also feel very weak and shaky- as if I have low blood pressure. It is how I imagine people to have low blood pressure. [Prover 9: day 24]
This afternoon I ate one segment of a naartjie (tangerine) and within 10 minutes, my stomach was in knots and cramping. (It was) very painful! (I) then got nauseous! (I) felt pale. The pains subsided within 20 minutes but (the) nausea got worse; I was gagging over (the) toilet bowl, thinking I was going to bring up. (It) was very severe. (I) forced down some water, and within 1 hour or so, (I) felt better. But after the nausea the bad taste has come back into mouth; very strong!! (I also) got very bloated, like I needed to pass gas but couldn’t! [Prover 2: day 5]

Still have the bad taste in (my) mouth. I think my liver is affected (because of) nausea, and taste, and waking between 01h00 and 02h00. (I am) also bloated and passing gas often... [Prover 2: day 6]

There was an increase of air within the gut, manifesting as frequent and foul-smelling eructations [Prover 1: day 5], a feeling that food were just sitting beneath the throat, and markedly increased flatulence.

Feels like a hamster has crawled into my throat and died in my tummy and now I am burping dead hamster!!! [unusual]. [Prover 1: day 13]

Now I have over eaten and feel so full. (I) feel like the food is sitting just beneath my throat. (The) bad taste in (my) mouth (is) gone now. (I) really enjoyed dessert. [Prover 2: day 4]

I have got bad gas! Passing wind often, even had loose stool this morning... (It’s) been the last couple of days where (I) can’t hold in the gas, unusual for me. [Prover 2: days 9 to 17]

The feeling of bloatedness with copious flatus was generally associated with para-umbilical cramping, described as a sensation of ‘needles in my belly button’ or of ‘something pulling my belly button’.
I have been having abdominal cramps for a while now; it feels like needles in my belly button and feels like something is pulling my belly button! [Prover 4: day 13]

Tummy was sore this morning after I ate yoghurt and seeds and apple for breakfast. The pain is crampy. (It) was also sore after last night’s rich curry. [Prover 14: day 10]

The sensation of cramping and spasm, of forceful contraction, was also manifest in the experience of hiccoughs [Prover 1: day 2 and Prover 2: day 1], difficulty in passing flatus [Prover 11: day 3] and constipation [Provers 1, 2, 9 and 20].

Got hiccoughs earlier in the shower; not normal for me. [Prover 2: day 1]

I tried to pass stool; (it) felt like it was coming out easily, then got ‘stuck’, and wouldn’t come out! I had (an) awful ‘incomplete’ feeling. Not normal for me... I usually pass stool easily. [Prover 2: day 2]

Intense pain before and on defecation. (It) felt like a plug; scraped on the way out. [Prover 1: day 10]

Two provers [Provers 14: day 8 and Prover 15: day 16] experienced increased frequency of stool, although only one described the stomach as ‘upset’ [Prover 15]. Prover 4 described her stool as looking black.

My stool is darker, almost black. [Prover 4: days 5 to 7]

There was a general decrease in appetite and a markedly increased thirst, particularly for juice or water with ice.
4.2.3.7 The Genito-Urinary System

By contrast, there were few proving effects in the genito-urinary system. There was increased urgency and frequency of urination with a dull pain in the groin after urination [Prover 1: day 17], and a feeling of ‘fullness’ in the bladder with little or no urine voided [Prover 1: day 11]. The sensation in the urethra was described as ‘warm, pressing, burning’ [Prover 1: day 11], and Prover 14 described burning in the urethra to only occur during the act of urination ‘not before or after’ [day 24].

The libido was consistently increased (in female provers) and there were changes in menstruation. The menstrual period was delayed, heavy and associated with irritability and increased levels of pain. The pain was described as ‘very violent’, ‘cramping’, ‘twisting’ and ‘pulling down... as if the uterus were about to come out’. The spasmodic nature of the pain was further reinforced by the experience of concomitant spasms in the upper extremities.

_Around 17h00 my periods were heavy and the pain very violent; pulling down (and) twisting. I started to lose my temper, shouting at my siblings. I felt like my whole uterus was going to come out, but the strange thing is that the pain is the same as the pain I had when I had my first period nine years ago; with spasms in upper extremities._ [Prover 11: day 6]

4.2.3.8 The Back and Extremities

Cramping and spasm were notable within the locomotor system in general, and not merely within the context of menstruation, as described above. Provers experienced cramps and muscular stiffness in both the upper and lower limbs and in the cervical- and lumbar spine.
The experience of cramping, pain and stiffness was most notable in the right shoulder [Provers 1, 2 and 14], although not exclusively. There was also a general feeling of stiffness in the neck and shoulders [Provers 2 and 11], various spasms of the forearm, and tiredness and heaviness of the lower limbs [Prover 2 and 14]. All pain and discomfort was aggravated by touch, rest and the commencement of movement, and ameliorated by warmth and massage.

Right shoulder (is) cramping badly. (It’s) very painful, shooting down (my) right arm and up (the) right side of (my) neck. Arm muscles (are) sore and stiff from playing squash. [Prover 2: day 6]

My upper extremity muscles are painful. I can’t even make a tight fist especially on my left hand. Also the trapezius and deltoid muscles sometimes go into spasm. These muscles are only painful when I’m trying to move. The spasm also occurs when I’m resting. [Prover 11: day 6]

Curious descriptions by provers within this area include sensations of coldness [Prover 1: day 8 to 11 and Prover 2: day 3] and numbness [Prover 9: day 12], a throbbing sensation in the hand [Prover 6: day 10], and pain associated with flexion of the knees [Prover 4: day 2].

Drove home and felt a weird throbbing feeling in my hand between my forefinger and thumb, similar to throbbing of the headache I had the other day. [Prover 6: day 10]

All the joints were painful, and there was pain in the lumbar region [Prover 1: day 18; Prover 2: day 4; Prover 15: day 6 and Prover 25: days 7 and 19] – most notably on the left [Prover 9: days 14 and 27].
There was general dryness and itchiness of the skin with the eruption of small red lumps – ‘like mosquito bites’ \textit{[Prover 2: day 1]}. Redness of the hands and feet was also recorded by two provers \textit{[Prover 14: day 10 and Prover 2: day 3]}

\subsection*{4.2.3.9 Changes in Sleep and Dreams}

There were profound changes in sleep patterns during the period of the proving, and most provers recorded some disturbance of sleep. The majority of provers recorded interruption of the night’s sleep – most commonly between 01h00 and 04h00, with the most frequently cited time being 03h00 or 03h30. The reasons for this waking were varied and included feeling hot, an internal feeling of restlessness, bad dreams, anxiety and fear, or aching muscles.

\textit{Between 01h30 to 02h30am I was incredibly hot and restless, especially in (my) legs. (It) felt like (the) muscles needed to be used. I could have even (have) gone for a run!! Was almost painful! Whole body was tense and restless. (I) couldn’t stop moving; turning over and over. Wide awake. Too hot, even though (a) very cold night. \textit{[Prover 2: day 5]}}

\textit{Woke up at about 03h00 feeling extremely hot. \textit{[Prover 9: day 27]}}

\textit{Woke at 03h00, anxious and fearful. \textit{[Prover 6: day 2]}}

\textit{Couldn’t sleep; I felt anxious. Had to get up and game. \textit{[Prover 14: day 3]}}

The influence of the resultant lack of sleep on irritability, tiredness and lethargy was described previously under sections 4.2.3.1.8 and 4.2.3.1.9, and will be further elaborated in section 4.2.3.11 below.
When they were able to sleep, provers produced a large number of dreams which have been grouped by theme in Appendix L. Although the significance of each dream is not able to be discussed in a summary, I wish to emphasise two significant threads which I observe to be woven through the many and varied dreams. The first of these relates to an idea of attack by evil and unseen forces – the idea of being pursued and deceived, in very active and fearful dreams pregnant with imagery relating to the ‘shadow’ side, and the other relates to an idea of connecting to ‘God’ or ‘significant others’ – or the notion of being separated from these sources of comfort, either by having been forsaken by them, by the passage of time, or by death. In some dreams these two threads run concurrently.

The first thread is most vividly encapsulated in the dreams of Prover 2 [day 1 and Prover summary] Prover 30 [day 1] and Prover 31 [day 3]:

 Had active dreams last night!!! Adventure dreams (of) escaping from people trying to catch us, breaking through the burglar guards to climb through the windows. Finding underground tunnels, running. Groups of religious people. One bad man under false pretences, posing to be good and religious, but he actually tortures and kills people. “Try to save the baby” – kept coming up over and over. Dreamt that I was writing in this diary. [Prover 2: day 1]

...Hijacked by two black men, defended herself with a knobkerrie; In a desert with friends watching animals, (I) saw an Arab woman giving birth and then a man snatches the baby from her and gives it to a beast who eats the child; Leaving home, black man outside, when outside he starts coming after her; she starts praying; he has a panga and wants to rape her. [Prover 2: Prover summary]

...I am alone near this dam and I could hear my nephew talking to somebody about a friend of his that lives somewhere else who has a
garlic and ginger factory or shop. How robbers had gone in and attacked them. Where I was, there is a line across the water with lime, I think. All of a sudden, when I looked on the other sides, there is a white male in his thirties pointing a gun at me. I got such a fright; I am now trying to move away from him. There is grass and I am wheeling myself in a chair, moving towards my nephew’s voice of whom I still cannot see. This man is still aiming at me but has not fired as yet. When I reach the other side, where I think I heard my nephew’s voice, there is no one there and I am all alone. Sleep broke – feel a bit scared. [Prover 30: day 1]

I was dreaming that I was attacked by demons. I woke up with short breath. My heart was pounding. I felt like the demon in my dreams was holding on to me and not allowing me to wake up. [Prover 31: day 3]

The second thread is reflected in a number of dreams grouped under the theme, ‘Nostalgia and family’, but two dreams which are illustrative within this context are those of Prover 2, Prover 4 and Prover 9:

Think I slept well. Dreamt fun, happy dreams for a change. Was at a party, dancing with boyfriend. Then he whirled me up and spun me round etc. I was laughing so much and felt really happy!!! [Prover 2: day 3]

I dreamt that my fiancé was not over his ex, so I gave him an ultimatum that it was either me or her, but he could not make up his mind, so I left him! Felt very sad and disappointed. I woke up and prayed about it. [Prover 4: day 7]
Had a good sleep. Dreamt that my sister had a baby boy and when I tried to carry the baby the head was too loose – so it was like it was almost detached from the neck. [Prover 9: day 4]

The most fearful and dramatic convergence of these two themes if to be found in the ‘dream within a dream’ described by Prover 4 on day 22 of the proving:

Woke up in such fear, had a terrible nightmare! Dreamt that I was dreaming that my fiancé tried to kill me [choked me]. Woke up and prayed [but was still in dream]. Then went back to sleep [in my dream]. Dreamt that I was dreaming that I was lying down and was hearing two people discussing someone’s engagement. One of the voices sounded like my dead sister and couldn’t recognise the other one. They sounded like they were outside, but I heard the voices and footsteps coming closer to me and I heard them in my room, but then they got closer to my bed and was jumping into bed with me. I got scared, prayed and woke up in first dream, but remained in the other! Then felt like my blanket was suffocating me. It was as if someone was deliberately holding the blanket tight on my head. I finally woke up and ran to my housemate’s room. Slept there, but soon was back in the nightmare. Continuously dreamt that someone was suffocating me. Kept waking up to realise that I was still sleeping. Continued to dream that I was dreaming that someone [couldn’t see anyone, just a voice] was there. I forgot what they kept saying to me, but I remember them saying that people who suck their thumb are not yet matured. He kept forcing me to speak, he kept grabbing me by my left lower ribs, tried to fight him, but he was too strong. Finally woke up completely, and fought to stay awake. Afraid that if I sleep again, I won’t wake up!!! I feel like God has forsaken me, I feel like I am in total darkness and evil is overshadowing me! Started reading the Bible. [Prover 4: day 22]
4.2.3.10 The Face and Skin

The skin was dry and very sensitive [Prover 3: day 3]. The skin felt tingly as if something were crawling underneath [Prover 18: day 1] and, in some provers, a rash described as a red area of raised lesions (like mosquito bites) was produced.

On the face there was a dry, itchy rash with a feeling of burning on the skin that compelled the person to touch [Proves 2: day 11]. In one prover there was increased oiliness of the hair and face [Prover 14: day 24], and in two provers a breakout of acne, mostly on the forehead [Prover 2: day 11 and Prover 3: days 2 to 3]. One prover [Prover 25: days 2 to 3] produced a fever blister on his upper lip. None of these symptoms is particularly characteristic, outside of its reference to general sensations described elsewhere in the remedy.

4.2.3.11 Cravings in Food and Environmental Sensitivities

There was a notable desire for sugar and sweet things – doughnuts, pastries [Prover 2: day 3] and cakes, and especially chocolate.

Craved sugar, especially jam doughnuts!!! Had chocolate croissant (and) loved it... Really enjoyed chocolate tonight. I'm not usually bothered too much by chocolate. [Prover 2: day 1]

Have had a definite sweet tooth lately, and loving it! [Prover 2: day 7]

Craving chocolate cake. [Prover 9: day 11]

There was also a craving for curry [Prover 1: day 11] and for meat and fish [Prover 1: day 27], as well as one prover developing a desire for juice [Prover 31: day 4].
Eating fish more often, which is unusual. Craving for meat, which is also unusual (since I’m) vegetarian. [Prover 1: day 27]

There was a general sensation of internal heat, and indeed of overheating, with a desire to undress. Coupled with muscular stiffness and catarrhal symptoms of the upper respiratory tract, some provers interpreted this as ‘developing ‘flu’ [Prover 9: day 7]. As described in 4.2.3.1.10 above, this experience of ‘flu was exaggerated to the point of hypochondriasis in two provers [Provers 15 and 25].

There was both a notable increase in energy, with restlessness and a desire to move – a feeling of internal energy that needed release [Prover 2: Prover summary], and a profound prostration. The provers felt extremely drained and exhausted [Prover 9: day 9] ‘like some sort of sick person’ [Prover 9: day 25]. To some extent this may have been attributable to the lack of sleep experienced by some provers, but the journal entries suggest a more fundamental and ‘diseased’ cause for the malaise and lethargy

(The) energy has officially drained from me. (I) feel extremely exhausted – throughout the day and slightly fluey. [Prover 9: day 23]

Energy levels at an all time low. I really don’t remember when last I was so tired. [Prover 14: day 14]

Feel as if a truck ran over me. (I am) feeling weak and tired. (I) feel very sick. [Prover 25: day 23]

It is of some interest to note that the majority of journal entries relating to the profound sense of lethargy and prostration described within the proving of Strychnos henningsii were recorded in the latter portion of the proving (i.e. after day 10).
4.2.4 THE REPERTORY OF STRYCHNOS HENNINGSII

4.2.4.1 The Abbreviation of the Remedy

The existing abbreviation of homoeopathic *Strychnos henningsii*, as reflected in *Radar®* 9.0, is *Strych-h*. Although this abbreviation was incorporated into the repertory ahead of this Hahnemannian proving, the three rubrics currently reflected against the abbreviation are derived from a single non-homoeopathic source description of utilisation in a traditional context, and not from an investigation into the effects of the substance on healthy subjects. I personally believe this attribution of rubrics to be misguided and erroneous, since the traditional use of a substance may arise from the pharmacology of its active principles, a chemical property of the substance itself, or its ‘homoeopathic’ capacity to induce the symptoms it is used to treat, amongst others. Until such time as a traditional effect has been clearly demonstrated to be able to be induced in healthy individuals it is unwise to assume *a priori* that it is ‘homoeopathic’.

The isolated alkaloid, strychnine, exists in the repertory as *Stry*. and the various mineral salts of strychnine are designated as *Stry-x.*, in keeping with standard conventions applied to the abbreviation of mineral salts.

4.2.4.2 The Distribution of Rubrics

The conversion of the 581 materia medica entries to repertorial equivalents, by the methodology described in section 3.2.3.3.2, resulted in the formulation of a total of 877 rubrics. There were four rubrics derived from the proving that were not included in *Radar®* 9.0 and these are proposed as new rubrics. The new rubrics are:

- NOSE: Odors; imaginary and real: dog, wet
- FACE: Eruptions; zygoma
FEMALE: Pain; twisting
FEMALE: Sexual desire, increased: noon

4.2.4.2.1 Rubrics by Chapter

The rubrics were distributed across 31 chapters. The chapters reflecting the highest numbers of rubrics were those of *Mind, Head, Extremities, Dreams* and *Generals*. There were no rubrics reflected in the chapters *External Throat, Kidney, Prostate Gland, Urine, Male, Larynx* and *Perspiration*.

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<tbody>
<tr>
<td>Mind</td>
<td>170</td>
<td>Throat</td>
<td>18</td>
<td>Chest</td>
<td>29</td>
</tr>
<tr>
<td>Vertigo</td>
<td>12</td>
<td>Stomach</td>
<td>27</td>
<td>Back</td>
<td>22</td>
</tr>
<tr>
<td>Head</td>
<td>76</td>
<td>Abdomen</td>
<td>33</td>
<td>Extremities</td>
<td>83</td>
</tr>
<tr>
<td>Eye</td>
<td>35</td>
<td>Rectum</td>
<td>15</td>
<td>Sleep</td>
<td>38</td>
</tr>
<tr>
<td>Vision</td>
<td>2</td>
<td>Stool</td>
<td>3</td>
<td>Dreams</td>
<td>90</td>
</tr>
<tr>
<td>Ear</td>
<td>8</td>
<td>Bladder</td>
<td>7</td>
<td>Chill</td>
<td>1</td>
</tr>
<tr>
<td>Hearing</td>
<td>1</td>
<td>Urethra</td>
<td>3</td>
<td>Fever</td>
<td>1</td>
</tr>
<tr>
<td>Nose</td>
<td>32</td>
<td>Female</td>
<td>21</td>
<td>Skin</td>
<td>13</td>
</tr>
<tr>
<td>Face</td>
<td>23</td>
<td>Respiration</td>
<td>13</td>
<td>Generals</td>
<td>80</td>
</tr>
<tr>
<td>Mouth</td>
<td>7</td>
<td>Cough</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teeth</td>
<td>3</td>
<td>Expectoration</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>877</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Table 7: The Distribution of Rubrics by Chapter*

4.2.4.2.2 Second- and Third-Grade Rubrics

Although all rubrics were accorded a default first degree grading (represented in the repertory in normal font, and carrying a weighting of ‘1’), those rubrics produced by three or more provers were accorded a second degree grading (represented in italics, with a weighting of ‘2’), and those produced by eight or more provers a third degree grading (represented in bold font, with a weighting of ‘3’). There were five third grade rubrics and 80 second grade rubrics. These are listed below.
MIND: Cheerful
MIND: Irritability
MIND: Prostration
GENERALS: Sides; right
GENERALS: Weariness
MIND: Activity; desires activity
MIND: Anxiety
MIND: Company; aversion to
MIND: Concentration; difficult
MIND: Confident
MIND: Detached
MIND: Dullness
MIND: Ennui
MIND: Fear
MIND: Forsaken feeling
MIND: Hypochondriasis
MIND: Indifference
MIND: Injustice; cannot support
MIND: Irritability; morning
MIND: Laziness
MIND: Mirth
MIND: Mood; agreeable
MIND: Positiveness
MIND: Quarrelsome
MIND: Restlessness
MIND: Senses; acute
MIND: Sensitive
MIND: Suspicious
MIND: Tranquility
HEAD: Heaviness
HEAD: Itching of scalp
HEAD: Pain; night
HEAD: Pain; Forehead, in
HEAD: Pain; Temples
HEAD: Pain; Temples: right
HEAD: Pain; dull pain
EYE: Dryness
EYE: Itching
EYE: Lachrymation
EAR: Itching; meatus
NOSE: Catarrh
NOSE: Catarrh; discharge, with
NOSE: Obstruction
NOSE: Sneezing
THROAT: Disposition to hawk
THROAT: Inflammation
THROAT: Itching
STOMACH: Nausea
ABDOMEN: Distension
ABDOMEN: Flatulence
ABDOMEN: Pain
ABDOMEN: Pain; cramping
RECTUM: Constipation
RECTUM: Flatus
FEMALE: Sexual desire, increased
COUGH: Dry
CHEST: Oppression
BACK: Pain; lumbar region
EXTREMITIES: Contraction of muscles
and tendons
EXTREMITIES: Pain; shoulder, right
EXTREMITIES: Stiffness
SLEEP: Disturbed
SLEEP: Interrupted
SLEEP: Restless
SLEEP: Sleepiness
SLEEP: Sleepiness; forenoon
4.2.5 THE OBJECTIVE PROVING DATA

Objective data derived from pathological blood testing were recorded on Microsoft Excel® spreadsheets and subjected to Repeated-measures ANOVA testing by an independent biostatistician to assess the effect of the verum prover compared to the placebo over time. Due to incomplete data sets relating to provers 27 (placebo) and 31 (verum), these were excluded from analysis (for all variables), and statistical analysis was conducted on the remaining 30 complete data sets (15 in each group). The Statistical Package for Social Sciences, Version 15 was used in the statistical analysis and processing (Esterhuysen, 2009b).

An overall time x group effect was examined as well as time x group effects using simple contrasts between each time point and baseline, and repeated contrasts for point 3 versus point 2. The time x group interaction effect was considered as the treatment effect. A p-value < 0.05 was considered to be statistically significant, and represents a significant treatment effect. Profile plots were used to visually assess both the direction and trends of the effects.
Statistically significant time x group interaction effect p-values were recorded for nine variables. These variables included the erythrocyte sedimentation rate, two red blood cell indices, four white blood cell indices and two liver function indices. The specific indices and the points at which treatment effects were demonstrable statistically are recorded in Table 8 below:

<table>
<thead>
<tr>
<th>Blood Index</th>
<th>Overall</th>
<th>$T_2 - T_1$ Base – Day 3</th>
<th>$T_3 - T_1$ Base – Day 10</th>
<th>$T_3 - T_2$ Days 3 – 10</th>
<th>$T_4 - T_1$ Base – Day 24</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESR</td>
<td>0.049*</td>
<td>0.026*</td>
<td>0.705</td>
<td>0.007*</td>
<td>0.929</td>
</tr>
<tr>
<td>Haemoglobin</td>
<td>0.619</td>
<td>0.377</td>
<td>0.662</td>
<td>0.199</td>
<td>0.796</td>
</tr>
<tr>
<td>RBC</td>
<td>0.751</td>
<td>0.577</td>
<td>0.717</td>
<td>0.318</td>
<td>0.541</td>
</tr>
<tr>
<td>Haematocrit</td>
<td>0.334</td>
<td>0.470</td>
<td>0.103</td>
<td>0.345</td>
<td>0.151</td>
</tr>
<tr>
<td>MCV</td>
<td>0.016*</td>
<td>0.002*</td>
<td>0.073</td>
<td>0.527</td>
<td>0.077</td>
</tr>
<tr>
<td>MCH</td>
<td>0.932</td>
<td>0.886</td>
<td>0.974</td>
<td>0.895</td>
<td>0.524</td>
</tr>
<tr>
<td>MCHC</td>
<td>0.172</td>
<td>0.031*</td>
<td>0.145</td>
<td>0.532</td>
<td>0.077</td>
</tr>
<tr>
<td>Platelets</td>
<td>0.280</td>
<td>0.071</td>
<td>0.054</td>
<td>0.659</td>
<td>0.461</td>
</tr>
<tr>
<td>WCC</td>
<td>0.694</td>
<td>0.689</td>
<td>0.652</td>
<td>0.368</td>
<td>0.437</td>
</tr>
<tr>
<td>Neutrophil %</td>
<td>0.524</td>
<td>0.232</td>
<td>0.675</td>
<td>0.588</td>
<td>0.794</td>
</tr>
<tr>
<td>Neutrophil Abs</td>
<td>0.714</td>
<td>0.873</td>
<td>0.840</td>
<td>0.740</td>
<td>0.403</td>
</tr>
<tr>
<td>Lymphocyte %</td>
<td>0.589</td>
<td>0.475</td>
<td>0.947</td>
<td>0.593</td>
<td>0.490</td>
</tr>
<tr>
<td>Lymphocyte Abs</td>
<td>0.110</td>
<td>0.546</td>
<td>0.287</td>
<td>0.019*</td>
<td>0.957</td>
</tr>
<tr>
<td>Monocyte %</td>
<td>0.694</td>
<td>0.777</td>
<td>0.235</td>
<td>0.456</td>
<td>0.510</td>
</tr>
<tr>
<td>Monocyte Abs</td>
<td>0.689</td>
<td>0.783</td>
<td>0.584</td>
<td>0.742</td>
<td>0.263</td>
</tr>
<tr>
<td>Eosinophil %</td>
<td>0.176</td>
<td>0.029*</td>
<td>0.044*</td>
<td>0.924</td>
<td>0.114</td>
</tr>
<tr>
<td>Eosinophil Abs</td>
<td>0.264</td>
<td>0.097</td>
<td>0.429</td>
<td>0.282</td>
<td>0.156</td>
</tr>
<tr>
<td>Basophil %</td>
<td>0.082</td>
<td>0.220</td>
<td>0.554</td>
<td>0.016*</td>
<td>0.787</td>
</tr>
<tr>
<td>Basophil Abs</td>
<td>0.035*</td>
<td>0.031*</td>
<td>0.762</td>
<td>0.009*</td>
<td>0.545</td>
</tr>
<tr>
<td>Total Protein</td>
<td>0.987</td>
<td>0.940</td>
<td>0.967</td>
<td>0.956</td>
<td>0.816</td>
</tr>
<tr>
<td>Albumin</td>
<td>0.930</td>
<td>0.512</td>
<td>0.572</td>
<td>0.919</td>
<td>0.837</td>
</tr>
<tr>
<td>Globulin</td>
<td>0.990</td>
<td>0.846</td>
<td>0.821</td>
<td>0.991</td>
<td>0.730</td>
</tr>
<tr>
<td>Total Bilirubin</td>
<td>0.694</td>
<td>0.565</td>
<td>0.873</td>
<td>0.484</td>
<td>0.444</td>
</tr>
<tr>
<td>Conjugated Bilirub.</td>
<td>0.194</td>
<td>0.449</td>
<td>0.035*</td>
<td>0.133</td>
<td>0.379</td>
</tr>
<tr>
<td>Unconjugated Bil.</td>
<td>0.721</td>
<td>0.425</td>
<td>0.648</td>
<td>0.690</td>
<td>0.293</td>
</tr>
<tr>
<td>Alkaline Phosphat.</td>
<td>0.720</td>
<td>0.305</td>
<td>0.283</td>
<td>0.697</td>
<td>0.917</td>
</tr>
<tr>
<td>Gamma GT</td>
<td>0.466</td>
<td>0.446</td>
<td>0.179</td>
<td>0.386</td>
<td>0.404</td>
</tr>
<tr>
<td>ALT</td>
<td>0.242</td>
<td>0.132</td>
<td>0.041*</td>
<td>0.262</td>
<td>0.413</td>
</tr>
<tr>
<td>AST</td>
<td>0.620</td>
<td>0.211</td>
<td>0.298</td>
<td>0.657</td>
<td>0.716</td>
</tr>
</tbody>
</table>

Table 8: Summary of Time x Group p-values arising from Statistical Analysis of Blood Data [* denotes treatment effect p < 0.05]

Although the specific statistics and profile plots relevant to each variable are discussed in greater detail in sections 4.2.5.1 to 4.2.5.3 below, it is opportune...
to note that there were no statistically significant p-values in the T₄ – T₁ column of the table. This suggests that, although a range of treatment effects were observed between baseline and day ten of the proving, by day 24 of the proving there were no statistically significant differences between placebo and verum groups, nor between baseline and end values for any variable in either group. This suggests that any objective change induced by the proving substance in the verum group, was of a self-limiting nature and effectively reversed by day 24 of the proving.

### 4.2.5.1 The Erythrocyte Sedimentation Rate (ESR)

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.679</td>
<td>0.020*</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.734</td>
<td>0.049*</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.026*</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.705</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.929</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.007*</td>
</tr>
<tr>
<td>Group</td>
<td>F=0.407</td>
<td>0.529</td>
</tr>
</tbody>
</table>

**Table 9: Tabulated Erythrocyte Sedimentation Rate Statistics**

The time x group intervention effect, as reflected in **Table 9** above, was just statistically significant for ESR overall \( (p=0.049) \). Specific contrasts showed that between time points 2 (T₂) and 1 (T₁) there was a significant difference between the rates of change of the two groups \( (p=0.026) \) as well as between time point 3 (T₃) and T₂ \( (p=0.007) \).

**Figure 8** (below) shows that while the effects in the two groups are similar from times 3 to 4, between time points T₁ and T₃ the effects were opposite i.e. the prover group experienced an increase in ESR values between T₁ and T₂ while the placebo group showed a decrease. Conversely, the prover group decreased from T₂ to T₃ while the placebo group increased.
4.2.5.2 The Red Blood Cell Indices

Significant treatment effects were observed with respect to the variables, mean corpuscular volume (MCV) and mean corpuscular haematocrit (MCHC). Tables 10 and 11, below, display the respective statistics and p-values of MCV and MCHC.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.721</td>
<td>0.034*</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.675</td>
<td>0.016*</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.002*</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.073</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.077</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.527</td>
</tr>
<tr>
<td>Group</td>
<td>$F=2.032$</td>
<td>0.165</td>
</tr>
</tbody>
</table>

Table 10: Tabulated Mean Corpuscular Volume Statistics
### Table 11: Tabulated Mean Corpuscular Haematocrit Statistics

The time x group intervention effect was statistically significant for MCV overall \((p=0.016)\), and specifically between time points \(T_2\) and \(T_1\) \((p=0.002)\) but not between any other time points. In contrast, the MCHC statistics demonstrated a non-significant treatment effect overall \((p=0.172)\), but the difference in rate of change between the two groups was significantly different between time points \(T_2\) and \(T_1\) \((p=0.031)\). These treatment effects are visually demonstrated in the respective profile plots below.

![Figure 9: Mean Corpuscular Volume over Time by Group](image_url)

#### Table

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.932</td>
<td>0.600</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.828</td>
<td>0.172</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.031*</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.145</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.077</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.532</td>
</tr>
<tr>
<td>Group</td>
<td>(F=0.326)</td>
<td>0.572</td>
</tr>
</tbody>
</table>
Figure 9 shows that while the effects in the two groups are similar from T_2 to time point 4 (T_4), between times T_2 and T_1 the effects were opposite i.e. the prover group experienced a decrease in MCV values between T_2 and T_1 while the placebo group showed a slight increase. In turn, Figure 10 shows that the prover group increased over time while the placebo group decreased over time. However the difference in rate over time was greatest between time points T_2 and T_1.

![Graph showing mean corpuscular haematocrit over time by group](image)

**Figure 10: Mean Corpuscular Haematocrit over Time by Group**

### 4.2.5.3 The White Blood Cell Indices

Significant treatment effects were observed with respect to four white blood cell indices. These included the absolute value of lymphocytes (lymphocyte count), the eosinophil percentage, and both the basophil percentage and absolute value of basophils.
There was a non-significant treatment effect on lymphocyte count overall ($p=0.110$). However, between time points $T_1$ and $T_2$ there was a significantly different rate of change over time between the treatments ($p=0.019$).

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.935</td>
<td>0.620</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.796</td>
<td>0.110</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.546</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.287</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.957</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.019*</td>
</tr>
<tr>
<td>Group</td>
<td>$F=0.898$</td>
<td>0.351</td>
</tr>
</tbody>
</table>

Table 12: Tabulated Lymphocyte Count Statistics

During this time the placebo group increased while the prover group decreased. This is clearly demonstrated in Figure 11 below:

![Figure 11: Lymphocyte Count over Time by Group](image_url)
<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk's Lambda=0.909</td>
<td>0.470</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk's Lambda=0.830</td>
<td>0.176</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.029*</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.044*</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.114</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.924</td>
</tr>
<tr>
<td>Group</td>
<td>F=0.00</td>
<td>0.986</td>
</tr>
</tbody>
</table>

Table 13: Tabulated Eosinophil Percentage Statistics

There was a non-statistically significant trend of a treatment effect on eosinophil percentage overall (p=0.176), however, between T_2 and T_1 (p=0.029) and between T_3 and T_1 (p=0.044) the rates of change of the two groups were significantly different, with the prover group experiencing an increase in eosinophil percentage over time whilst the placebo group experienced a decrease.

Figure 12: Eosinophil Percentage over Time by Group
In contrast to the eosinophils, in which there was a statistically significant change in the percentage of this white blood cell population without a significant change in the eosinophil count, the basophil population showed a statistically significant change in both percentage and basophil count.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.859</td>
<td>0.260</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.776</td>
<td>0.082</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.220</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.554</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.787</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.016*</td>
</tr>
<tr>
<td>Group</td>
<td>F=0.482</td>
<td>0.493</td>
</tr>
</tbody>
</table>

Table 14: Tabulated Basophil Percentage Statistics

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.904</td>
<td>0.443</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.722</td>
<td>0.035*</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.031*</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.762</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.545</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.009*</td>
</tr>
<tr>
<td>Group</td>
<td>F=0.066</td>
<td>0.800</td>
</tr>
</tbody>
</table>

Table 15: Tabulated Basophil Count Statistics

As is reflected in Tables 14 and 15 above, there was a borderline non-significant difference in rate of basophil percentage change over time between the treatment groups overall (p=0.082), and a statistically significant effect between time points T3 and T2 (p=0.016). In addition there was a statistically significant time x group intervention effect for basophil count overall (p=0.035), and specifically between time points T2 and T1 (p=0.031) and T3 and T2 (p=0.009).

The changes in basophil percentage over time are clearly visualised in Figure 13 below.
Figure 13: Basophil Percentage over Time by Group

Figure 14: Basophil Count over Time by Group
The interaction effects which occurred between T₂ and T₁ where placebo basophil count decreased and prover basophil count increased, and between T₃ and T₂ where the opposite happened, are demonstrated in Figure 14.

### 4.2.5.4 The Liver Function Indices

The statistical analysis of indices related to liver function indicated significant treatment effect with respect to bilirubin conjugation and the levels of alanine aminotransferase (ALT).

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.734</td>
<td>0.042*</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.837</td>
<td>0.194</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.449</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.035*</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.379</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.133</td>
</tr>
<tr>
<td>Group</td>
<td>F=1.343</td>
<td>0.256</td>
</tr>
</tbody>
</table>

*Table 16: Tabulated Conjugated Bilirubin Statistics*

Although the treatment effect was not statistically significant overall (p=0.194), the rate of change of conjugated bilirubin between time points T₃ and T₁ was significantly different (p=0.035).

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.978</td>
<td>0.893</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.859</td>
<td>0.242</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.132</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.041*</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.413</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.262</td>
</tr>
<tr>
<td>Group</td>
<td>F=0.190</td>
<td>0.666</td>
</tr>
</tbody>
</table>

*Table 17: Tabulated Alanine Aminotransferase Statistics*
The treatment effect on ALT was also not statistically significant overall \( (p=0.242) \), but a significantly different rate of change between the groups was observed between \( T_3 \) and \( T_1 \) \( (p=0.041) \).

![Figure 15: Conjugated Bilirubin over Time by Group](image)

The trend, reflected in Figure 15, showed that the prover group had a decrease in conjugated bilirubin over time while the placebo group showed an initial increase followed by a decrease. In contrast, Figure 16 clearly demonstrates different rates of change between the two groups' ALT values over time, with prover group ALT levels rising significantly between time points \( T_3 \) and \( T_1 \), while those of the placebo group decreased, in both cases returning towards baseline levels between \( T_4 \) and \( T_3 \).
4.3 THE RESULTS OF PHYTOCHEMICAL ANALYSIS

Although the use of strychnine as a standard when the sample was initially examined by High Performance Liquid Chromatography-Ultraviolet (HPLC-UV) showed a peak [not recorded] which elutes at the same retention time, among five others, this could not be considered conclusive, as the UV detector is not specific enough to readily differentiate between definitive molecular structural features of organic compounds (Mabusela, 2010b).

Consequently the sample was submitted for High Performance Liquid Chromatography-Mass Spectrometry (HPLC-MS) analysis. The high resolution mass spectrometer, as a detector, has the capacity to distinguish between various compounds which differ by their respective molecular weights (MW’s), calculated up to four decimal places. In a study conducted on material collected in Tanzania, Massiot et al. (1991) demonstrated the

![Figure 16: Alanine Aminotransferase over Time by Group](image)
presence of a total of 17 alkaloids aside from strychnine. The MW of each of these alkaloids was calculated, and along with that of strychnine, was used as probes to determine the presence or otherwise of structures corresponding to such MW’s in the sample under investigation (Mabusela, 2010b).

4.3.1 THE HPLC-MS SPECTRA

The trace corresponding to the total ion current (TIC) showed several peaks and was assumed to cover all detectable MW’s on the range scanned [Appendix P: page 1]. Contrary to expectation, probing for the MW of strychnine, as an assumed alkaloid, produced a negative result. Positive results were achieved, however, in probes against the MW’s of other closely-related alkaloids previously identified in the Massiot et al. (1991) study.

4.3.2 THE IDENTIFICATION OF INDOLE ALKALOIDS

Of the 17 alkaloids reported for Strychnos henningsii only four were isolated from stem bark, as was used in this sample, while the others were extracted from other parts of the plant. The first reconcilable MW was 370.1893 (pages 1, 2, 5 and 6), for which there are three candidates from the abovementioned list of previously-identified alkaloids. These are splendidine (1) (Figure 17), 23-hydroxyspermostrychnine-N-oxide (2) (Figure 18) and 17, 23-dihydroxy-spermostrychnine (3) (Figure 19).

The only other MW observed was 352.1787 [Appendix P: pages 3 and 4], with two candidates from the previously identified list of S. henningsii alkaloids, namely henningsiine (4) (Figure 20) and cyclostrychnine (5) (Figure 21).
Figure 17: The Displayed Formula of Splendoline (1) \((C_{21}H_{26}N_2O_4)\)

Figure 18: The Displayed Formula of 23-Hydroxyspermostrychnine-N-Oxide (2) \((C_{21}H_{26}N_2O_4)\)

Figure 19: The Displayed Formula of 17, 23 Dihydroxyspermostrychnine (3) \((C_{21}H_{26}N_2O_4)\)
MW 370.1893 was successfully detected in both the negative and positive modes, whereas 352.1787 could only be detected in the negative mode. Given the complexity of these molecular structures, it is difficult to explain this observation.

Compounds 1 and 2 (splendoline and 17, 23 dihydroxypermostrychnine) were also found in stem bark in the Massiot et al. study (1991), whereas compounds 3 - 5 (17-hydroxypermostrychnine-N-oxide, henningsiine and cyclostrychnine) were isolated from the leaves. Since there are no standards available for these compounds, it was not possible at the time of the analysis of the uMkhomazi sample to identify which specific candidate alkaloid or alkaloids were present. Phytochemical analysis by HPLC-MS was able to confirm, however, that at least one candidate alkaloid was present at each MW.
The data further showed that these compounds (whether as a single compound of a specific MW, or as a combination of compounds of similar MW) were present only in trace amounts. The MW 370.1893 compound/s were present at 1.24ppm, and the 352.1787 compounds at 0.94ppm. Notwithstanding the low concentrations, the confidence of the system in the respective MW’s was high. The measure of confidence in each MW is indicated in the respective MS Spectrum Peak Lists [Appendix P, pages 2 and 4] as 0.37 and 0.45, where a value less than one is considered to indicate a near 100% confidence, increasing as the value approaches zero.

Although strychnine itself was unable to be detected within the sample, this does not necessarily imply that strychnine-like properties may not be attributed to the bark. It would not be far-fetched to suggest that the alkaloids identified may possess similar biological or pharmacological activities to that of strychnine, albeit at different levels, since they are all structurally very similar to strychnine (Mabusela, 2010b) (Figure 22).

![Figure 22: The Displayed Formula of Strychnine (C_{21}H_{22}N_{2}O_{2})](image)

I contend that there is sufficient evidence in the literature to support the argument for the effects of strychnine-like compounds being biologically and pharmacologically similar to those of the pure alkaloid (Braestrup and Nielsen, 1980; Bagust et al., 1981; Frédéric et al., 1999; Jensen et al., 2006).
4.4 THE RESULTS OF THE FIELD INTERVIEWS

4.4.1 AN OVERVIEW OF THE RESULTS

The field interviews of eight traditional healers yielded two hours, 22 minutes, and 23 seconds (expressed as 02:22:23) of audiovisual material. The length of individual interviews varied between 00:36:21 [S1M] and 00:07:48 [S4D]. The average length of izangoma interviews was 00:19:10, and that of izinyanga interviews was 00:16:26. The average age of interviewees was 50 years, with the average ages of the izangoma and izinyanga sub-groups being 38 and 62 years respectively. The detailed demographics for the eight interviews (in interview sequence) are reflected below.

<table>
<thead>
<tr>
<th>No</th>
<th>Age</th>
<th>Duration</th>
<th>Location</th>
<th>Date</th>
<th>Gender</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>37</td>
<td>00:36:21</td>
<td>Melmoth</td>
<td>26/01/10</td>
<td>M F</td>
<td>Isangoma</td>
</tr>
<tr>
<td>02</td>
<td>73</td>
<td>00:24:41</td>
<td></td>
<td></td>
<td>M F</td>
<td>Isangoma</td>
</tr>
<tr>
<td>03</td>
<td>46</td>
<td>00:19:05</td>
<td>Weenen</td>
<td>01/02/10</td>
<td>M F</td>
<td>Isangoma</td>
</tr>
<tr>
<td>04</td>
<td>70</td>
<td>00:14:23</td>
<td></td>
<td></td>
<td>M F</td>
<td>Isangoma</td>
</tr>
<tr>
<td>05</td>
<td>42</td>
<td>00:16:09</td>
<td>Harding</td>
<td>08/02/10</td>
<td>M F</td>
<td>Isangoma</td>
</tr>
<tr>
<td>06</td>
<td>35</td>
<td>00:13:26</td>
<td></td>
<td></td>
<td>M F</td>
<td>Isangoma</td>
</tr>
<tr>
<td>07</td>
<td>35</td>
<td>00:07:48</td>
<td>Durban</td>
<td>29/04/10</td>
<td>M F</td>
<td>Isangoma</td>
</tr>
<tr>
<td>08</td>
<td>63</td>
<td>00:10:30</td>
<td></td>
<td></td>
<td>M F</td>
<td>Isangoma</td>
</tr>
<tr>
<td>Ave.</td>
<td>50</td>
<td>00:17:48</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Totals</strong></td>
<td></td>
<td>5 3 4 4</td>
<td></td>
</tr>
</tbody>
</table>

*Table 18: The Interview Demographics*

These interviews were transcribed to written text, translated into English, and analysed qualitatively using NVivo® 9 software. The results are presented below in terms of the eight defined areas of enquiry described previously under section 3.4.1.2. The complete isiZulu transcriptions and English translations of the respective interviews are to be found as Appendices Q(i) and Q(ii) respectively.
4.4.2 THE AREAS OF ENQUIRY

4.4.2.1 The Scope of Use

As was suggested by the review of the literature, the principal use of *Strychnos henningsii* (as ‘umqalothi’) by traditional healers was in the treatment of abdominal pain. These pains were described variously, as ‘sharp’, ‘pulling’, ‘tormenting’, ‘aching’, ‘cutting’ and ‘twisting’. Although there appeared to be some disagreement with respect to whether or not there is concomitant diarrhoea [see section 4.4.3 below], the pain was consistently identified as being para-umbilical, severe and disabling.

Yes, indeed it works. Or, with respect to this (plant), perhaps you are hunting and you are beset by abdominal pain that is really impeding progress. You would simply seek out its roots. After swallowing (them) you would (be able to) walk until you arrived home. [N1M]

Red bitterberry is included in the white herbal mixtures and is able to treat a person who may be suffering with abdominal pain. But, if he were to drink these (white) herbal mixtures, the abdominal pain with diarrhoea would come to an end. [N4D]

(A pain) which is decisive and intense. Incredible! (A pain) that is totally disabling and cuts right through you. Do you understand? [N2W]

We would use it extensively when a person is suffering from abdominal pains – an abdominal pain which is cutting, pulling or twisting. [S1M]

If a person has sharp abdominal pain, one knows to take its bark and grind it. One knows to have him (the patient) lick it, and within that
period of time, perhaps after 10 minutes, he would say that the sharp pains have subsided.

The abdominal pain of [requiring] Red bitterberry is one of sharp aching in the person’s abdomen, which may be experienced as a drawing sensation in his umbilicus. You see? When this type of pain is experienced, the person may be compelled to writhe about, due to the presence of a disturbance within his bowel. The Red bitterberry will reach in and take care of the pain.

It is a sharp pain that is disabling and cuts through the abdomen, and twists and turns. This is said [understood] to be because of the presence of something running about inside. You see? [S3H]

Abdominal pains. It is used in abdominal pains, when one is tormented by abdominal pains. It is a sharp pain in the umbilicus that draws inward. [S4D]

Although the focus, in the interviews, was on abdominal pain, it was clear that the medicine was used more broadly for affections of the stomach, nausea, and as a constituent of a number of purgative or emetic medicinal complexes.

This medicine is also used as an emetic to induce vomiting, in things such as a love potion... Used as an emetic it clears the blood vessels since this is where the evil spirits affect a person.

Even in the preparatory process of linking you with ancestral spirits, when you drink that water which is prepared, perhaps in a bucket, and which is to be used as an emetic. It is used in mixtures. But there are really a lot of these. It is included in many of these. [S1M]

There was frequent reference to the bitterness of the bark, and the
therapeutic benefit of this property. These references would support the documented use of *Strychnos henningsii* as a bitter tonic, and are discussed in more detail in section 4.4.2.3 below.

One *inyanga* confirmed the use of root bark in the treatment of snake bites, and one *sangoma* described the use of the bark in the treatment of a sexually transmitted disease described as ‘*ilumbo*’. Off-camera discussion revealed that this disease is clinically most similar to syphilis. The disease was described as being difficult to treat, associated with large ulcer-like sores on the penis, and marked inguinal lymphadenopathy in the later stages.

*Secondly, when a person arrives, perhaps (after) a snake has bitten (him), or an animal or a human being, one is able to contain this effect of the poison so that it does not escalate rapidly by (administering) Red bitterberry, because it gets in and breaks it down. Yes! It gets in and destroys that disease. [N3H]*

*Red bitterberry is (also) used in ground herbal mixtures for complicated sexually transmitted diseases. There is a mysterious, complex sexually transmitted disease. If it is said that you have “*ilumbo*”, then Red bitterberry is used included in our ground herbal mixtures for complex diseases. You lick it and suck it from the fingertips.*

*Because, do you know “*ilumbo*”? Because Red bitterberry is used a lot in strong herbal mixtures for (the treatment of) “amalumbo”... Those who have “amalumbo” become cachectic. [S2W]*

The interviews also revealed a number of uses of *Strychnos henningsii* which I have not encountered in my review of the related literature. These include the treatment and/or management of headaches, epistaxis, dysuria, hypertension, debility and wasting, and the depression of immune function
associated with HIV/AIDS.

The type of headache for which *Strychnos henningsii* is used is of a pounding nature, with a sensation of heat in the head and redness of the eyes. This headache is associated with epistaxis, and is not unlike those associated with hypertension (although not explicitly stated in the interview).

*It is used in a snuff for (the treatment of) headaches. A headache that has a sensation of boiling here [indicating the top of his head] in the head, that pounds, and causes the person’s eyes to become red and unable to see (clearly).

You use it in things like headaches. Such as when you, sometimes, develop a nosebleed, and blood is streaming from the nose. Perhaps this arises from being possessed by bad spirits. [S1M]*

Two healers made reference to the use of *Strychnos henningsii* bark in the management of (type 2) diabetes mellitus, although the clinical description of the diabetic patient is somewhat atypical. It would appear that in such cases the medicine is used as a single herb, as opposed to its inclusion within a complex, as is described in the management of hypertension.

*Because how do the medicines that help in diabetes work? It is a bitter medicine that destroys, at the time (of its occurrence), that thing in a person’s blood that causes his heart to beat vigorously, because (there is) something (that) causes the person’s blood to beat vigorously. It is this condition of a person’s heart that, when he walks quickly, the diabetes causes him to suffocate. Red bitterberry is able to assist in diabetes (because) it is able to reach (the disease process) and arrest it. [N3H]*
Then there are those who have been diagnosed with diabetes, who are losing weight, and appear to be anaemic. [S2W]

Red bitterberry is able to cure diabetes alone, without being mixed with any other medicine. One prepares it by putting it in lukewarm water, and a person drinks it in the morning, at midday and in the afternoon. The (blood) sugar (level) decreases, and one finds that when a person is checked he would find that it [his blood sugar level] has come down. [N3H]

Then it is used with other herbs for hypertension. Yes, in hypertension, it is used there. It is a very bitter herb and is combined with two medicines for drinking. [S2W]

Although I have personal experience of the use of ground *Strychnos henningsii* bark (as part of a medicinal complex) in HIV/AIDS, it was interesting to note that two izinyanga described this application in the course of their interviews. The use of the bark in this context may well also relate to the documented use of the bark as a bitter tonic, since the bitter property of a bark specimen is seemingly associated with its assumed potency [see 4.4.2.3 below]. I am also interested to note that the healers describing this use of the bark are working within urban contexts [N4D works within the Durban central business district (CBD), and N3H, although ordinarily consulting in a semi-rural setting on the outskirts of Harding, operates an itinerant clinic in a suburb twelve kilometres from the Durban CBD (uMlazi)].

Red bitterberry is also used in the medicines for complex disease [lit. all diseases]. Such as the medicine for the complex disease that human beings collectively are talking about, such as… this disease that is current that is called “igculazi”. Others call it “HIV”. It encompasses all the diseases on account of the fact that the body’s immune system is rendered unable to continue to work. This
necessitates that this medicinal plant be able to get inside and injure [hamper the progress of] the other diseases, in its particular manner as a medicine that destroys [has destructive properties]. [N3H]

You recognise signs such as the person being debilitated. His immune system is depleted. I would give him Red bitterberry so that I can see if his strength increases. [N4D]

Aside from the application of *Strychnos henningsii* in the ‘Western’ diseases described above, the stem bark and root bark are used extensively in a number of uniquely ‘African’ contexts. Bark is used in a large number of *amagobongo* during the initiation rite known as *ukwethwasa* as an aid to enlightenment and connection with ancestral spirits, in addition to its application as a ‘destroyer’ of malevolent forces operating within various forms of witchcraft. From the interviews it is clear that the bark is understood to be a potent force against evil, and to serve as an important means of connecting to the spiritual plane, whether this be understood as merely ‘the ancestors’ (as benevolent agents upholding the natural order), or ‘God’ in a more general sense.

This medicine is used in *amagobongo* to treat people who are ill and needing to undergo initiation into becoming diviners. This is a necessity when they have learnt to become doctors in the traditional Zulu manner. A person would be shown this medicinal herb, so that he necessarily gets this medicinal herb in (his) *amagobongo* and drinks it, in order to raise his messenger [ancestral spirit]. So that he is able to work and assist other people. [N4D]

A person drinks *amagobongo* when he is undergoing the process of initiation (as a traditional healer). One also puts it into this. In this case the roots are used. [S4D]
To make it clearer, when people’s channels are closed, it opens them up (so that) they become clear and he is (once again) able to see. Like in the case of a diviner: if a diviner were in a position where there was something that she was unable to see (clearly). But if she were to drink a Red bitterberry brew all would become absolutely clear to her. She would be able to see (with a clear understanding) and tell you the (precise) nature of your disease. [N4D]

(It can) also (be used) in the case of “umeqo”. Something (said to be) caused by “umeqo” originates in having been devised in such a way as to become [serve as] a plot against (someone else). It is a medicine that is able to destroy. [N3H]

It is used in charred herbal complexes; it is used in the herbal complexes that eliminate the cause of complex disease, (such as) those herbal complexes to eliminate diseases caused by walking across witchcraft placed on a path; it is used against all sorts of evil apparitions. [S4D]

It is a headache due to evil spirits, a headache from evil spirits such as arises from an evil charm which has been placed on one. Where there are things like this it will cure it. [S1M]

It is also included in the fumigation of wild animals in cases of evil spirits. When there is a wild animal [fabulous water sprites (and other) evil beings in human form] it is prepared and used as a fumigant, in combination with soot and cobwebs (as is found hanging from the roof of a traditional hut). [S4D]

This [abdominal pain] is said [understood] to be because of the presence of something running about inside... In that case, it is desirable... (that) you shock that thing inside that runs about in
endlessly quest, and arrest it by the use of izihlungu, because what is it that makes it wont to run (about)?

If one uses izihlungu as a medicine, one would accurately target that pain that was placed within that patient by medicines (of evil intent)... One is able to subdue that poison within the abdomen by including Red bitterberry (in a mixture). [S3H]

Repeated reference was also made to the barks’ inclusion in ‘white’ medicines (which are used to complete a cleansing process initiated through the use of ‘red’ medicines), and in various complexes for the treatment of different types of ‘complex disease’ [uzifozonke; amalumbo]. These ‘complex disease’ are also variously understood to have some origin in witchcraft or malevolent intent on the part of one’s competitors.

This capacity within umqalothi to ‘do battle’ and to overcome ‘adverse’ forces was also described in a non-medicinal context by one inyanga [N1M] who made reference to the strength and durability of the tree’s wood, which is used to make clubs for adolescent stick-fighting.

It is used a lot in (male) stick fighting. It does not get broken, indeed, even in stick fighting amongst young men, it does not get broken. It does not get broken, only the sticks can be broken off from (the trunk of) the Red bitterberry. [N1M]

The wood was described as being ‘as hard as cattle bone’ [N1M], and, indeed, the induku [a protective stick] of isangoma S1M was made from Strychnos henningsii wood because of its durability and potency against malevolent attack (both physically and spiritually). This fact was regrettably unable to be recorded on video because of battery failure.
4.4.2.2 The Modes of Administration

As has been described in the literature, the most commonly utilised parts of the plant are the roots (specifically root bark) and stem bark. No reference was made to the use of unripe fruits or leaves. Although I understood, from the interviews, that root bark is preferred over stem bark, particularly within the spiritual context, I was interested to find that the identification of a plant for use was universally described in terms of the appearance of its leaves and stem bark.

Whether root or stem bark is used, the most common mode of administration is as an oral dose of ground bark. This finely ground dose of bark may be either licked or sucked off the hand, drunk in water (as a cold water extraction or as a decoction), or taken as a snuff. One isangoma described the administration in porridge [S4D]. The administration of ground bark in amagobongo was not accurately described.

I only know that is it used as a ground herbal mixture that is either licked, or sucked from the fingertips. [S2W]

I just grind it, I grind it and to cook it I just boil it. Then I try to filter that medicine well so that you can drink it... it is exposed to the water for a very short time, and then I can give it to him to drink. If I give it to him to drink, he would feel that the abdominal pain is subsiding after a short while. [N2W]

If I were to just use it, as it is, as a single herb, I would take it and grind it, until it is fine powder. One crushes and grinds it until it is a fine powder. (If) it is found that a person has this problem of diabetes, I (would) take it and put it in lukewarm water. After having taken it and added the lukewarm water to it, I say (that) one should wait for a
period of 30 minutes. After the 30 minutes (of waiting) one would be able to use it, by drinking it. [N3H]

One harvests a quantity and then one crushes and grinds it. One sifts it and puts it into (one’s) porridge and eats it like this when one has a problem with abdominal pain... If one uses it normally, a half a teaspoon in a mugful of porridge. [S4D]

More rarely, the bark is administered as an emetic, or used in small amounts as an enema.

Used as an emetic it clears the blood vessels since this is where the evil spirits affect a person. [S1M]

One is also able to use it in minute quantities in medicines to be administered as enemas. [S3H]

The dosage was difficult to define, either as dry oral doses, or in terms of ratio of ground bark to water. The most accurate description of ratio and dose was described in reference to a decoction to be administered to a patient who was unable to swallow:

... one knows that one boils it, in a ratio of two spoons to a litre (of water), for a period of three hours until the mixture is hot, and then one allows it to cool down. Thereafter the person drinks a quarter of a cup in the morning and in the afternoon. [S3H]

Frequency and volume of cold water extracts were more easily described. From the analysis of interviews, I note the following:

- the medicine is typically not taken frequently, or in large doses;
- a quarter to half a mug of liquid seems to be somewhat standard;
• the dose is most commonly taken twice (to three times) daily; and
• dosage is adjusted according to clinical response.

It is necessary for you to dig up the roots and grind it to a powder...you pulverise it. Then you take half a teaspoon and put it in water, then when one drinks it. Finished... finished... the abdominal pains will be totally and completely over. [N1M]

A half [cup], you make a half, or even a quarter, and then you gulp it down. [N2W]

You would grind it, and put it in water, and let him drink half a cup. [S1M]

No, you could have him just drink it twice a day. In the morning (and), if it is such that it (the pain) continues, you would have him drink it again in the afternoon. That's it! It depends on how it subsides, because you will be monitoring him with professional expertise. [N2W]

One should take it twice in the course of the day, because it is a medicine that remains a long time in the stomach and works in terms how much is present. It works in terms of a requisite amount being present. [N4D]

The way that one should use it, depends, for instance, on how high his blood pressure is, because one would... We... I would normally enquire into how high the blood pressure is. If it appears that it is very high, I would perhaps, say that he should take four spoons in the morning, take four spoons at midday, and take four spoons in the afternoon. There will consequently be a decrease of it [the blood pressure], and the (number of) spoons will decrease over time. It improves. [N3H]
The use of ground bark as a snuff was described by one *isangoma* [S1M] specifically within the context of ‘headaches due to evil spirits’ associated with epistaxis. Another *inyanga* [N4D] confirmed the administration of ground *Strychnos henningsii* bark as a snuff in the treatment of headache, although making no reference to evil spirits or any other presumed aetiology or specific context.

*I use it as a snuff (because it is used as a snuff against the influence of evil spirits), and this snuff is indicated when you have a headache due to the influence of evil spirits. But this medicine can also be mixed with other medicines so that they work together to bring a particular person’s suffering to an end so that he can recover.* [S1M]

*One knows that, when Red bitterberry is inhaled by sniffing and combined with the other herbs to create a medicinal complex, the mixture taken as a snuff is able to overcome the headache, and the person would find (that) he comes right and reverts to his normal state.* [N4D]

Ground bark is also sometimes charred for inclusion in specific blood-purifying complexes for treatment of ‘complex disease’.

*For instance, it needs to have been roasted if it is to be included in a ground mixture to be taken orally by licking. It needs to be roasted until it is black if it is (to be included in a mixture) to be licked for (the treatment of) mysterious complex diseases.* [S2W]

### 4.4.2.3 The Observed Therapeutic Effects and their Explanation

As I have described above, the effect of *umqalothi* as a therapeutic agent appears to be attributed, principally, to two characteristics: its bitter taste, and
a perceived capacity to overcome malevolent forces, whether these be micro-organisms, snake venoms, or some or other form of witchcraft.

The language used by healers was interesting in that the words used not only describe an effect, but also suggest a certain penetrability of the medicinal action. There was frequent use of words suggesting a deep, almost magical effect, and very visual descriptions of how the medicine ‘does battle’ against non-specific harmful forces. The destructive capacity, which appears to be linked, if not directly attributed, to the quality of bitterness, was emphasised.

*What I am able to tell you about this plant that you are talking about called Red bitterberry is that it is a medicine whose mode of action is (in being) a bitter medicine.* [N3H]

*It is very bitter... it is very bitter. It enters the body and kills (pathogens).* [N1M]

*Secondly, when a person arrives, perhaps (after) a snake has bitten (him), or an animal or a human being, one is able to contain this effect of the poison so that it does not escalate rapidly by (administering) Red bitterberry, because it gets in and breaks it down. Yes! It gets in and destroys that disease.* [N3H]

*Red bitterberry is able to assist in diabetes (because) it is able to reach (the disease process) and arrest it [diabetes].* [N3H]

*We mostly use this medicine when we destroy (the effect of) oral poisons.* [S2W]

*Through its destructive nature, it kills microbes.* [N3H]
It is said that it creates a battle against that thing that moves about (inside). This is a thing that is a part of the Zulu magical understanding of people. Indeed, it is a small work of magic. [S3H]

After all it removes magic charms that would make one disagreeable or unattractive. [S1M]

The therapeutic effect of the medicine was also understood to arise from the method of preparation. The potency of the medicine was directly attributed to the fineness of pulverisation, the extent to which the pulverised bark is able to ‘become one’ [‘ukuhlanganisa’ – to effect the bringing together of different components into a union (Doke et al., 2008)] with water (as solvent and vehicle of administration), and its association with other herbs in medicinal complexes.

When you have pulverised it, it is a white medicine. But it is a medicine that is powerful. [S2W]

We do this so that it is perfect (for use) and in a very fine state. We do this so that it is perfect and able to be mixed well with another (medicine). Because a medicine that has not been ground finely is not able to be compounded easily. It is not able to mix well (with the others) and do the things we intend it to do. [N4D]

During that time I provide an opportunity for the water and this medicine to combine sufficiently. It should draw in such a way that one ensures that the medicine has integrated with the water, (and) that the medicine has diffused throughout the water, so as to ensure that it is a true (and reliable) medicine. Because, when one is to take a medicine and put it in water, the water (itself) should change. To the extent that it is not yet fully integrated, it will not yet have the constituents
sufficient to be an effective medicine. Yes, this is what we intend. [N3H]

There, (in using) Red bitterberry in (the treatment of) complex disease, it will come to play that [its] role (against) the poisons that caused the person to become ill... In those diseases, it could be that there are, perhaps, thirty (different) medicines combined (in a single medicinal complex). Many roots are brought together that, once ingested, are able to be disseminated throughout his [the patient's] body. That one leaves to take care of this, and another leaves to take care of that, so that the disease that causes one suffering is overcome. Because (the medicine for) complex disease contains (something for) a person who is suffering with headaches, pins and needles, backache, sharp pains, and suffering with pain in the buttocks, and whatever other suffering. It is necessary, in bringing these medicines together, that we ensure that the dose is such that a person can drink a particular dose according to how ill he is. [S3H]

The effectiveness of umqalothi as a means of ‘opening channels’ and of connecting to the spiritual realm was not explained. However, I was struck by a statement by one isangoma, in which she mentioned, within the particular context as if it were totally self-evident, that the effect of a medicine was to be found in its ‘very essence’, which was associated with a ‘spiritual’ dimension of its nature.

In working with traditional medicines, there is an ancestral power that is in the very essence (of the medicines). [S3H]

This statement has relevance to both the traditional African world view and the emerging understanding of homoeopathic medicines and their nature.
4.4.2.4 The Identification of the Need for Umqalothi in Sick Persons

The identification of the need for the application of the traditional medicine, umqalothi, appeared to be based almost entirely on clinical and ‘magical’ indications (as described above), and specific traditional contexts, such as the need to ‘raise his messenger’ [N4D] during ukwethwasa and in facilitating connection to the spiritual realm, in the case of izangoma who may be experiencing difficulty in ‘seeing’ clearly.

In addition to these more ‘logical’ contexts of application, both izinyanga and izangoma described a more ‘intuitive’ identification of need, and application, through the healer’s connection to the overtly spiritual realm of ‘the ancestors’. This means of identification was evocatively described by isangoma S3H:

*Sometimes, at the time I am still burning Everlastings, a specific medicine or another specific medicine is revealed, followed by a person(‘s voice) saying, ‘Boil those medicines and combine them with that medicine”. This means that, in terms of our working through (the agency of) the ancestors, there is an image which we are able to see, which is unable to be seen by another person, which is a secret of the ancestral spirit who reveals (that) secret thing to you by saying how you ought to do it. [S3H]*

4.4.2.5 The Identification and Harvesting of Bark or other Plant Materials

Although root and stem bark are the commonly used parts of the Strychnos henningsii tree, the identification of the tree is based upon the general appearance of the tree, the nature of its leaves, and the colour of stem bark.
The tree is described as being widely distributed and easy to find in traditional forests. One *isangoma* [*S4D*], in her description of the distribution of the tree, specifically identified *uMkhomazi*, where the bark sample used in this study was harvested, *Ndwedwe* and *uMhlab'uyalingana* as having forests in which the tree is to be found. *Inyanga* N2W, in contrast, identified the tree as not being found in the Weenen area, although he was able nevertheless to identify the tree by its characteristic leaf shape.

The tree was described as typically tall, with somewhat round small leaves which may be slightly pointed [*N2W and S2W*]. The colour of the bark was variously described as being anything between dark brown and light tan or grey, depending on where it is grown and the quality of the soil. The most conducive soils are understood to yield trees having a lighter coloured bark.

*How is it identified? By its leaf, but if one does not know one would not be able to. In the forest there are many different types. You simply identify it from another firstly by identifying the forest as an indigenous one. You can identify it by differences that exist between the leaves. This one is right, not that one! (The leaves of Red bitterberry) are green and it has a bark that is mature, but not too thick. [*S1M*]*

*If one were to look at it, one could describe it as, perhaps… ah… (compared) to that medicine over there [reaching down to pick up a piece of bark on the floor to his far left]. One could look at this (piece of bark), the one selected, (and) one could describe it as being a medicine [bark] that one could say is dark brown.*

*SSometimes it depends on where it is grown (and) the (appearance of the) tree varies according to its growing conditions. Indeed, favourable growing conditions would lead to one finding, perhaps, that the bark is of a lighter colour, when one is harvesting in a place that is well-suited to its growth. [*N3H*]*
Aside from one isangoma’s reference to the bark being most appropriately harvested at the beginning of the year, during full moon, the harvesting of *Strychnos henningsii* bark does not appear to have a perceived seasonal variation and is able to be harvested, according to need, throughout the year. All healers, however, were at pains to emphasise that the thickness of bark and the ease with which it was able to be peeled from mature trees were critical considerations.

*It is usually at its beginning (of the year). At the beginning of the year, we would use it according to how the moon is. How full the moon is... Let me explain it by saying that we would peel the bark when the moon is full.* [S2W]

*It can be harvested at any time, according to when it is required for use. (It) can be used at any time you require it. I collect it and let it dry, or at some point you can grind it (for medicinal use).* [S1M]

(Medicinal) plants do not have a (specific) time to be harvested. A medicinal plant is something that is needed all the time, and is harvested all the time. (With) medicines there is not a specific time that a particular medicine is harvested for use and set aside. It will be kept and used, but (some) medicine (always) remains and one proceeds in that way. It does not have a designated time in which it becomes ready. [N3H]

*Red bitterberry does not have a particular time when one would harvest it. The only thing that could be said is that one collects (from the tree) that is ready to be used. One leaves the young trees to mature.* [S3H]
It should be the mature trees, which can be recognised by having bark that is rough and peeling away. This is the one that you can use, not the young, immature tree…not the immature tree. [S1M]

By the bark. (We look at) its bark when we are peeling it off. The bark of the immature tree is not thick and fat, it (the bark to use) should be thicker and heavier. [S2W]

One isangoma provided a very clear explanation of harvesting, and further emphasised the importance of ensuring the long-term viability of mature and well-established trees as a source of good healthy bark.

You recognise the tree as being fully developed, old and spread out [well established]. You would also find that its roots are deep and well established. It is not that tree which is immature and cannot yet do anything, which is not yet in bloom, and cannot yet be (used) with anything. One wants to find a tree that has a stem that, when one peels the bark from it, one finds it [the bark] to be thick and mature. Yes, this means that that tree is old and ready to be used.

I have never harvested Red bitterberry when it was a young tree, or a sapling, or indicating that it is still growing. But it is appropriate to find a mature tree that is in full bloom (and ready to be used). From these I would peel bark in such a way that I do not cause the tree to become dry, and so that it is still able to continue (growing) so that if others were to arrive they would also be able to harvest. It is necessary for me to peel it in this way so that it would continue to grow and be able to be returned to, if I needed to return on another day [at another time]. [S3H]
4.4.2.6 Any Observed Ill Effects

As described in section 4.4.2.2 above, the bark of *Strychnos henningsii* is used judiciously and either as a single dose, or only as frequently as would be required to achieve the desired therapeutic effect. None of the healers attributed any ill effect directly to the use of *umqalothi*, but it was clear that small doses were preferred over more substantial doses. Most healers attributed the need for smaller and less frequent doses to the bitterness of the bark (which may be attributable to the presence within the bark of strychnine of strychnine-like compounds) and the gustatory discomfort which may arise in having to ingest a very bitter medicine frequently.

*One can give it once or twice (a day). Red bitterberry is very bitter. One would never want to drink something so bitter frequently.* [S4D]

Although the consequences were not elaborated, it was explicitly stated that only a minute amount was to be included for use as an enema.

*One is also able to use it in minute quantities in medicines to be administered as enemas. No, one is definitely able to (include it) where it has cleaning effects, because it brings about a battle against the thing that pollutes the patient’s internal environment. You know what is meant by “minute quantities”? [S3H]*

The isiXhosa expression used in this context, ‘cinsi emthini’, and translated in text as ‘minute quantities’, suggests a very small amount analogous to what in colloquial English would be understood as ‘a pinch’.

4.4.2.7 The Mode of Transmission of Traditional Knowledge

The mode of transmission of traditional knowledge varied between *izinyanga* and *izangoma*. Whilst the norm for the transmission of indigenous medicinal
knowledge was clearly through the initiation rite known as *ukwethwasa*, two *izinyanga* described a somewhat different process of apprenticeship under a living relative.

*I was able, in the end, to be a person who also knows how to use these things through (my) closeness to my grandfather... Finally I took the decision that I should continue to learn. I learnt those medicines, those for inhalation by livestock and the medicines to feed as a dry powder at those times (that they are needed). As I progressed and became an early adolescent there were medicines that I sought to induce vomiting. My grandfather easily showed saying the emetic medicines are dug up by... you take a particular medicine and another medicine and mix them together, then you use them in the induction of vomiting. My father also had a little knowledge (about these things)... In the end I had that inspiration to deal with medicines. My being a herbalist could be said to have begun in that way. [N3H]*

*My being in the profession of herbalist began when I was a young lad of 15 years old. My father was a herbalist, my grandfather was a herbalist, (and) the opportunity arose that I should also become a herbalist. This is how I entered the profession. And I also made progress. I went to herbalists to piece together the knowledge, and returned home with it. [N4D]*

The *izinyanga* also described an ongoing process of education and refinement of existing knowledge, whether through chance exposure to other healers or through intentional seeking out of opportunities for sharing of knowledge.

*Once I had returned from (my) training, and had become a herbalist, I worked, (but) I was not based at home. Because I took what I already had, and I added to it as was necessary. I made progress by*
repeatedly going off to consult with my peers who were (also) not yet well established. I still go out into other communities to find more effective and better developed forms of practice so that I can pilfer some of that knowledge to advance (my) wellbeing. [N4D]

Yesterday a number of herbalists were here to share experiences and teach each other. They left with a lot (of knowledge), and I remained (here) with a lot (of knowledge). [N1M]

This need for knowledge to be extended and shared, for the betterment of the entire community was elegantly expressed by inyanga N1M:

We may proceed because the work, and indeed the knowledge, is to be shared between people. One day we will leave the knowledge behind, whether we know or don’t know, but what we do know needs to be explained and carried forward into society so that what has been discovered can be applied in making people well. [N1M]

Whilst the period of training appeared to vary enormously between one week [N2W] and several years [S4D], the mode of instruction appeared to be largely one of apprenticeship by imitation.

When one undergoes initiation, one uses the same medicines that are already being used by the trainer, and you imitate the way that he/she is using them. [S1M]

You are taught how to divine and are also taught (how) to treat medicinally so that, if a person had arrived with a particular problem, you were able to know how you should act. [S4D]

A very prominent component of training, and indeed knowledge and practice, related to the relationship of the individual healer (particularly in the cases of
the izangoma) to ‘the ancestors’. The relationship is established at the time that the healer is ‘called’ to be initiated, developed during ukwethwasa, and is drawn upon as a seemingly infinite source of insight and knowledge throughout the healer’s life.

All the healers described some form of ‘illness’ which typically did not respond to treatment, and which inevitably led to a critical moment when an ‘ancestor’ appeared and instructed them that they were to enter ukwethwasa. During ukwethwasa the relationship with the ancestral spirits is developed and the ‘illness’ is cured.

At this time you become chronically sick, and then the ancestors tell you to go for initiation now. This is not something you get out of; it feels like there is something that scoops you up and puts you in that house where you will undergo initiation. But at the time you are not aware of how you got there, because there is something that that keeps telling you to go there, but you are without consciousness. [S1M]

It just happens when one is young, because indeed it just happened when I was young, and one, perhaps, becomes ill. You become ill without being able to recover. (Even) if you are taken to the hospital you are (still) unable to recover. [S4D]

Having arrived in the night, the ancestors proceeded only to talk. One person came and said, “Listen up. We are asking you to go to KwaZulu, near Nquthu, to the homestead of Masondo, and ask them to initiate you into the profession of herbalism, and teach you all the medicines of traditional herbalism (at the homestead of Masondo).” [N2W]
Once I was woken up, he, my grandfather told me to get up and go to Sithole's homestead. By the time I arose, I was hysterical. I got up, screaming and raving like a hysterical woman, and opened the doors and left, to go to where I had been told. I can say it took a lot of effort. By foot, I arrived the next morning. [S2W]

Through the establishment of the 'ancestral' relationship during the period of initiation, izangoma are able to access profound insights into the nature of patients presenting for treatment, and are able to prepare appropriate medicines, to the point of sometimes including medicines that they do not formally know, or using methods not previously used. The nature of this 'ancestral' input is variously described as a voice (in most cases, of a male elder), a 'whistling spirit', or as a visual image akin to watching a film or television.

An ancestor. One of those who are have passed on. By saying, this man can be helped by this medicine. They instruct me to mix the herbs in a way that I may not know. It may be said that I should take a herb and mix it with another herb so as to help the patient. I take it and work in the way I am told in my ears as was the case when they originally possessed me. [S1M]

You are told in an image that this person, when he is suffering, perhaps he is sick, they would be telling you that this person, for instance, is suffering from a headache; he is a person, how did this headache originate?, who has been bewitched. Indeed! He needs to be given specific things.

The ancestors tell you to mix this and that, because [but] sometimes the ancestral spirit ignores the medicines that one has and tells one to go (elsewhere). Perhaps it says, “Go out and harvest Black Jack”... (It tells you to) grind the Black Jack and and have the patient drink it, because it is the patient's cure. And you (in turn) learn a medicine
through realizing (that), “OK, this is something I should take note of because it works”. It is a process of learning that is taught by your ancestor in saying, “Do it like this with respect to a particular disease”. [S2W]

One starts to see images that play like a film when you predict. By its nature the film tells you all about the patient in this way: you see his defects and ailments and he is revealed and you see him. But when this film comes during divining it compels me to work faster. I work quickly so that I don’t lose the things I am seeing. It comes into my conscience that this man is suffering from the things revealed in this way, or that way, or the other. [S1M]

At the time one is in the trance state, one talks with the elders, and a situation arises that, perhaps, could be described as being like a television. Perhaps the voice of the person who is talking, who is unable to be heard (by anyone else), is able to be heard (only) by me, who perceives him. Perhaps I am hearing my grandfather’s voice). ... Sometimes... a specific medicine or another specific medicine is revealed, followed by a person’s voice) saying, ‘Boil those medicines and combine them with that medicine”. This means that, in terms of our working through (the agency of) the ancestors, there is an image which we are able to see, which is unable to be seen by another person, which is a secret of the ancestral spirit who reveals (that) secret thing to you by saying how you ought to do it. [S3H]

4.4.2.8 Personal Perceptions of the Role of the Traditional Healer

In our enquiry into healers’ personal perceptions of their roles as izinyanga and izangoma, we were less concerned with the assumed roles of curing ailments through the use of traditional herbal medicines, or divination per se, but rather on how healers saw their role with reference to the patient, within
their respective communities, and in terms of other medical systems. Towards ultimately bridging the gap which exists between TAM and orthodox medical practice, particular focus was placed on their understanding of, and current interaction with, the orthodox medical system. Homoeopathy as a medical system was largely unknown, although one *isangoma* [*S1M*] spoke quite extensively of the application of ‘similars’ within TAM practice.

Traditional healers clearly understood their role to extend beyond the mere removal of disease. There was a consistent emphasis of the need to understand the patient and his disease within a broader community context. This inclusive view took cognisance of non-physical factors which may have either a causative or a maintaining role within the individual case of dis-ease, and the need to address these as a necessary element of ‘cure’, and the broader notion of their being a healer of the community and not merely of the individual. This ‘communal’ responsibility was beautifully expressed by *inyanga* N3H (quoted below) as encouraging people to ‘have humanity’ and to live together ‘in harmony’. I understand this to simultaneously incorporate the traditional concept of ‘ubuntu’ [humanity] and the overarching African understanding that ‘umuntu ngumuntu ngabantu’ [a person is a person through other people] – one is only truly well when one conducts oneself well within an integrated community (Setiloane, 1986: 41).

*When a person comes... as a patient, he arrives and at the outset we greet each other and ask after each other’s health, and he introduces himself by (providing) his name and surname. He would then say that he has a particular problem, which he will explain in terms of his experience of his state of health and how well he is. Then I will focus my attention on him, and ask him when this thing started, how long ago he first noticed it, and what he suspects it is due to. He is then able to say: “No, this thing started at a particular time. When I consider what it is due to, it is caused by this”. In this way we are able to co-operate in the exploration (of the problem). [N3H]*
When I am about to predict for him I don't know him. He has an understanding of what he is suffering from, but he seeks to understand where this thing that troubles him originates from. You see? What is it due to? In my case, when I predict, it is necessary to start by telling him what he is suffering from. In precise detail, I tell him everything that I am able to about this already known thing that he is suffering from. At this point I ask my grandfather... I call to all the ancestors to whom I (am able to) call. Then a person’s voice will emerge saying (that) he suffers from this and that; it arose in such and such a manner; it is such and such a thing; (and) take (this) particular medicine and cure the particular thing.

One is not (always) able to treat him [a patient] solely by a herbal medicine, because sometimes you will find that his disease does not require you to treat him by a medicine. It requires (rather) that you pray deeply for him, and (that you) entreat God, and he emerges healed at that (particular) time. Your praying for him requires you to place (your) hand where the suffering is felt, and in so doing one carries away the suffering, and he says, “I no longer feel it [whatever was described]”. [S3H]

Within the community, as a person who deals with traditional medicines and who has a place [responsibility] amongst all the people within it, it is my role to bring (disparate people) together so that I bring about unity amongst the people. To link (people) to each other... It is necessary for me to encourage the people to accept each other within the community. In other words... so that they have humanity. Even if one (person) does not see (things) in a way that is similar to another, but it is nevertheless an important thing to work towards his one day (in the future) seeing (things) similarly to you. It can be said that the bringing together of (disparate) people that I engage in, as a person who is a traditional healer, causes people to understand that they
should co-operate. That he is a person from whichever district or location does not matter at all, but the important thing is that people should live (together) in harmony. [N3H]

Within this broader community responsibility, the interviews revealed that healers sometimes refer patients to other traditional healers (e.g. inyanga to inyanga or inyanga to isangoma), and very often to orthodox establishments such as clinics and hospitals. The general understanding of the underlying principles of orthodox medical practice, or the nature of medicines used, is poor, but the relationship of the two systems of medicine to each other, in terms of their respective effects, is clear – at least to individual healers [see section 4.4.3 below].

Except that when I am predicting, and in predicting I find that the issue is beyond my powers, I know that it is necessary to refer this case to a specific person, in a particular place, it is necessary to refer to a specific person... I am able to deal with many things, but sometimes you need to refer a person. Such as to a hospital... That is how we make progress. [N1M]

In my case... when I see that a person is debilitated, I refer him to the doctor so that he can give him an injection to restore his strength. Once he has regained his strength there are things [traditional medicines], that are never given by that doctor, that I need to give him. Because he would have the strength once he left the Western doctor.

Yes... I personally see a similar intention between the Western doctor and the traditional one, because now we co-operate with them. For instance, if I were to see something that confused me I would refer it to him. [N4D]
They are complementary, my brother... because sometimes I need to weigh up whether this person needs to take tablets rather than to be treated by me.

But there are also times when I prescribe a herbal medicine to be used together with those tablets, even though I do not know what is in those tablets, or what they are mixed with.

Some work similarly, and others are different. I do not know what is put in tablets, or perhaps in an injection but you find that it still works. There is a medicinal plant that is similar to this medicine, which has had a component extracted, and cooked in the way those things are cooked, and put into those tablets so that they are similar in action. 

[S1M]

I do see it (a relationship) in the way that they are used together... I often have an initiate arrive (for training). The ancestors tell me that this child is possessed by the ancestors. He is undergoing initiation, but in his blood there is a disease of a particular nature. Then, before I start his induction into this work, I will advise him that we should see the doctor. The doctor will examine him for me, and see how well he is. Then, if he prescribes some medication to him... I would report to the ancestors on his behalf, asking them to wait until the doctor’s medicine is completed, after which we will enter him (as an initiate). 

[S2W]

From the above it is evident that the two systems of medicine are interacting informally, and that healers are largely respectful of the role of orthodox medicine within communal health, but there does not appear to be any formal attempt to integrate practice, at least within the communities that are served by the healers interviewed.
No, my child. I would be able to reply that we are co-operating with doctors, but our co-operation is merely one of verbally agreeing with each other that we will treat people sensitively and in a similar fashion. But in terms of medicines there is not yet this (level of) co-operation between us. [N2W]

In contrast, there is no interaction between the homoeopathic system of medicine and TAM within the communities represented by the healers. The concept of treatment by similars, however, is not foreign to TAM. One isangoma [S1M] was asked whether the isiZulu proverb, ‘Iva likhishwa ngelinye iva’ [A thorn is removed by another thorn] had any relevance to the practice of medicine, to which he replied:

We use it, my brother. Even when you go to the doctors in the hospitals, they often use the painful injection to take away pains. But one allows them to use this painful injection because it is something that heals the pain. What I am describing now is exactly what is described in the proverb that a thorn is removed with another thorn. Absolutely! A thorn is indeed removed with another thorn. One pain removes another pain.

To appease something painful, if I can put it that way, you are able to use another painful thing. You can bring about appeasement because you bring about the healing of the original pain that existed. For example, you can use the application of hot water for a patient experiencing painful swelling, but this pain that you are applying ensures healing. It removes the swelling by applying another similar pain, but one that ensures healing.

(At the clinic) you will be stitched up, and in that re-experience of the painful sensation you overcome the original painful sensation. In this way, you see, it [a thorn] is removed by another because the original pain is removed. [S1M]
4.4.3 THE CONSISTENCY OF DATA

I found the data derived from interviews, as is evidenced in the discussion above, to be largely consistent, or complementary. In terms of the clinical indications of umqalothi there was some inconsistency with respect to whether or not diarrhoea was associated with the abdominal pain, although it was clear that notable diarrhoea required another medicine (isilovu) rather than Strychnos henningsii. There was also some disagreement about its inclusion for use as an enema.

In general, the understanding of umqalothi amongst izinyanga was more superficial, and centred around specific disease conditions and a pragmatic use of the medicinal substance, whereas the understanding (and use) of umqalothi amongst izangoma was more profound, less focussed around its pragmatic application in physical disease, and more focussed on the ‘magical’ and ‘intuitive’ aspects of medicinal use.

I found a final point of inconsistency within the data in the perception of the relationship between orthodoxy and TAM: whilst individual healers were able to position their respective practices in terms of the effects of orthodox medicine, collectively the traditional healers were unclear as to whether the two systems of medicine operated similarly, whether or not they were complementary or mutually exclusive, or whether they were to be integrated, and in which contexts. I failed to discern any difference, in this regard, between izinyanga and izangoma, as sub-groups.

4.5. THE RESULTS OF THE COMPARATIVE ANALYSES

The results of the homoeopathic proving, phytochemical analysis and field interviews presented above were subjected, variously, to a number of comparative analyses as described in the previous chapter [see 3.5 above].
These comparative analyses included:

1. an *NVivo®* comparison of subjective homoeopathic proving data (derived from prover journals) with data derived from field interviews [*Appendix Q(iii)*] in order to investigate the consistency of field interview data, and to explore any relationships existing between the understanding and use of the crude substance amongst traditional healers, and the proposed use of the homoeopathic potency of the substance as indicated by the triple-blind placebo-controlled proving;

2. an analysis of homoeopathic proving data (as represented by the repertory of *Strychnos henningsii* [*Appendix M*]) with reference to its relationship to the repertory data of existing remedies from the *Loganiaceae* botanical family (including the pure alkaloid, strychnine), and remedies from other botanical families, the mineral kingdom, and the animal kingdom;

3. an evaluation of the materia medica of *Strychnos henningsii* in terms of elemental theory, as incorporated into Norland’s (2003) *Mappa Mundi* concept; and

4. *post-hoc* analyses of phytochemical and interview data in terms of identified points of commonality, complementarity and difference with proving data. I will present these *post-hoc* analyses, and discuss their significance, in Chapters 5 and 6.

**4.5.1 THE *NVIVO® COMPARISON***

The *NVivo®* evaluation of field interview data derived from *izinyanga* and *izangoma* for consistency in terms of the eight areas of investigation has been discussed under section 4.4.3 above. There were high levels of consistency amongst the healers as a generic group, although certain inconsistencies were identified, and differences in their respective focus and depths of understanding and were identified between the *izinyanga* and *izangoma* sub-groups.
In comparing the interview data as a single data set \([\text{Appendix Q(ii)}]\) to the subjective proving data as a single data set \([\text{Appendix L}]\) I was able to identify a number of commonalities with reference to a range of indications of use, commonalities of sensation, and commonality and/or complementarity of theme and dynamic.

Although the areas of commonality and complementarity (and, indeed, the points of difference and differentiation) will be elaborated and discussed in Chapter 5, I was able to identify, in broad terms, the following points of overlap between the two data sets:

- abdominal pain
- nausea and vomiting
- headaches
- diabetes
- dysuria
- effects on the liver
- debility and weakness
- depressed immune function
- cramps
- perceived attack by unseen malicious forces
- confidence and perceived strength
- spiritual grounding and connection
- common sensations: aching; heat; burning; dull; hard; pulling; twisting

4.5.2 THE COMPARISON TO EXISTING REMEDIES

4.5.2.1 The Loganiaceae Botanical Family

In my initial evaluation of the 877 \textit{Strychnos henningsii} rubrics (as reflected in \textit{Appendix M}) I wished to understand the extent to which the repertory
reflected remedies from the same botanical family within these rubrics. From these results I hoped to gain insight into the following questions arising from my reflection on the proving:

1. To what extent is the new remedy able to be identified as belonging to the *Loganiaceae* botanical family, on the basis of similarity to other *Loganiaceae* remedies?
2. Which reasonably proved *Loganiaceae* remedies are most similar to *Strychnos henningsii*, and how may they be differentiated?
3. To what extent is the alkaloid, strychnine, represented in the proving of *Strychnos henningsii*?; and
4. To what extent is the repertory of *Strychnos henningsii* unique within the family group?

The results of the itemised analysis of the relationship of *Strychnos henningsii* to the *Loganiaceae* remedies, *Curare woorari* (*Strychnos toxifera*), *Gelsemium sempervirens*, *Ignatia amara*, *Nux vomica*, *Spigelia anthelmia*, *Strychninum* and *Upas tieuté* by rubric is reflected as Appendix R, and summarised below as Table 19 (overleaf).
### Table 19: Summary of Relationship of Rubrics to other Loganiaceae

<table>
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<tr>
<th>Chapter</th>
<th>Strych-H</th>
<th>Cur</th>
<th>Gels</th>
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<th>Str</th>
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\[
\text{Table 19: Summary of Relationship of Rubrics to other Loganiaceae}
\]
From the analysis, as summarised above, it was evident that 551 *Nux vomica* rubrics and 427 *Ignatia amara* rubrics were contained within the 877 rubrics of *Strychnos henningsii*. These represent 62.8 percent and 48.7 percent of *Strychnos henningsii* rubrics respectively (as indicated in *Table 19* in bold italics).

I was also very interested to note that 15.1 percent of *Strychnos henningsii* rubrics were to be found within the repertory of *Strychninum* (the pure alkaloid, strychnine). The relatively high representation of *Strychninum* in the chapters, Extremities (28.9 percent), Throat (27.8 percent), Back (27.3 percent), Head (19.7 percent), Eye and Vision (18.9 percent), Generals (18.8 percent) and Mind (17.6 percent) is of specific interest and will be discussed further in the next chapter.

In another analysis exploring the degree of *Loganiaceae* representation within *Strychnos henningsii*, I found that the remedy has 226 rubrics not found in any other member of the botanical family, and 348 rubrics (39.7 percent of total) shared by at least three other *Loganiaceae* remedies [see *Table 20* overleaf] Of these, 219 rubrics (25 percent) are reflected in four or more remedies, and 100 rubrics (11.4 percent) are reflected in five or more of the seven *Loganiaceae* remedies used in the comparison.

To me this suggests a high degree of familial relationship, particularly in view of the relatively poor quality of the provings (and consequently relatively weak representation within the repertory) of *Curare woorari* [802 rubrics] and *Upas tieuté* [427 rubrics] (Archibel S.A., 2003).
### TOTALS (by Chapter)

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<td>348</td>
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*Table 20: Summary of Strychnos henningsii / Loganiaceae Overlap*
4.5.2.2 The Cross-Kingdom Repertorisation

For the purpose of exploring relationships which may exist between *Strychnos henningsii* and existing remedies outside of the botanical family, *Loganiaceae*, I selected 50 rubrics which I believe to reasonably represent the most distinctive features of the new remedy (as far as I am able to ascertain ahead of clinical verification). This selection included a majority of Grade 2 and Grade 3 rubrics as well as eight Grade one rubrics that assume a particular prominence by virtue of their being somewhat peculiar or rare, or their encapsulating an aspect of a general manifestation of the proving or a perceived internal dynamic. The rubrics selected for cross-kingdom repertorisation, using *Radar® 9.0* were:

- **MIND**: Activity; desires activity
- **MIND**: Anxiety; fear: with
- **MIND**: Cheerful
- **MIND**: Concentration; difficult
- **MIND**: Confident
- **MIND**: Delusions; images, phantoms; sees: frightful
- **MIND**: Dullness
- **MIND**: Fear; dark
- **MIND**: Forsaken feeling
- **MIND**: Hypochondriasis
- **MIND**: Indifference
- **MIND**: Irritability
- **MIND**: Mood; agreeable
- **MIND**: Prostration
- **MIND**: Senses; acute
- **MIND**: Tranquility
- **MIND**: Weeping; cannot weep, though sad
- **HEAD**: Heaviness
- **HEAD**: Pain; Temples: right
- **HEAD**: Pain; dull pain
- **HEAD**: Skullcap; sensation of a
- **EYE**: Itching
- **EYE**: Lachrymation
- **EYE**: Pain; burning
- **NOSE**: Coryza; discharge, with
- **NOSE**: Obstruction
- **STOMACH**: Nausea
- **ABDOMEN**: Distension
- **ABDOMEN**: Liver and region of liver; complaints of
- **ABDOMEN**: Pain; cramping: umbilicus, region of
- **ABDOMEN**: Pain; drawing, umbilicus
- **RECTUM**: Flatus
- **FEMALE**: Sexual desire, increased
- **COUGH**: Dry
- **BACK**: Pain; lumbar region
- **EXTREMITIES**: Contraction of muscles and tendons
- **EXTREMITIES**: Pain; shoulder, right
- **SLEEP**: Sleeplessness; night: midnight; after
- **SLEEP**: Waking; frequent
- **DREAMS**: Pursued, being
- **SKIN**: Dry
- **GENERALS**: Morning
- **GENERALS**: Food; sweets, desire
- **GENERALS**: Heat; sensation of
- **GENERALS**: Influenza
- **GENERALS**: Motion; agg.
- **GENERALS**: Pain; sore
- **GENERALS**: Rubbing; amel.
- **GENERALS**: Sides; right
- **GENERALS**: Sluggishness of the body
After careful consideration of the results of this repertorisation (summarised in Table 21 below) I propose the following existing remedies (outside of the Loganiaceae family) to be most comparable to Strychnos henningsii, either as a totality, or in terms of particular pathological affinities:

Plant Kingdom: Belladonna, Lycopodium clavatum and Cinchona officinalis
Mineral Kingdom: Sulphur, Arsenicum album and Phosphorus
Animal Kingdom: Sepia officinalis and Calcarea carbonica

<table>
<thead>
<tr>
<th>Family or Kingdom</th>
<th>Sulph</th>
<th>Nux v</th>
<th>Ars</th>
<th>Bell</th>
<th>Phos</th>
<th>Lyc</th>
<th>Sil</th>
<th>Sep</th>
<th>Caust</th>
<th>Calc</th>
<th>Chin</th>
<th>Rhus t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Rubrics</td>
<td>46</td>
<td>45</td>
<td>43</td>
<td>43</td>
<td>42</td>
<td>42</td>
<td>41</td>
<td>41</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Repertorial Total</td>
<td>99</td>
<td>98</td>
<td>84</td>
<td>79</td>
<td>92</td>
<td>86</td>
<td>80</td>
<td>82</td>
<td>69</td>
<td>90</td>
<td>75</td>
<td>67</td>
</tr>
</tbody>
</table>

Table 21: Summary of Cross-Kingdom Repertorisation
(Archibel S.A., 2003)

Arising from my dissatisfaction with the identified remedies from the animal kingdom, I performed an additional repertorisation of the same rubric set, in which I emphasised those rubrics containing a smaller number of remedies. This repertorisation revealed the animal remedy, Crotalus cascavella which, indeed, I believe to be the most closely-related remedy from the animal kingdom.

4.5.2.3 The Mappa Mundi Comparison

I analysed the materia medica of Strychnos henningsii in terms of the four elements and four temperaments elaborated in the Mappa Mundi concept (Norland, 2003; Norland, 2007) using NVivo®. This analysis (summarised in
Figure 23 below) revealed that the predominant axis within the remedy lay between the Fire and Air elements, with a secondary axis between the Choleric and Lymphatic temperaments.

**CHOLERIC**  
*Heat and Dryness*  
*Forceful; Dynamic; Tight*  
− courageous; intolerant; > activity; irritable; explosive and shouting.  
Fear of failure; cramping and constriction;  
Affections of stomach and liver; yellow bile; bilirubin; desires spicy tastes;  
*Colour:* Orange  
*Time:* 3pm

**FIRE: Heat and Light**  
*Connection; Creation; Images of God* − the spiritual impulse and seeking God; Chanting and praying; motivation, joy, creative and confident; intuitive, passionate and joyful.  
Sensation of heat, itching, nervous hypersensitivity, affections of eyes; increased libido and energy; love for others; desires sweet tastes;  
*Colour:* Red  
*Time:* Noon

**AIR: Cold and Dark**  
*Disconnection; Destruction; Images of Death* − seeking meaning and thinking too much; indifference; alienation; fears of suffocation, falling, the dark, death, evil and ghosts.  
Sensation of coldness; numbness; dullness; shock and whimpering; affections of ears and lungs; despair and isolation; desires sour tastes  
*Colour:* Black  
*Time:* Midnight

**PHLEGMATISM:**  
*Cold and Wet*  
*Yielding; Static; Loose* − repressed; indecisive; insecure; < motion;  
fear of domination, being engulfed, losing identity  
*Colour:* Indigo  
*Time:* 3am

*Figure 23: A Summary Presentation of the Key Features of the Strychnos henningsii Materia Medica in terms of Mappa Mundi*
CHAPTER FIVE: THE DISCUSSION

5.1 INTRODUCTION

The respective data sets presented in the previous chapter represent epistemologically and ontologically diverse understandings of the medicinal plant, *Strychnos henningsii*. The subjective proving data reflect a holistic phenomenological paradigm of medical thinking and investigation that affords a central position to the healthy human subject as a sensitive instrument in the determination of the therapeutic potential of medicinal substances (Dantas, 1996; Hahnemann, 1996). The data from the interviews of traditional healers similarly reflect a highly integrated holistic paradigm of thinking that is rich in metaphor and image and seemingly devoid of the ‘scientific’ characteristics of objectivity, measurement and precision (Fennell, Lindsey, McGaw, Sparg, Stafford, Elgorashi, Grace and van Staden, 2004; Nyika, 2009). The objective proving data and the phytochemical data, in contrast, are representative of a rationalist and reductionist ‘scientific’ view which is objective, precise and intrinsically linear and deterministic (Kurtz, 2000; Andersen, 2001).

In this chapter I present my critical reflection upon two broad areas of interest related to the data sets presented in the previous chapter: the quality and characteristics of each data set in isolation, and the relationships existing between respective data sets. In so doing I endeavour to explore and extend the understanding of the epistemological and ontological character of each medical paradigm and worldview, to provide a critical reflection upon the phenomenon of homoeopathic proving methodology as a mode of scientific investigation, and to shed light upon the relationships that may exist between diverse epistemologies, ontologies and axiologies through the overt juxtaposition of related information derived from diverse data sets.
5.2 THE HOMOEOPATHIC PROVING

5.2.1 THE PROVING DESIGN

In my formulation of the proving design I was mindful of the underpinning principles of the study [see sections 3.1.2] which inter alia sought to maximise objectivity and to reduce the potential for bias. Whilst these principles are implicit within homoeopathic proving methodology, and indeed any rigorous scientific design, I incorporated the following specific elements into the design, as an explicit attempt to obviate the criticisms often levelled at homoeopathic proving design as routinely implemented:

5.2.1.1 The Triple-blind Design

In addition to the ‘standard’ double blind design in which both provers and proving supervisors are blind to the independently-determined placebo and verum allocations, I adopted a third level of blinding by ensuring that the initial case-histories and physical examinations, all interactions with provers during the course of the proving, the post-proving case-histories and physical examination, and the determination of the final materia medica and repertory of \textit{Strychnos henningsii} were conducted by four M.Tech.Hom research students who were blind to the nature of the substance being proved. This was to ensure that it could not be argued that the proving supervisors were able in some manner to influence their provers to produce or record symptoms of a particular nature (based upon their \textit{a priori} assumptions of the ‘types of symptoms’ which may arise), or that their decisions around inclusion or exclusion of data were influenced by their own prejudice and bias with respect to ‘expectation’ based upon these same assumptions. The only interaction which I, as the only person who was not blind to the identity of the proving substance, had with provers was within the context of the Pre-proving Training Workshop. This workshop was conducted within defined
parameters and included material and instructions of a defined and generic nature as reflected in section 3.2.2.4.1 and Appendices G and H.

5.2.1.2 The Objective Blood Tests

As far as I have been able to ascertain, the inclusion of parallel pathological blood testing within homoeopathic proving methodology is unique to this study. I decided to include these objective measures as a contrast to the routinely subjective character of the proving methodology. In the absence of a conclusive model for the action of ultra-dilute medicines on biological systems (as discussed in section 2.4.4), it may be argued that proving results as reflected in journals simply arise from prover expectation or the Hawthorne effect (Herscu, 2002). By incorporating an ‘objective arm’ I wished to explore the following questions arising from my review of the literature:

a) Do ultra-dilute medicines induce objective changes in healthy human subjects, as reflected in pathological blood measures?;
b) Are subjective data recorded in journals able to be verified by corresponding changes in clinically relevant blood values?;
c) Is one able to objectively demonstrate the understood-to-be self-limiting and reversible nature of homoeopathic proving methodology (Sherr, 1994; Hahnemann, 1996)?

5.2.1.3 The Independent Statistical Analysis

The results of pathological blood testing were submitted to me by a trial co-ordinator of an independent registered pathology laboratory. I captured these data in Microsoft Excel® spreadsheets and submitted these to an experienced and independent biostatistician at the Medical Research Council for analysis and determination of treatment effects. In requiring independent verification of treatment effects by a statistician experienced in clinical trials I sought to increase confidence in the statistical methodology adopted and the
conclusions reached. The biostatistician who conducted the statistical analysis was at the time familiar with the broad objectives and design of the study, but was unfamiliar with homoeopathy and had had no previous experience of proving methodology.

5.2.2 THE IMPLEMENTATION OF THE PROVING

The implementation of the proving design was surprisingly smooth and co-ordinated. I believe that this was due to a number of factors which included the commitment and motivation of the student researchers, the sense of a ‘collective’ provided by the attendance of the Pre-proving Training Workshop, my provision of ‘Supervisors’ logs’ [Appendix K] and very detailed and clear Journal Schedules [Appendix I] to supervisors and provers respectively, and the fortitude and commitment of individual provers.

The proving was commenced on a single specific date for all four prover groups [viz. 1- 8, 9-16, 17-24 and 25-32] with a ‘staggered start’ design [see section 3.2.2]. This ensured that all provers received the necessary attention at commencement of their respective proving, and also ensured that individual supervisors were required to contact no more than two provers on any one day (throughout the proving period) and therefore were able to ensure necessary contact at the required intervals, were able to instruct provers in journaling and remind provers of upcoming blood tests – which were also indicated on the cover of prover journals and on individual Pathology Request Forms [Appendix J].

Of the 32 provers who were initially recruited and attended the Pre-proving Training Workshop, 31 completed the proving. Only Prover 25 [Verum, White, Female] withdrew from the study within her pre-proving observation week (after the day three baseline blood test, but prior to administration of any test substance) due to her having developed bronchitis. She was replaced within three days of her withdrawal by Prover 25b [Verum,
Coloured, Male] (referred to in this thesis as Prover 25) who completed all aspects of the proving. All provers except one completed all the required blood tests: Prover 31 [Verum, Coloured, Male] fractured his right ankle in an accident the day before his final (day 24) blood test and therefore did not present at the required time. His blood results, and those of Prover 27 [Placebo, Indian, Female], whose day 10 blood sample had haemolysed, were excluded from the statistical analysis on the basis of being incomplete data sets [see Appendix N].

5.2.3 THE PROVER DEMOGRAPHICS

In reviewing the subjective proving data (i.e. verum prover journals) in terms of the number of proving entries and the percentage retention of entries following both intra-prover comparison (pre- and post-administration of the proving substance) and verum-to-placebo comparison, I was interested to note the relationships existing between prover demographics (in terms of ethnicity, gender and homoeopathic reference points) and prover strength (response to the test substance in terms of number and quality of journal entries).

Within this context, I was particularly interested to explore whether African ethnicity had any appreciable impact on individual sensitivity to Strychnos henningsii, and whether metaphors and themes arising within mind and dream symptomatology were ethnicity- or culture-specific. These questions arise from the more fundamental question which this study seeks to shed some light upon: Does the homoeopathic proving of an intrinsically ‘African’ substance require ‘African’ provers, or is the ‘nature’ of the substance (as expressed through proving symptomatology and metaphor) intrinsic to the substance and able to be ‘expressed’ in a prover population with no ethnic or cultural link? To what extent is proving ‘language’ culturally based?
In ranking the 16 verum provers in order of the number of proving journal entries that were retained in the final materia medica of *Strychnos henningsii* [see Table 22 below] I noted that the most sensitive prover, Prover 02, was a White female. She produced 14.8 percent of the total number of materia medica entries, with a retention rate of 88.7 percent (number of final entries as a percentage of total number of journal entries after administration of the test substance). Provers 15 and 04, who were both African females, were ranked second and third respectively, with 14.5 and 10.3 percent of materia medica entries and retention rates of 80.8 and 87.0 percent respectively.

<table>
<thead>
<tr>
<th>No.</th>
<th>Proving Entries</th>
<th>Final Entries</th>
<th>%</th>
<th>Ethnicity</th>
<th>Gender</th>
<th>Reference base</th>
</tr>
</thead>
<tbody>
<tr>
<td>02</td>
<td>97</td>
<td>86</td>
<td>88.7</td>
<td>W</td>
<td>C</td>
<td>Homoeo</td>
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<td>15</td>
<td>104</td>
<td>84</td>
<td>80.8</td>
<td>W</td>
<td>I</td>
<td>Non-Hom</td>
</tr>
<tr>
<td>04</td>
<td>69</td>
<td>60</td>
<td>87.0</td>
<td>W</td>
<td>A</td>
<td>Homoeo</td>
</tr>
<tr>
<td>09</td>
<td>102</td>
<td>55</td>
<td>53.9</td>
<td>W</td>
<td>I</td>
<td>Non-Hom</td>
</tr>
<tr>
<td>14</td>
<td>60</td>
<td>53</td>
<td>88.3</td>
<td>W</td>
<td>A</td>
<td>Non-Hom</td>
</tr>
<tr>
<td>25</td>
<td>73</td>
<td>50</td>
<td>94.3</td>
<td>W</td>
<td>I</td>
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</tr>
<tr>
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<td>47</td>
<td>79.7</td>
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<tr>
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<td>15</td>
<td>9</td>
<td>60.0</td>
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<td>I</td>
<td>Non-Hom</td>
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<td>31</td>
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<td>8</td>
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<td>7</td>
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<tr>
<td>Total</td>
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<td></td>
<td></td>
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</tbody>
</table>

**KEY:**

- **White** (*W*)
- **Coloured** (*C*)
- **Indian** (*I*)
- **African** (*A*)
- **Male** (*M*)
- **Female** (*F*)
- **With Homoeopathic Reference**
- **Without Homoeopathic Reference**
- **Homoeo**
- **Non-Hom**

**Table 22: Relationship of Prover Strength to Demographic Profile**

Comparison of prover strength (as indicated by the number of entries and retention rate) by ethnicity revealed that the African provers (representing 25 percent of the verum prover population) produced 32.0 percent of entries.
(186 of 581 entries) with an average retention rate of 85.3 percent, whereas the White provers (who represent only 18.75 percent of the prover population) also produced 32.0 percent of entries with a retention rate of 86.1 percent. By contrast the Indian provers, who represent 43.75 percent of the prover population produced 26.0 percent of entries with an average retention rate of 64.5 percent. From these calculations I would find it difficult to propose any clear and conclusive view on the impact of ethnicity on quality of symptomatology, as reflected by the number of entries and retention percentage.

<table>
<thead>
<tr>
<th>PROVER DEMOGRAPHIC</th>
<th>No. of Provers</th>
<th>% of Total Number</th>
<th>No. of Entries</th>
<th>% of Total Number</th>
<th>Retention Rate</th>
</tr>
</thead>
<tbody>
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<td><strong>Ethnicity</strong></td>
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<tr>
<td>White</td>
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<td>10.0</td>
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<td>32.0</td>
<td>85.3</td>
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<td><strong>Gender</strong></td>
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<td>69.9</td>
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<td>90.0</td>
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<td><strong>Reference</strong></td>
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</tr>
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<td>Homoeopathic</td>
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<tr>
<td>Non-Homoeopathic</td>
<td>8</td>
<td>50.00</td>
<td>194</td>
<td>33.4</td>
<td>71.0</td>
</tr>
</tbody>
</table>

Table 23: Representation and Strength by Demographic Classification

I would argue, rather, that having homoeopathic reference points has a more clear impact on the quality of proving symptomatology. Of the 16 verum provers, 50 percent [eight provers] had homoeopathic reference points and 50 percent did not. Those having homoeopathic reference points produced 66.6 percent of proving entries (with an average retention of 85.4 percent), of which six are ranked within the first eight provers. By contrast those without homoeopathic reference points produced 33.4 percent of proving entries with a retention rate of 71.0 percent. In support of this argument, I noted also that
the ‘with homoeopathic reference points’ group produced 77.1 percent of the Mind symptoms, 76.7 percent of the Dream symptoms and 63.5 percent of the General symptoms [see Table 6 in the previous chapter].

In my review of the journal entries which constitute the materia medica of Strychnos henningsii [Appendix L], I noted also that the entries that were most descriptive and rich in metaphor, and most closely aligned with descriptions received from traditional healers [see section 5.2.4 below], were typically recorded by provers within this group, rather than by provers of a particular ethnicity.

5.2.4 ANECDOTAL OBSERVATIONS

As discussed in the previous chapter [see section 4.2.5], the statistical analysis of the objective proving data, as reflected in the results of pathological blood testing, revealed statistically significant treatment effects relating to Erythrocyte sedimentation rate (ESR), Mean corpuscular volume (MCV), Mean corpuscular haemoglobin concentration (MCHC), Lymphocyte percentage, Eosinophil percentage, Basophil absolute values and percentage, Conjugated bilirubin and Alanine aminotransferase (ALT).

In my reflection upon the data recorded in Appendix N, I made two observations which, although not of statistical significance, are of anecdotal importance in terms of their relationship to the understanding of ‘a healthy human subject’, and the notions of ‘homoeopathic aggravation’ and the ‘cured symptom’:

5.2.4.1 ‘A healthy human subject’

In Chapter 2, I presented Hahnemann’s argument for the testing of medicinal effects on ‘healthy human subjects’ [see 2.4.2]. In essence the argument holds that disease is a chaotic ‘deviation’ from the healthy state, and that the
‘healthy’ subject provides a reliable base for evaluation of the pure medicinal effect. All the provers who participated in this study were subjected to a thorough case-history and physical examination prior to inclusion as a subject. Within this process they were evaluated in terms of their own subjective norms (their own sense of being ‘healthy’ and free of ‘dis-ease’) and in terms of clinically significant manifestations of disease and deemed to be ‘healthy’.

In my reflection upon the baseline values of the blood indices of these ‘healthy’ subjects I was struck by the number of subjects having abnormal baseline values. These were most notable with reference to the red blood cell indices: of the 32 provers, fourteen had abnormal haemoglobin values (reduced in twelve; elevated in two), nine had abnormal red blood cell counts (elevated in seven; reduced in two), eleven had abnormal haematocrit (reduced in ten; elevated in one), sixteen had reduced MCV, and fifteen had reduced MCHC. Since all but one of the subjects recording abnormal red blood cell values were either Indian or African (there was one Coloured male), the ‘abnormality’ was widespread between the two ethnic groupings, and most readings were marginally abnormal I believe that these abnormal readings, generally suggestive of anaemia, are largely attributable to ethnic norms which are not reconciled with Caucasian laboratory normal values. I noted a similarly widespread ‘borderline’ abnormality of globulin levels.

Of greater anecdotal significance was the finding that seven subjects had elevated ESR at baseline, and that four subjects had elevated ALT [one of whom having similarly elevated Aspartate aminotransferase (AST)]. Four of the subjects with elevated ESR at baseline recorded at least one other abnormal ESR reading over the course of the proving period.
5.2.4.2 ‘Homoeopathic aggravation’

In aphorisms 63 to 66 of *Organon*, Hahnemann (1996) describes the primary and secondary actions of medicinal substances. He describes the primary action as that effect which a medicine is able to produce through its *direct action* on the human being. The secondary action, by contrast, does not arise from the direct medicinal effect, but rather as an organismic *re-action* to the primary effect. He argues that this indirect *reaction* is exactly opposite to the primary *action*. This argument is akin to Newton’s Third Law (of motion) which similarly argues that for every action there is an equal and opposite reaction (Walker, 2007: 118), and Le Châtelier’s Principle which argues that gases in equilibrium will respond to induced change in such a manner as to oppose the effect of the change (Silberberg, 2006: 745).

On the basis of this observation, Hahnemann argues that treatment of disease by the application of an ‘opposite’ (allopathic or antipathic) medicine will produce a primary action which is counter to the disease process as a direct effect (representing an amelioration of symptoms), but that the secondary action (the organismic *reaction*) will be equal and opposite, resulting in subsequent aggravation of the original disease. He argues that, because of this reality, cure is rendered impossible, and the allopathic physician will have no alternative but to persist in the administration of the ‘opposite’ medicine indefinitely (essentially for its primary effect).

By contrast, treatment of disease by application of the ‘similar’ (homoeopathic) medicine will produce aggravation of the disease manifestation as its *primary* action (by virtue of the medicinal substance being able to induce the same disease symptoms in healthy individuals). The organismic *re-action* (secondary action) will be equal and opposite, and will therefore manifest as an amelioration of disease symptomatology in the direction of cure.
This is known within homoeopathy as ‘homoeopathic aggravation’, and is generally viewed as a desirable prognostic sign (Eizayaga, 1991). Within the context of homoeopathic provings, the phenomenon of ‘cured symptoms’ is a related demonstration of the principle: A prover who ordinarily experiences a sub-clinical or otherwise unremarkable ‘abnormal’ symptom finds that the symptom is ‘cured’ after participation in the proving. The ‘cured symptom’ is ordinarily included within the materia medica of the proving remedy, on the understanding that the evident ‘cure’ is due to the secondary action of the proving substance (the primary action being the original ‘abnormal’ symptom) (Sherr, 1994).

In my examination of the four prover subjects having elevated ESR at baseline and at least one other elevated ESR reading (of whom two received placebo and two received verum), I was interested to observe the differences in the rates and directions of change in ESR values following administration of the verum or placebo substance, as the case may have been:
Since the statistical analysis of the objective data suggests that *Strychnos henningsii* produced an elevation of ESR as a treatment (‘primary’) effect (p=0.049 total; p=0.025_{T_1-T_2}), Hahnemann’s assertion (and homoeopathic semiology) would suggest that administration of the verum to a subject having elevated ESR might result in either ‘homoeopathic’ aggravation of the elevated ESR and a ‘secondary’ amelioration in the direction of normal values or, less typically, a notable ‘secondary’ amelioration in the direction of ‘cure’ (without the ‘primary’ aggravation). One would expect no such responses in a placebo prover.

In Figure 25 (below) and Figure 26 (overleaf) I have plotted the changes in ESR values in the two verum and two placebo provers having elevated baseline ESR values at commencement of the proving (T₁) and at least one other point within the proving period in. In Prover 23 (verum) there was a notable ‘aggravation’ at T₂ [+ 71.4 percent] followed by amelioration to lower than baseline levels at T₄ [- 20.0 percent], whilst Prover 11 (verum) showed notable amelioration across T₂ and T₃, with a slight elevation again at T₄, although to less than T₁ and T₂ values [- 28.8 percent on the T₁ value].
No such changes were evident within the profile plots of either of the placebo provers. Prover 17 showed no notable change in ESR throughout the proving, and Prover 24 showed a decrease towards the upper level of the normal range at T₂ and T₃ [-31.8 and -27.3 percent respectively], returning towards the baseline level at T₄ [-9.1 percent on the T₁ value].

![Abnormal ESR - Placebo Subjects](image)

**Figure 26: The changes in Abnormal Erythrocyte Sedimentation Rate (ESR) levels in Placebo Subjects**

A similar investigation of abnormal values in the four provers having elevated ALT values at baseline (T₁) [Figure 27] revealed a striking demonstration of homoeopathic aggravation and ‘cure’ in the verum subjects. The statistical analysis of objective proving data revealed that **Strychnos henningsii 30CH** produced a statistically significant elevation of ALT levels as a primary (‘treatment’) effect (p=0.041_{T₁–T₃}). One would therefore expect verum subjects who have elevated ALT at baseline to evidence an ‘aggravation’ of their ‘disease symptom’ [elevated ALT] after administration of the verum, followed by notable amelioration towards normal values (‘cure’).

In both Provers 1 and 11 there was a notable increase in T₂ and T₃ values followed by amelioration to lower-than-baseline values. In the case of prover
1 the T₄ value was within the normal range ('cured'), whilst Prover 11 had a T₄ value which was 56 percent of the baseline value and only slightly [14.3 percent] above the normal range. The profile plots of the placebo subjects (Provers 8 and 27) showed no such tendency.

**Figure 27: A comparison of changes in Abnormal Alanine Aminotransferase (ALT) levels in Verum and Placebo Subjects**

Prover 11 (verum), in addition to elevated baseline ALT levels, also evidenced elevated baseline AST levels which similarly showed notable aggravation and amelioration following administration of the verum. This
observation is noteworthy because the statistical analysis did not indicate statistically significant elevation of AST as a ‘treatment effect’ of *Strychnos henningsii*, although the profile plots do suggest a trend towards elevation in the verum group [Appendix O]. I believe that this prover’s response to the verum, which is consistent with homoeopathic semiology and the previously discussed ESR and ALT responses, suggests that *Strychnos henningsii* indeed may be argued to produce an elevation of AST as a primary effect (albeit not of demonstrable statistical significance within the context of this study).

![Abnormal AST - Verum Subject](image)

*Figure 28: The changes in Abnormal Aspartate Aminotransferase (AST) levels in Prover 11 [Verum Subject]*

5.2.5 THE RELATIONSHIP BETWEEN SUBJECTIVE AND OBJECTIVE DATA

The statistical analysis of the objective data suggested nine significant treatment effects that I have described previously in section 4.2.5 and listed under section 5.2.4 above. Whilst the changes in red blood cell indices (*viz.* MCV and MCHC) are not easily correlated with specific and exclusive clinical symptomatology, the elevation of ESR, and the changes in the white cell
indices (increased eosinophils and basophils) are indicators of mild inflammatory and infective processes (ESR and increased lymphocyte percentage) and broadly ‘allergic’ disease manifestations (eosinophilia and basophilia). The decrease in bilirubin conjugation, with elevation of ALT (albeit at levels in excess of those recorded in the proving), are clinically suggestive of liver toxicity.

The objective proving data therefore suggested, assuming a correlation between subjective and objective data, that the proving symptomatology should include symptoms of a mildly inflammatory nature, symptoms associated with infective processes and a range of allergic phenomena, and symptoms associated with liver dysfunction. Furthermore, a reflection on the profile plots and points of significance relative to each of the nine significant indices suggested that the inflammatory, infective and allergic symptomatology should be more prominent at the onset of the proving [related to significant $T_2 - T_1$, $T_3 - T_1$ and $T_3 - T_2$ p-values], and that the evidence of liver dysfunction should assume increasing prominence as the proving progresses [related to significant $T_3 - T_1$ p-values]. Most proving symptomatology should decrease within the day ten to day 24 period and few proving symptoms should be recorded beyond day 24 [reflected by the absence of any significant $T_4 - T_1$ p-values].

The subjective data did indeed include dryness and itching of the eyes [Prover 1: day 3; Prover 9: day 6; Prover 25: day 3; Prover 28: day 2], itching of the ears [Prover 2: day 6; Prover 20: day 5], and dry scratchiness of the throat [Prover 20: day 5] and asthmatic respiration [Prover 9: day 3; Prover 20: day 3] as early symptoms. Although nausea was recorded throughout the proving, the more overt symptoms of ‘liverishness’ arise from day 5 of the proving [Prover 2: day 5 onward; Prover 4: day 5 onward]. The profound exhaustion and prostration [Prover 9: day 23; Prover 25: day 23] with feelings of being ‘like some sort of sick person’ [Prover 9: day 25].
which are typically associated with liver dysfunction were more noticeable after day 10 of the proving.

In my evaluation of the correlation of subjective and objective proving data I not only evaluated the two data sets as collective entities, but also evaluated each verum prover’s journal against their own set of blood results. Whilst I noted a good correlation between the symptomatological evolution within the proving and statistically significant changes in blood indices in the collective view (as indicated above), I was unable to identify clear correlations between journal entries and changes in blood indices at the individual level for all verum provers (e.g. Prover 2 recorded many symptoms of liver dysfunction without any noteworthy change in liver function indices). I understand this to be related to the relative sensitivity of individual provers, according to which relatively insensitive provers will produce few symptoms of poor or uncharacteristic quality without corresponding objective changes, and very sensitive provers will produce a higher number of clearly-described and characteristic symptoms with clear objective correlates.

Notwithstanding the observation that not all provers produced respective objective correlates for the relevant subjective journal entries, I was able, to identify a number of very striking parallels of subjective and objective data amongst individual provers. These included the allergic symptomatology of Provers 9 and 20, and the symptoms suggestive of liver dysfunction of Provers 1, 4 and 14.

5.2.5.1 Provers 9 and 20

Both Provers 9 and 20 had elevated (> 0.4 x 10^9/ℓ) absolute Eosinophil levels at their baseline readings. Prover 9’s eosinophil count was stable at 0.72 x 10^9/ℓ between baseline and day 3 of the proving, after which it showed a gradual decrease to 0.61 x 10^9/ℓ on day 24. In contrast, Prover 20 had eosinophil count of 0.6 x 10^9/ℓ at baseline that spiked to 0.84 x 10^9/ℓ on day 3,
after which it gradually decreased to $0.67 \times 10^9/\ell$ on day 24. The respective profile plots are reflected in Figure 29.

**Figure 29: The changes in Abnormal Eosinophil Absolute values in Provers 9 and 20 [Verum Subjects]**

While the increase in the eosinophil count between baseline and day 3 of Prover 20 [+ 40.0 percent] would suggest a notable increase in allergic symptoms in this prover, no such increase would be expected in Prover 9, whose eosinophil count showed a gradual decrease over the course of the proving [- 15.3 percent on the T₁ value]. In this respect I was interested to note that Prover 9, although producing the fourth-highest number of final proving entries [55 entries], produced the lowest final retention rate of 53.9 percent. My investigation of the retention rate of this prover’s journal entries following administration of the verum, when compared to pre-proving observation period entries, indicated a retention rate of 63.7 percent, with 37 of the 102 post-administration entries having a pre-proving observation counterpart. Of these 37 excluded entries, 23 [62.2 percent] related to allergic symptomatology. This lack of definition between pre- and post-administration subjective allergic symptomatology correlates well with the Prover 9 eosinophil profile plot.
By contrast Prover 20, who produced the ninth-highest number of final journal entries, indicated a retention rate of 89.2 [see Table 5], with none of the four excluded entries relating to allergic symptomatology.

Prover 9 however did produce a clear increase in basophil count from a baseline level of $0.06 \times 10^9/\ell$ (normal) to a day 3 level of $0.11 \times 10^9/\ell$ (abnormal) [+ 83.3 percent]. This abnormally elevated basophil count was seen to return to normal levels by day 10 [$0.04 \times 10^9/\ell$]. Prover 20 produced no notable changes in basophil counts over the proving period.

![Basophils Graph](image)

**Figure 30: The changes in Basophil Absolute values in Provers 9 and 20 [Verum Subjects]**

The final journal entries of both Prover 9 and Prover 20 reflect allergic symptomatology. The entries of Prover 20 (in whom there was a 40.0 percent increase in eosinophil count on day 3, and no notable change in basophil count) reflect overtly allergic symptomatology commencing with asthmatic respiration, shortness of breath and increased mucus on day 3, and developing into irritation and itching in the ears and upper respiratory tract and notable nasal discharge between days 5 and 9. There were no allergic symptoms recorded after day 10.
<table>
<thead>
<tr>
<th>Day</th>
<th>Corresponding Journal Entries</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>On waking (I) was short of breath. (My) chest felt heavier with more mucus secretion than what I previously woke up with.</td>
</tr>
<tr>
<td>5</td>
<td>At about 17h00, (I) felt my ears itching and a post nasal drip coming on. By 19h00 swallowing was painful. (I) had a sore throat. It was red and felt raw. By the time I went to bed around 23h00 it got worse.</td>
</tr>
<tr>
<td>6</td>
<td>Woke up at 03h30am (with) throat very rough like sand or grainy. I couldn’t swallow. (It was) very painful. When I finally woke up at 08h00, (my) throat and ears (were) still painful. It felt a bit better during the day but got worse again at 17h00.</td>
</tr>
<tr>
<td>7</td>
<td>My nose is extremely runny with thick, yellow mucus. Chest feels tighter with a dry cough.</td>
</tr>
<tr>
<td>8</td>
<td>Woke up with a very tight chest. Because my throat was itchy, I had the urge to cough. After taking a shower, the sensation in my throat subsided, but I still continued coughing. My throat felt like it was bruised. The cough continued throughout the day – a dry cough – but I feel it (as) heavy. Cough got worse at bedtime. I hear the wheezing sound and have to take deeper breaths. My nose was extremely runny, with very thick mucus. (I had) difficulty in cleaning nose because mucus was too thick. Yuck!</td>
</tr>
<tr>
<td>9</td>
<td>Feel asthmatic especially in the morning. Still very mucous. Coughing up phlegm and (have a) runny nose.</td>
</tr>
<tr>
<td>10</td>
<td>(I am) only asthmatic when I wake up.</td>
</tr>
</tbody>
</table>

Table 24: The Prover 20 Journal Entries related to Allergy

Prover 9 (in whom there was a notable increase in basophil count on day 3, and no notable change in eosinophil count) similarly recorded tightness of the chest on day 3. There was no corresponding increase in mucus production, although there was evidence of irritation of the eyes and the mucosa of the upper respiratory tract. I was interested to note that journal entries relating to restriction of respiration corresponded with relative increases in basophil counts, which were seen to occur at day 3 and day 24, and that the focus on other allergic symptomatology more typical of eosinophilia assumed prominence as the basophil count reverted to normal levels. Unfortunately
the experimental design did not allow for measurement of a basophil count to relate to the day 26 journal entry.

<table>
<thead>
<tr>
<th>Day</th>
<th>Corresponding Journal Entries</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>(My) chest is heavy and tight. (The) respiratory area feels as if it is restricting when I laugh or take a deep breath.</td>
</tr>
<tr>
<td>6</td>
<td>Eyes felt dry and itchy. Had a tight chest in the morning.</td>
</tr>
<tr>
<td>7</td>
<td>Developing flu-like systems again.</td>
</tr>
<tr>
<td>12</td>
<td>Have a scratchy throat in the morning. (It’s) not sore.</td>
</tr>
<tr>
<td>13</td>
<td>Eyes are watery. (I) have a weird throbbing sensation in upper right eyelid area. At the same time (as above sensation) I sneeze a lot. (The) sensation keeps coming and going (It’s) a little painful. Towards the evening (my) nose feels itchy.</td>
</tr>
<tr>
<td>15</td>
<td>(I) sneeze a lot in the evening.</td>
</tr>
<tr>
<td>26</td>
<td>(My) breathing is a bit heavy in the evening.</td>
</tr>
</tbody>
</table>

Table 25: The Prover 9 Journal Entries related to Allergy

5.2.5.2 Provers 1, 4 and 14

The comparison of subjective and objective proving data of Prover 1 yielded a particularly noteworthy opportunity for reflection on the notion of ‘placebo effect’ and prover expectation. This verum prover recorded in her journal on three separate occasions that she was convinced that she was on placebo. These recordings were made on days 1, 4 and 21 of the proving. On day 5 she recorded an increase in offensive burping, which progressed to a sense that a hamster had died in her stomach on day 13, and profound prostration, irritability and aversion to company on day 20. Comparison to the prover’s profile plots of ALT and AST revealed that both liver enzyme levels had increased to abnormally high levels by day 3 \( [ALT: + 62.9 \text{ percent on the } T_1 \text{ value}] \), and that the AST level had continued to increase until day 10 \(+ 48.3 \text{ percent on the } T_1 \text{ value}] \). Both levels had returned to within normal limits by day 24.
The prover’s journaling on days 5, 13 and day 20 corresponds to the elevated ALT and AST levels recorded in the objective blood tests. What I find particularly noteworthy, however, is the disjuncture between her erroneous conviction that she was ‘on placebo’ and objective indications of increasing liver dysfunction. This relationship was in direct contrast to my anticipation of a ‘placebo’ proving response: that a placebo prover would record subjective ‘symptoms’ in response to an expectation that symptoms ought to be produced, without any corresponding objective change.

![ALT and AST Profiles - Verum Prover 1](image)

<table>
<thead>
<tr>
<th>Day</th>
<th>Corresponding Journal Entries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I am convinced that I have the placebo.</td>
</tr>
<tr>
<td>4</td>
<td>I have the placebo.</td>
</tr>
<tr>
<td>5</td>
<td>Eructations increased and smelly.</td>
</tr>
<tr>
<td>13</td>
<td>Feels like a hamster has crawled into my throat and died in my tummy and now I am burping dead hamster!!! [unusual].</td>
</tr>
<tr>
<td>20</td>
<td>I was so tired I could hardly focus on what I was thinking. Wanted to go home and sleep the whole day; hot, bothered, foggy, irritated, just want to be at home, alone and quiet!</td>
</tr>
<tr>
<td>21</td>
<td>If I am on the proving substance I am the worst prover ever!!!</td>
</tr>
</tbody>
</table>

**Figure 31: The correspondence of Subjective and Objective Data suggestive of Liver Dysfunction [Prover 1]**
Increased feeling of nausea.

Was very energetic and excited. Increased tiredness!

Very tired! Felt nauseous after eating KFC. My stool is darker, almost black.

(I have) decreased appetite! Decreased energy! Was tired the whole day. Increased energy at night!

(My) stool colour is black.

Can’t concentrate!

I am very tired today. I am yawning a lot and I am very sleepy. Very tired, constantly yawning.

So tired! Constantly yawning! Very tired!!!!

Throbbing headache in forehead and eyes. Occipital area and neck [back] stiff and painful. (I) feel nauseous and dizzy. Headache is killing me!!!

My eyes look a bit yellow.

**Figure 32: The correspondence of Subjective and Objective Data related to increased Aspartate Aminotransferase [Prover 4]**

The AST profile plot of Prover 4 [Figure 32 above] and the ALT profile plot of Prover 14 [Figure 33 overleaf] showed similar increases (AST: + 52.4
percent on the T₁ value; ALT: + 33.3 percent on the T₁ value) to those of Prover 1 on day 10, with a similar return to around-baseline levels on day 24.

![ALT Profile - Verum Prover 14](image)

<table>
<thead>
<tr>
<th>Day</th>
<th>Corresponding Journal Entries</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Stools (are) more frequent than normal i.e. from once daily to three times daily, but no pain and properly formed.</td>
</tr>
<tr>
<td>10</td>
<td>Woke up very tired. Tummy was sore this morning after I ate yoghurt and seeds and apple for breakfast. The pain is crampy. (It) was also sore after last night’s rich curry. Energy levels (are) very low.</td>
</tr>
<tr>
<td>13</td>
<td>Getting very annoyed about my hands smelling of food after cooking or eating. I wash them a few times.</td>
</tr>
<tr>
<td>14</td>
<td>Energy levels at an all time low. I really don’t remember when last I was so tired.</td>
</tr>
<tr>
<td>21</td>
<td>No energy whatsoever. (I) went to a friend’s place for a party, but had to leave early because I was so tired.</td>
</tr>
<tr>
<td>24</td>
<td>My tummy (is) still sore from sweet food (with) very low level nausea; &gt; if I go to the loo; &gt; eating a proper meal.</td>
</tr>
</tbody>
</table>

**Figure 33: The correspondence of Subjective and Objective Data related to increased Alanine Aminotransferase [Prover 14]**
Although the Prover 4 journal [Figure 32] reflected a feeling of nausea as a day 1 symptom, the evolution of overt symptoms of liver dysfunction followed the course suggested by the change in AST levels, starting late on day 4 and evolving progressively towards the day 20 observation of the eyes appearing ‘a bit yellow’. The Prover 14 journal [Figure 33], in a similar correlation with the ALT profile plot, reflected increased frequency of formed stool as an early sign of possible liver dysfunction on day 8, the evolution to a more definitive peak of extreme prostration and persistent olfactory hypersensitivity on day 14, and a decrease to a less definitive ‘very low-level nausea’ on day 24.

5.3 THE RELATIONSHIP OF THE PROVING TO THE PHYTOCHEMISTRY

5.3.1 THE PHARMACOLOGY AND TOXICOLOGY OF STRYCHNINE AND STRYCHNOS ALKALOIDS

The phytochemical analysis of the Strychnos henningsii bark sample used in the preparation of the Strychnos henningsii 30CH confirmed the presence of between two and five strychnine-related compounds having molecular weights of either 370.1893 or 352.1787. Due to the nature of the HPLC-MS methodology employed it was not possible to identify the specific compounds at each MW. The determination of the presence of these compounds within the bark was therefore confirmed as being splendoline and/or 23-hydroxyspermostrychnine-N-oxide and/or 17, 23-dihydroxyspermostrychnine (having MWs of 370.1893) and henningsiine and/or cyclostrychnine (having MWs of 352.1787). Furthermore, these compounds, whether they be a single compound or a combination of compounds of a specific MW, were found to be present only in trace amounts of between 0.94ppm (MW 352.1787) and 1.24ppm (MW 370.1893). The presence of strychnine within the bark sample was unable to be confirmed.
In view of the lack of clarity around the identity of the specific indole alkaloids present within the bark, the lack of clearly documented pharmacological and toxicological data related to each of the specific strychnine-like compounds (had it been possible to confirm the identity of specific alkaloids), and the significant literature in support of an evident overlap of pharmacology and toxicology between strychnine and other strychnine-like alkaloids (Braestrup and Nielsen, 1980; Bagust et al., 1981; Frédéric et al., 1999; Jensen et al., 2006), I have assumed, for purposes of argument and comparison, that the pharmacological and toxicological features of *Strychnos henningsii* bark (as these relate to the identified indole alkaloids) are analogous to those of the genus-defining and well-characterised reference alkaloid, strychnine.

As discussed in section 2.5.4.1, the pharmacological effects of strychnine are understood to derive predominantly from its action as an antagonist of glycine-receptors within the gated ion channels of post-synaptic motor neurons (Bagust et al., 1981; Kehne et al., 1981; Burn et al., 1989; O'Neill and Bolger, 1990). This action accounts for *inter alia* the characteristic hyper-excitability of the central nervous system evidenced by muscular twitching, cramping, restlessness, apprehension, hyperacuity of perception, hyperreflexia and convulsions that have been documented within the toxicology (Dittrich et al., 1984).

The toxicology of strychnine, as previously described, also includes tonic contractions similar to those of tetanus, pain due to muscular spasm and death as a result of asphyxia (Dittrich et al., 1984). Systemic effects following ingestion of the poisonous alkaloid include hyperthermia, profound lactic acidosis, rhabdomyolysis (Boyd et al., 1983), tachycardia, hypertension, a poorly-detected pulse, increased gastric secretion and vomiting, ocular bulging, nystagmus, pupillary dilation, hypokalaemia, dehydration with increased thirst, and cold perspiration (International Programme on Chemical Safety). Leukocytosis and elevations of serum glutamate oxaloacetate transaminase, creatine phosphokinase and lactate dehydrogenase were
reported in a non-fatal case of strychnine poisoning (Nishiyama and Nagase, 1995). A number of strychnine-related compounds have demonstrated activity against *Plasmodium falciparum* strains (Frédérich et al., 1999; Philippe et al., 2005), but this activity has not been demonstrated for strychnine itself, nor for any of the candidate alkaloids identified to be within the *Strychnos henningsii* bark sample used in this study [see section 2.5.4.1].

5.3.2 THE MATERIA MEDICA OF *STRYCHNINUM*

Homoeopathic potencies of the pure alkaloid, strychnine, are used within the scope of homoeopathic practice under the name, *Strychninum (purum)*. Whilst one might logically assume that the use of *Strychninum* in homoeopathy would be based upon a proving such as was conducted in this study, in which microdoses are administered to healthy individuals, my investigation of the experimentation upon which the materia medica of *Strychninum* is based revealed that the homoeopathic materia medica is based almost entirely on 161 published toxicological reports (Archibel S.A., 2002). These reports span a 55-year period between 1823 and 1878 and include publications in noted medical journals such as *Lancet*, the *American Journal of Medical Science* and the *British Medical Journal* as well as a range of homoeopathic and pharmacological journals. All the reports relate to the pharmacological and toxicological effects of ponderal doses of strychnine or, in a single report, strychnine sulphate.

A controlled experiment by Robinson, recorded in the Monthly Homoeopathic Review of 1868 (Volume 12), is the closest any of these records come to a ‘proving’, in the sense of a controlled experiment having the specific intention of eliciting and recording changes induced in healthy individuals by administration of a pharmacological substance (Vermeulen, 2004). The experiment was conducted on two healthy individuals (one of each gender) using increasing doses (10 to 15 drops) of a preparation of ‘liquor strychniae’, two to four times daily for seven days. This was followed by relatively larger
doses (60 drops) administered to only the male subject three or four times daily for 15 days (Archibel S.A., 2002).

The homoeopathic materia medica, as a compilation of 161 published reports on the pharmacological and toxicological effects of crude strychnine and more than a century of observations incidental to the application of microdoses in treatment, may therefore be understood to incorporate all the broad pharmacological and toxicological symptomatology described in section 5.3.1 above, as well as the following more specifically-defined symptomatology:

5.3.2.1 The Mind

- **Resentment against one’s fate**, or a persistent sense of unfairness or inequity. A feeling of restriction or of being trapped, of being stuck in one’s fate with no possible way out, giving rise to discontent (Vermeulen, 2004);

- **Attacks of panic and fear**, presenting as a fear of death, insanity or some terrible disease, in addition to a fear of the dark and of being alone in the dark (Morrison, 1993; Vermeulen, 2004);

- **Extreme nervous excitability and hypersensitivity** to certain impressions on the psychic plane: a sense of the existence of psychic entities, especially those of a malevolent nature, leading to terror (Morrison, 1993). “They fear psychic attack, and this fear is expressed either directly or as a fear of the dark, especially of being alone in the dark. There is, however no fear of ghosts. The subjects do not see things in the sense of being clairvoyant or clairaudient. They pick up physical energies through their nervous system, they sense something in the room, something which they often cannot articulate, but which terrifies them” (Vermeulen, 2004: 1299).
5.3.2.2 General Symptoms

- **Hypersensitivity** to drafts of air (Vermeulen, 2004);
- **Spasms** and **Cramping pains**, aggravated by the least touch, sound or odour (Vermeulen, 1994);
- **Twitching** here and there, aggravated by touch (Vermeulen, 2004);
- **Chorea** (Vermeulen, 2004);
- **Increased sexual desire** in women (Vermeulen, 1994);
- **Feelings of enlargement** of the head and face (Vermeulen, 2004);
- **Sudden pains** and sensations that **return at intervals** (Vermeulen, 1994);
- **Stiffness** - particularly rheumatism with stiff joints (Vermeulen, 1994);
- **Headache** with a sensation of a skullcap (Morrison, 1993), and **drowsiness** (Vermeulen, 2004);
- **Sneezing** with **itching** in the nose (Vermeulen, 1994);
- **Itching** of scalp (Vermeulen, 1994);
- **Choking** sensation with dyspnoea (Vermeulen, 1994);
- **Persistent cough** with a strong spasmodic or asthmatic element (Morrison, 1993);
- **Icy sensation** down the spine (Vermeulen, 1994);
- Aggravated by **touch, noise, motion, exertion, walking, after meals** and **in the morning** (Vermeulen, 2004);
- Ameliorated by **lying on one’s back** (Vermeulen, 2004).

5.3.3 THE REPRESENTATION WITHIN THE PROVING DATA

5.3.3.1 The Materia Medica Comparison

In my comparison of the materia medica of *Strychnos henningsii* [Appendix L] to the pharmacological and toxicological effects of crude strychnine, as described in sections 5.3.1, 5.3.2.1 and 5.3.2.2 above, I was able to identify a
notable number of similarities between symptomatology induced in healthy subjects by a homoeopathic potency of *Strychnos henningsii* bark and those symptoms associated with intoxication (sub-toxically or fatally) by strychnine. These similarities relate to the mind, a range of physical effects and general sensitivities and reactions.

**5.3.3.1.1 The Mental Symptoms**

The materia medica of *Strychnos henningsii* includes a number of symptoms that may be associated with the stimulation of the central nervous system that is characteristic of strychnine. These include hyperacuity of the senses [Provers 2, 4 and 14], mental alertness [Prover 4, 25 and 30], anxiety and restlessness [Provers 2, 4, 14, 15 and 30], irritability [Provers 1, 2, 4, 6, 9, 14, 15, 18, 20 and 25] and immoderate emotional responses [Provers 15 and 23].

In addition, all of the characteristic strychnine mind symptoms described in section 5.3.2.1 were manifest within the Mind and Dream sections of the materia medica. These include feelings of restriction, inequity and discontent arising from being ‘stuck’; panic and fear of some terrible disease (manifest as hypochondriasis [Prover 15], the dark or of being alone; and a paranoid fear of attack by unseen malevolent forces. Of some significance too is the repeated reference to choking, suffocation and exhaustion (which are associated with the terminal stages of strychnine intoxication) within these descriptions:

...(I) felt like (I) had too many expectations on my shoulders and when I vented it out to mum, it came down to my research and feeling completely on my own and that no one can help me and no one understands!!! Nothing is working and I feel trapped. Taking so much of my energy and effort and emotions!!! I am exhausted. Tired physically and emotionally. [Prover 2: day 11]
Supposed to be excited about the long weekend but I’m just tense and worried because I feel I should be working. [Prover 14: day 12]

At night I was lying on the bed facing the wall when I heard a man’s footsteps in the room [I do not know why I felt it was a man, I think it was the heaviness of the steps]. I was a bit surprised but not afraid at first because I thought it was my friend’s husband. But the steps seemed to stop next to my bed and then I heard heavy breathing. I was becoming more and more afraid as I realised that someone was standing behind me just breathing heavily. I turned around and there was no one there!!! I was terrified and confused because it was so real. [Prover 6: day 1]

In the evening I felt very anxious and fearful before going to bed. I found it hard to go to sleep, slept with lights on. Kept thinking I heard or saw something out of the corner of my eye. [Prover 6: day 2]

Woke up in such fear, had a terrible nightmare! Dreamt that I was dreaming that my fiancé tried to kill me [choked me]...One of the voices sounded like my dead sister and couldn’t recognise the other one. They sounded like they were outside, but I heard the voices and footsteps coming closer to me and I heard them in my room, but then they got closer to my bed and was jumping into bed with me. I got scared, prayed and woke up in first dream, but remained in the other! Then felt like my blanket was suffocating me. It was as if someone was deliberately holding the blanket tight on my head. I finally woke up and ran to my housemate’s room. Slept there, but soon was back in the nightmare. Continuously dreamt that someone was suffocating me. Kept waking up to realise that I was still sleeping. Continued to dream that I was dreaming that someone [couldn’t see anyone, just a voice] was there...He kept forcing me
to speak, he kept grabbing me by my left lower ribs, tried to fight him, but he was too strong. Finally woke up completely, and fought to stay awake. Afraid that if I sleep again, I won’t wake up!!![Prover 4: day 22]

5.3.3.1.2  The General Symptoms

In my examination of the materia medica of *Strychnos henningsii*, I was able to identify a number of elements within the physical symptomatology that bore close relationship to the documented effects of strychnine. These included *inter alia* the characteristics of the headaches (regardless of type), the manifestation of mucosal irritation, various effects within the musculoskeletal system and digestive tract, the effects on the respiratory system and changes in environmental sensitivity.

As described in section 4.2.3.3, the proving produced a range of headaches that were localised to the temples, the forehead, the occiput and the parietal regions. Generalisable features of all the *Strychnos henningsii* headaches, regardless of localisation, were the sensation of throbbing (not characteristic of strychnine) [*Provers 3, 4 and 15*] and aggravation from motion (associated with strychnine) [*Provers 4, 6, and 15*]. Although not exclusive, the majority of those provers recording headaches recorded these in the morning, and on waking (which are characteristic of strychnine) [*Provers 1, 4, 11, 15 and 30*]. Of some interest also are one prover’s association of the onset of her headache with exposure to wind [*‘hypersensitivity to drafts of air’* (Vermeulen, 2004: 1299)][Prover 30] and two provers’ sensation of wearing a skullcap [*Provers 1 and 4*].

Evidence of the spasmodic and cramping effect of strychnine was found throughout the materia medica of *Strychnos henningsii*. In the musculoskeletal system this presented as cramps in the trapezius and deltoid muscles [*Provers 2, 11 and 14*], the forearm [*Prover 25*], and tremors in the
hands [Prover 4]. There was also notable muscular stiffness in the neck, shoulders, buttocks, thighs and calves [Provers 2, 11 and 14] and pains in the joints of the upper limb (shoulder, elbow and wrist) [Prover 1, 15 and 25]. These joint pains were typically worse on waking, and the muscular pains worse for touch and movement (consistent with the effects of strychnine). Spasmodic contraction of striate muscle was also evidenced in one prover’s twitching of an eyelid [Prover 15], hiccoughs occurring in two provers [Provers 1 and 2] and severe and painful contractions of the uterus during menstruation [Prover 11].

The materia medica also includes notable spasm in the throat and respiratory system, manifest as tightness of the chest [Provers 9, 14, 15, 20 and 25], asthmatic respiration [Provers 9 and 20], difficulty swallowing [Provers 2, 9 and 20], a sensation of a lump in the throat [Prover 15] and persistent dry cough [Provers 9, 20 and 25]. I also noted cramping in the abdomen [Provers 2, 4, 11, 14 and 15], a tendency to constipation [Provers 2, 9 and 20], and aggravation after eating [Provers 2, 14 and 15] as able to be related to strychnine.

Other general symptomatology suggestive of the effects of strychnine includes itching of the scalp [Provers 1, 14 and 25], sneezing and itching in the nose [Provers 2, 9, 11 and 15], increased libido [Provers 1, 14 and 15], hyperthermia [Provers 2, 4 and 9], increased thirst [Provers 4, 25 and 31], palpitations [Provers 1, 4 and 31] and coldness of the extremities and skin [Provers 1 and 2].

5.3.3.1.3 The Unrepresented Symptoms

Although I was able to associate a considerable amount of mental and general symptomatology of Strychnos henningsii with the effects of strychnine, there were a number of documented effects that were either absent within the proving symptomatology or not recorded because of the
scope and limitations of the study. These effects included ocular bulging, nystagmus and pupillary dilation, hypertension and poorly-detected pulse (International Programme on Chemical Safety), a feeling of enlargement of the head and face (Vermeulen, 2004: 1299), an icy sensation down the spine (Vermeulen, 1994: 1536), and a number of changes in blood indices that were either not found to be statistically significant or not measured within this study viz. hypokalaemia (International Programme on Chemical Safety), lactic acidosis, leukocytosis [not found to be statistically significant], and elevations of serum glutamate oxaloacetate transaminase, creatine phosphokinase and lactate dehydrogenase (Nishiyama and Nagase, 1995).

5.3.3.2 The Repertorial Comparison

In my comparison of the repertory of *Strychnos henningsii* to those of other members of the *Loganiaceae* family [see section 4.5.2.1] I noted that 15.1 percent of *Strychnos henningsii* rubrics were to be found within the repertory of *Strychninum*. I also noted that those chapters in which representation of *Strychninum* was highest, viz. Extremities (28.9 percent), Throat (27.8 percent), Back (27.3 percent), Head (19.7 percent), Eye and Vision (18.9 percent), Generals (18.8 percent) and Mind (17.6 percent), corresponded to those in which a large number of characteristic *Strychnos henningsii* rubrics were to be found. This suggested to me a more than coincidental relationship, which I sought to challenge by repeating the comparison against the unrelated alkaloid, *Atropinum* (atropine or atropine sulphate) which has similarly been incorporated into homoeopathy through toxicology, and is characteristic of the unrelated botanical family *Solanaceae*. 
<table>
<thead>
<tr>
<th>Condition</th>
<th>Atropinum</th>
<th>Strychnos henningsii</th>
<th>Strychninum</th>
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<tr>
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Table 26: The Relative Representation of Strychninum and Atropinum within the Repertory of Strychnos henningsii (Archibel S.A., 2003)
The side-by-side comparison of the representation of *Strychninum* and *Atropinum* rubrics within the repertory of *Strychnos henningsii* revealed that *Strychninum* is indeed better represented than *Atropinum* (15.1 percent against 10.9 percent). Comparison by chapter further revealed that *Strychninum* was better represented in 15 chapters, as opposed to six chapters in which *Atropinum* was better represented. The alkaloids were equally represented in the chapter, Vertigo (one rubric each), and five chapters had no rubrics common to either alkaloid.

Forty-nine *Strychnos henningsii* rubrics (5.6 percent of the total) are common to both *Strychninum* and *Atropinum*. These rubrics are predictably of a somewhat generic nature, and are not characteristic of *Strychnos henningsii* or either of the alkaloids. The percentage of *Strychnos henningsii* rubrics that are, in the context of this comparison, exclusively related to *Strychninum* is therefore 9.5 percent as opposed to the 5.3 percent of symptoms being exclusively related to *Atropinum*.

I would argue, on the basis of the evident representation of strychnine within the materia medica of *Strychnos henningsii*, as described in 5.3.3.1 above and as reflected in the two repertorial comparisons described in Table 26, that the data derived from this homoeopathic proving reflects elements of the pharmacology and toxicology of constituent active substances sufficient to allow for identification of the well-described and characteristic alkaloid, if not the specifically-related chemical compounds, i.e. sufficient to propose that the crude substance contains strychnine or strychnine-related compounds, but not sufficient to identify the specific strychnine-related compound (e.g. splendidoline, henningsiine or 17-hydroxyspermostrychnine-N-oxide).
5.4 THE TRADITION OF USE OF STRYCHNOS HENNINGSII

The data derived from the field interviews of four izinyanga and four izangoma represents a unique ethnographic representation of the paradigmatic view, ontological framework and current practice of a discretely defined group of traditional healers. As such I found the information to be extremely rich, descriptive, enlightening and unexpectedly unrestrained. I believe that the quality of the data was directly affected by the considerations and efforts discussed under section 3.4.1.3, as well as the prior training of the interviewer in homoeopathic case taking, which is in effect a highly evolved open-ended questioning technique.

In reflecting upon the data, I endeavoured, firstly, to determine the relationship between the field interview data and the documented tradition of use and modes of application of umqalothi, and, secondly, to relate this tradition of use and the practical application of umqalothi therapeutically to data derived from the homoeopathic proving of Strychnos henningsii.

In so doing, I sought to confirm and/or extend the current understanding of the use of umqalothi amongst Zulu traditional healers, and, of more direct significance to the objectives of this study, to explore the extent to which the homoeopathic insight derived from the proving informs the understanding of the current use of umqalothi as a therapeutic substance. For the latter purpose I made direct comparison of interviewee and prover journal written texts using NVivo® software.

5.4.1 CONFIRMATIONS OF THE DOCUMENTED TRADITION OF USE

From the interview data I was able to confirm the vast majority of the documented traditional uses of Strychnos henningsii amongst Zulu traditional healers. While all except one healer [N3H] focused on the most widely
documented uses of *umqalothi* as a remedy for abdominal pain and colic and as a purgative used to induce vomiting (Hutchings *et al.*, 1996; van Wyk *et al.*, 2009), individual healers provided confirmation of almost all the documented uses of *umqalothi* in Southern Africa.

The documented use of *umqalothi* as an anthelmintic in children (Hutchings *et al.*, 1996) was confirmed by *inyanga* N1M, who described how the bark indeed is used in the treatment of worms, although he indicated that such use was more successful in adults and that the treatment of helminthiasis in children often necessitated use of proprietary medicines such as *Vermox*® [*mebendazole*].

**N1M:** ...when we see that the pain is really putting him in a fix, we would say. "Leave here and go to the doctor and ask for Vermox®*. When he arrives (there) and gets *Vermox®, then they [worms] will come out in small pieces... in small pieces. We help each other in this way.

**Interviewer:** Does this mean that you use it [*Strychnos henningsii*] to get rid of worms?

**N1M:** Very much. *Vermox®* gets rid of them, removing them (so that the gut is) clean and completely done. Sometimes we try to treat, but we see that we are failing. Then we advise someone to rush out and get specific pills. Often. But this is more common in children, but often with most of the abdominal pains of adults we are able to just do (what we normally do).

The use of *umqalothi* in various muscular pains, including dysmenorrhoea (Hutchings *et al.*, 1996), rheumatic pains in general (Hutchings *et al.*, 1996) and back pain (Njoroge and Bussmann, 2009), was to some extent confirmed by *isangoma* S3H who explained the use of *umqalothi*, either singly or in combination with other herbs, in various pains including backache, unspecified abdominal pains (which by the associated reference to *inyoka* [the snake] implied the inclusion of menstrual pain) and stiffness and pain in the buttocks.
The use of *umqalothi* in the treatment and management of sexually transmitted diseases [as discussed by Njoroge and Bussman (2009)] was confirmed by *izangoma* S1M, S2W and S3H. These healers made use of the generic term, *ilumbo*, which was, depending on context, understood to refer to “a disease affecting the youth that is sexually transmitted” [S2W], a form of witchcraft (‘umeqo’), or specifically to syphilis. Within this context it is difficult to determine the specific manifestation of sexually transmitted disease in which *umqalothi* is most favourably employed, although it is likely that it is used in syphilis (Orwa *et al*., 2009) and pelvic inflammatory disease (Njoroge and Bussmann, 2009).

In section 4.4.2.1, I described the confirmation also of the use of *umqalothi* in both the treatment of (type 2) diabetes mellitus and snakebite (and any other bite) provided by *inyanga* N3H.

Secondly, when a person arrives, perhaps *(after)* a snake has bitten *(him)*, or an animal or a human being, one is able to contain this effect of the poison so that it does not escalate rapidly by *(administering)* Red bitterberry, because it gets in and breaks it down. Yes! It gets in and destroys that disease. [N3H]

I was unable to find any evidence within the interview data of the local use of *umqalothi* in the stimulation of appetite (Ogeto and Maitai, 1983) or the treatment of malaria (Njoroge and Bussmann, 2006; de Ruijter, 2008). I was, however, able to confirm the documented use of both root- and stem bark *(according to context)* [8 healers], and their administration either by chewing [N1M], as pulverised bark [8 healers] or as a decoction *(by boiling in water)* [N2W, N3H, S1M and S3H] (Hutchings *et al*., 1996; van Wyk *et al*., 2009).

I was also interested to note the non-medicinal use of *Strychnos henningsii* wood amongst the Zulu for the manufacture of very durable fighting sticks *[izinduku]* [N1M], as a demonstration of the documented value of the timber for its strength, durability and resistance to termites (Orwa *et al*., 2009).
5.4.2 UNDOCUMENTED TRADITION OF USE AMONGST ZULU TRADITIONAL HEALERS

In addition to the confirmation of most of the documented uses of *Strychnos henningsii*, the interviews of traditional healers revealed a number of uses of *umqalothi* that I have not seen documented in the literature, as well as a number of undocumented modes of administration. The undocumented traditional uses include the medicinal treatment of headaches (particularly those associated with hypertension and epistaxis) [S1M and N4D], dysuria [S3H], hypertension [S2W and N3H], debility and wasting [S2W and N4D], and depressed immune function as one might encounter in patients suffering with HIV/AIDS [N3H and N4D].

*Umqalothi* was also identified as being an important constituent of a numerous and varied range of herbal mixtures having roles in the treatment of ‘complex disease’ [uzifozonke] [N3H, S1M, S2W, S3H and S4D] and various forms of witchcraft [umeqo, ilumbo and a range of Tokoloshe and other ‘wild animals’] [N3H, S1M, S2W, S3H and S4D]. The bark is also included in a range of amagobongo, as both an emetic [umuthi wokuphalaza] and as a means of connecting the initiate to the ancestral realm during ukwethwasa [N4D, S1M and S4D].

Although the predominant modes of application of *umqalothi* are as documented, I was interested to note, also, the consistent use of pulverised bark as a snuff [umbhemiso] in the treatment of headaches (particularly where these were understood to be associated with evil spirits) [S1M and N4D] and the oral application of pulverised bark by licking [S2W and S3H] or as an addition to porridge [S3H]. Although reference was made to the application of pulverised bark as an enema this was not well described and was evidently a mode of application that required some caution with respect to dosage [N4D and S3H].
5.4.3 THE INDIGENOUS UNDERSTANDING OF *UMQALOTHI*

As I described in section 4.4.2.3, the understanding of *umqalothi* amongst the traditional healers interviewed was related to two broad properties of the bark: its bitter taste and a perceived capacity to overcome malevolent forces. In the majority of descriptions of the manner of identification of a potent bark sample [N1M, N3H, N4D, S2W and S4D], the healers associated anticipated potency with the quality of bitterness. Within the context of the known phytochemistry of the plant, this bitter taste would be reasonably associated with the presence of strychnine, as a notably intense bitter-tasting alkaloid, or strychnine-related alkaloids (Edmunds *et al.*, 1986). Variously the bitter taste was understood as having a direct pharmacological effect e.g. in the reduction of hyperglycaemia in diabetes [N3H] or in the neutralisation of poisons [N3H and S2W], or a ‘magical’ ability to ‘do battle’ with malevolent forces [S3H] through an inherently ‘destructive’ nature [N1M, N3H and S2W].

This understanding is of some interest to me because the identified ‘characteristic’ property of the bark, bitterness, is indeed a characteristic property of strychnine, the most pharmacologically-related alkaloid. The presence of strychnine and its related compounds is also (scientifically) understood to account for the usefulness of *Strychnos henningsii* in the treatment of snake bites (van Wyk *et al.*, 2009), a context in which healers have associated a direct relationship between ‘bitterness’ and ‘neutralisation of poisons’. Of some interest also is the caution associated with the administration of large and frequent doses of ‘something so bitter’ [S4D], which bears direct relationship to the toxicity of strychnine itself (even though the concentration of strychnine and/or strychnine-like alkaloids within bark is relatively low) [see section 4.3.2].
What I am able to tell you about this plant that you are talking about called Red bitterberry is that it is a medicine whose mode of action is (in being) a bitter medicine. [N3H]

One can give it once or twice (a day). Red bitterberry is very bitter. **One would never want to drink something so bitter frequently.** [S4D]

I put in **(only) a teaspoon because it is a bitter medicine.** [N4D]

The ‘destructive’ nature and ability to ‘do battle’ against unseen ‘evil’ (whether in the form of microbes, internal serpents or any other forms of witchcraft) associated with the therapeutic effect of umqalothi was in some cases also associated with the bitter quality, but it appeared to me that the association was neither exclusive nor absolute. Although some of the therapeutic effect was clearly associated with the taste, at least one healer [S3H] associated the penetrative quality and the ability to ‘create a battle’ to a ‘magical’ understanding of disease, the properties of medicinal plants and treatment. This understanding of an unseen and unknowable ‘essence’ [S3H] within the medicine was alluded to by three izangoma and two izinyanga [S1M, S2W, S3H, N3H and N4D], who clearly associated umqalothi’s use within the processes of initiation, divination and the removal of witchcraft and charms with the plant’s intrinsic nature and not a specific property or attribute.

Notwithstanding this understanding of a medicinal plant’s intrinsic nature, or the notion of an essence within the very plant’s ‘being’, all the healers emphasised the importance of correct identification, responsible harvesting, and appropriate preparation. Of specific emphasis were the need for very fine grinding of the bark (to allow for maximal exposure of medicinal substances), precise compounding (to ensure a safe and reliable medicine) and an appropriate period of steeping or boiling, depending on whether a cold water extraction or a decoction was being prepared.
While the understanding of *umqalothi* amongst the two categories of healers was largely consistent (as described in section 4.4.3), I did, in addition, note the following differences according to the location of healers with reference to the endemic distribution of *Strychnos henningsii* and the extent to which healers were urbanised [see Figure 34 above]:
• The most extensive and descriptive interview data were derived from the least urbanised healers \([S1M, N1M \text{ and } S2W]\);
• The shortest, least extensive and most pragmatic interviews were those of urban healers \([S4D \text{ and } N4D]\);
• The descriptions of identifying features of the plant were least clear amongst the more urbanised healers \([S3H, N3H, S4D \text{ and } N4D]\), and one rural *inyanga* from the only non-endemic interview site \([N2W]\).

### 5.4.4 THE RELATIONSHIP OF THE PROVING TO THE TRADITIONAL AFRICAN MEDICINAL USE

In using *NVivo*® software to compare the interview data as a single data set \([Appendix \ Q(ii)]\) to the subjective proving data as another single data set \([Appendix \ L]\) I was able to identify a number of overlaps in both indications of use and language relating to the physical manifestations of disease, mental and metaphysical associations, and commonalities of sensation between *Strychnos henningsii* and *umqalothi*.

In my reflection upon the respective written texts and their overlap I was struck by the clarity of the respective expressions and the closeness of language, metaphor and tone utilised by two unrelated groups (provers and traditional healers), expressing their respective *Strychnos henningsii* ‘realities’ within very different cultural and situational contexts. That the respective contexts of data gathering were temporally separated by more than six months, and data acquisition and discrimination were effected by groups of researchers who had either no reference to the substance under investigation (the proving researchers), or no reference to the results of the proving (the interviewer of the traditional healers and the independent professional translator) makes these similarities all the more impressive. In order to emphasise what I view as a very striking unity of expression I have elected to present the respective expressions, where relevant, as referenced...
side-by-side text quotations from Appendix L [Materia Medica] and Appendix Q(ii) [Translations of Field Interviews (English)].

5.4.4.1 The Physical Manifestations of Disease

5.4.4.1.1 Abdominal Pain

Although *umqalothi* was described broadly as being indicated in various presentations of abdominal pain, there was one particular description of abdominal pain that was almost identical to the abdominal pain described by provers as being the specific abdominal pain of *Strychnos henningsii*. This pain is a sharp, stabbing pain localised to the peri-umbilical region that feels as if the umbilicus were being drawn inward. The pain is associated with tremendous bloating and, in the prover group, this pain was associated with a bad taste in the mouth, general digestive sensitivity and either diarrhoea or constipation.

If a person has **sharp abdominal pain**, one knows to take its bark and grind it...perhaps, you feel the pain is **encircling the umbilicus**; or *(the abdomen)* is **bloated**, resulting in **stabbing pains in the entire abdomen**...The abdominal pain of Red bitterberry is one of sharp aching in the person’s abdomen, which may be experienced as a **drawing sensation in his umbilicus**. [S3H] It is a **sharp pain in the umbilicus that draws inward** [S4D]

I have been having abdominal cramps for a while now; it feels **like needles in my belly button** and feels like **something is pulling my belly button**! [Prover 4: day 13]

Have had a **huge amount of bloating** and gas! Not normal at all. I need to pass wind very often. [Prover 2: day 10] I was **bloating for the whole day**, mostly on the left side. [Prover 11: day 4]

Comparison of the two data sets revealed that mild diarrhoea as a concomitant of abdominal pain was indeed a shared feature. The traditional
healers spoke of *umqalothi*’s usefulness in ‘firming up the stomach’ in mild diarrhoea [N1M] and in alleviating abdominal pain, particularly where this prevents one from continuing one’s work [N1M], whilst the provers related the diarrhoea to eating and described a similar mild diarrhoea with loss of energy as a consequence [Prover 15].

...(and) in medicines for abdominal pains when the pain is *a sharp ache, with mild diarrhoea*. [S4D] When one has a *running stomach*, this one would be drunk. Because it has the ability to firm up the stomach. [N1M] ...if he were to drink these *(white)* herbal mixtures, the *abdominal pain with diarrhoea* would come to an end. [N4D]... perhaps you are hunting and you are beset by *abdominal pain that is really impeding progress*...After swallowing *(them)* you would *(be able to) walk until you arrived home*. [N1M]

**5.4.4.1.2 Nausea and Vomiting**

Both the documented tradition of use (Hutchings *et al.*, 1996; van Wyk *et al.*, 2009) and the interviews revealed that *umqalothi* is used as a purgative, whether this be as an ingredient in *amagobongo* during *ukwethwasa*, as a restorative ‘white medicine’, or as a component of otherwise individualised treatment.

Whilst the traditional healers did not describe the specific experience of purging by *umqalothi*, a number of provers experienced very clear and well-described ‘purgative’ symptomatology associated with intense nausea, extreme gastric sensitivity and forceful abdominal cramping.
This medicine is also used as an **emetic to induce vomiting**, in things such as a love potion, which is a white medicine... Used as an emetic it clears the blood vessels [S1M]

This afternoon I ate one segment of a naartjie [tangerine] and within 10 minutes, my stomach was in knots and cramping. (It was) very painful! (I) then got **nauseous**! (I) felt pale. The pains subsided within 20 minutes but (the) nausea got worse; *I was gagging over (the) toilet bowl, thinking I was going to bring up.* (It) was very **severe**... [Prover 2: day 5] (I am) **very nauseous** [03h00]. I feel as if am going to throw up any minute... **Threw up around 06h30.** [Prover 9: day 24]

The effects on the digestive tract that are more overtly suggestive of liver dysfunction are discussed in more detail under section 5.4.4.1.5 (below).

### 5.4.4.1.3 **Headaches**

The use of *umqalothi* in the treatment of headaches has not been previously documented in the literature. Whilst, in the first interview conducted, an *isangoma* [S1M] provided a reference to the use of *umqalothi* in headaches arising from evil charms being placed upon one, it was the very last interviewee, *inyanga* N4D, who provided a detailed description of the nature of the headache that is most indicative of *umqalothi*.

The characteristic features included a sensation of heat and congestion in the vertex, throbbing, and irritation of the eyes with disturbances of vision. All of these features were described with reference to the headaches induced in provers under the influence of *Strychnos henningsii*. There was no evidence of the association of epistaxis and headache described by *isangoma* S1M.
This particular presentation of headache was only one of a range of headaches produced (as previously described), all of which would be ‘homoeopathic’ to *Strychnos henningsii*. What is of particular interest however, is that the indications for the use of *umqalothi* provided by the *inyanga* are wholly within the spectrum of what can be induced by *Strychnos henningsii* and are therefore ‘homoeopathic’ to the medicinal substance.

A headache that has a sensation of **boiling** here *indicating the top of his head* in the head, that **pounds**, and causes the **person’s eyes to become red and unable to see (clearly)*. [N4D]

You use it in things like headaches. Such as when you, sometimes, develop a **nosebleed**, and blood is streaming from the nose. [S1M]

Headache in temples...**eyes irritated** and painful. Headache in temples and eyes... [Prover 2: day 13] ...**throbbing** in nature, **located behind my left eye** and temporal region... [Prover 3: day 1]

Throbbing headache in forehead and eyes....*I want to just cut my skull and open it up...* > if I look straight at the light. [Prover 4: day 17] **Eyes have been red** for three days; < **when looking at computer and reading** < night. [Prover 14: day 6] Felt like my **eyes just zoomed in**, or they were **looking at an object that was really close**... [Prover 4: day 8] Vision is **blurry**. [Prover 15: day 12]

5.4.4.1.4 **Diabetes and Dysuria**

The documented use of *umqalothi* in the treatment of diabetes mellitus (Oyedemi *et al.*, 2009) was able to be confirmed in the interviews of traditional healers. The mechanism by which the medicine is understood to be effective was related to both its bitter taste and its ability ‘to reach the disease process and arrest it’ [N3H]. I was interested to note that both the intense craving for sugar and sweet things and the unquenchable thirst
(polydipsia) that are clinically associated with diabetes mellitus were recorded by provers.

Red bitterberry is able to assist in diabetes (because) it is able to reach (the disease process) and arrest it [diabetes]. [N3H]

Because Red bitterberry is used a lot in strong herbal mixtures for (the treatment of) “amalumbo”. Then there are those who have been diagnosed with diabetes, who are losing weight, and appear to be anaemic. [S2W]

(I am) still thirsty although drinking more than 2 litres of water yesterday. [Prover 25: day 6] Today I really enjoyed my juice. I could drink so much of it and I’d still want more [Prover 31: day 5]

Craved sugar, especially jam doughnuts!!! [Prover 2: day 1] Have a real sweet tooth since the proving!!! Want to bake pastries... [Prover 2: day 6]
Went shopping for candy. Had a lot of chips. [Prover 4: day 5]

Whilst polyuria, as a common clinical symptom of diabetes mellitus, was absent within the proving data, I was interested to also note the overlap of symptomatology of dysuria, in particular the sensation of burning within the urethra, between the proving data of Strychnos henningsii and the indication of umqalothi in dysuria, as a feature of otherwise vaguely described affections of the urinary tract.

Red bitterberry is able to be included (in a mixture) when...he is not feeling well (due to kidney problems). Perhaps he is experiencing burning on urination. [S3H]

I have fullness of bladder although no or little passing of urine. (There is a) warm, pressing, burning sensation in my urethra. [Prover 1: day 11] I have increased frequency and urgency. (There is) slight pain after urination and after emptying in groin – dull pain. [Prover 1: day 17] Burning (during) urine; just during (urination), not before or after. [Prover 14: day 24]
5.4.4.1.5  Effects on the Liver

The documented use of *umqalothi* as a bitter tonic (Hutchings *et al.*, 1996) was not confirmed directly in the interviews. Although *umqalothi* was never described as ‘a bitter tonic’ *per se*, it was clear, within the interview data, that the medicine is strongly associated with the stimulation of detoxification processes (however these may be conceptualised and described) and that this capacity is associated with its having a bitter taste. This is consistent with the notion of ‘a bitter tonic’ (Mills and Bone, 2000).

Used as an emetic it *clears the blood vessels* since this is where the evil spirits affect a person...then use the white one, which will *wash your blood* so that it becomes white...It means that it changes the blood such that you will look *like a person who is comfortable and living well.*

After all it *removes magic charms* that would make one disagreeable or unattractive...We use these medicines in this way to *establish another type of blood.* One that *helps a person who is becoming ill.* [S1M]

Indeed, it is included in strong *blood-purifying* complexes [S4D] No, one is definitely able to *include it* where it has *cleaning effects,* because it brings about a battle *against the thing that pollutes* the patient’s internal environment. [S3H]

Still have *bad taste* in my mouth. (I) cannot really describe it... Not pleasant, could make me nauseous. Taste is not bitter, but is maybe bile! *Bad bile!!!* [Prover 2: day 3] I think my *liver is affected* (because of) nausea, and taste, and waking between 01h00 and 02h00. (I am) also bloated and passing gas often... [Prover 2: day 6] Feels like a hamster has crawled into my throat and died in my tummy and now I am *burping dead hamster!!!* [unusual]. [Prover 1: day 13]

My *stool is darker,* almost black. [Prover 4: day 5] My *eyes look a bit yellow.* [Prover 4: day 20]

Feel *extremely drained and exhausted in the early afternoon.* [Prover 9: day 9] Feel *tired and weak* in the morning, like some sort of sick person. [Prover 9: day 25]
The proving data (as quoted above) includes a significant number of overt clinical symptoms suggestive of liver dysfunction, including a bad taste in the mouth, biliousness, early afternoon exhaustion, dark stool and yellowish discoloration of the eyes. This clinical presentation of liver dysfunction was further supported by blood tests that revealed statistically significant elevation of ALT and decreased conjugation of bilirubin, as previously discussed.

5.4.4.1.6 Debility, Weakness and Depressed Immune Function

A notable depletion of energy, which was difficult to relate exclusively to emerging liver dysfunction, was a characteristic of the *Strychnos henningsii* proving. Provers recorded profound prostration and weakness, as well as unusual susceptibility to infections and feelings of ‘fluiness’. This experience was very similar to the indications provided by healers.

You recognise signs such as the person being *debilitated*. His *immune system is depleted*. [N4D]

Such as the medicine for the complex disease that human beings collectively are talking about…this disease that is current that is called “igculazi”. Others call it “HIV”. It encompasses all the diseases on account of the fact that the *body’s immune system is rendered unable to continue to work*...Through its destructive nature, *it kills microbes*. [N3H]

**No energy!!! Exhausted and cannot move.** [Prover 1: day 9] Feel tired and weak in the morning, like *some sort of sick person*. [Prover 9: day 25] **Energy levels at an all time low.** I really don’t remember when last I was so tired. [Prover 14: day 14] (The) energy has officially drained from me. (I) *feel extremely exhausted*—throughout the day and slightly fluey. [Prover 9: 23] Feel as if a truck ran over me. (I am) feeling weak and tired. (I) feel very sick. [Prover 25: day 23]

*I’ve never been so sick* like this in my life. [Prover 15: day 13] **If it’s not one illness, it’s another.** I had a bad ‘flu during the weekend. [Prover 15: day 16]
Cramps

The pharmacological action of strychnine as a glycine-receptor antagonist (Bagust et al., 1981), suggests that strychnine-containing medicinal plants should produce some measure of hyper-excitability of the central nervous system and various spasmodic phenomena (Burn et al., 1989). The tonic convulsions, tetanic spasms and death as a result of respiratory arrest and asphyxia associated with toxic doses of strychnine (Dittrich et al., 1984) further attest to this element of the documented pharmacology of strychnine.

(A pain) which is **decisive** and intense. Incredible! *(A pain)* that is **totally disabling** and cuts right through you. *(N2W)* When this type of pain is experienced, the person may be **compelled to writhe about**, due to the presence of a disturbance within his bowel. *(S3H)*

...when one uses a medicine such as those used for evil spirits, at the particular time that one uses it, you experience **spasms or sensations of shaking**. *(S1M)*

The pain is a bit dull like something heavy sitting there or perhaps a **cramping pain**. *(Prover 11: day 1)*

Tummy was sore this morning after I ate yoghurt and seeds and apple for breakfast. The pain is **crampy**. *(Prover 14: day 10)*

I tried to pass stool; (it) felt like it was coming out easily, *then got ‘stuck’*, and wouldn’t come out! I had (an) awful ‘incomplete’ feeling. *(Prover 2: day 2)*

Right shoulder (is) **cramping badly**. *(Prover 2: day 6)* Had a **muscle cramp** in my forearm after lunch. *(Prover 25: day 18)* Also the trapezius and deltoid muscles sometimes go into **spasm**. These muscles are only painful when I’m trying to move. The **spasm** also occurs when I’m resting. *(Prover 11: day 6)* My left eye **twitches**. *(Prover 15: day 2)*
Within this context, it was interesting to note, not only that umqalothi, as a bark containing strychnine and/or strychnine-related compounds at very low concentrations [see section 4.3.2 and van Wyk et al., 2009], is used traditionally in the treatment of cramps (particularly abdominal cramps) and spasms (i.e. ‘homoeopathically’), but that the proving verum, in which there was no mathematical possibility of the existence of a pharmacologically active compound [see section 2.4.1 and 2.4.4 above], yielded a large number of symptoms that would ordinarily be understood to arise from the pharmacological action of strychnine (or a strychnine-related compound) on a glycine receptor (Braestrup and Nielsen, 1980; Bagust et al., 1981; Kehne et al., 1981; Edmunds et al., 1986; O'Neill and Bolger, 1990; Jensen et al., 2006).

5.4.4.2 The Mental and Metaphysical Indications

Within the scope of the NVivo® data comparison I was most struck by the unity of expression existing between the respective traditional and homoeopathic understandings of the mental and metaphysical indications of the plant, Strychnos henningsii. The indigenous understandings of umqalothi as an agent against malicious attack, as a means of spiritual grounding and connection to an ancestral dimension, and as a source of confidence and strength were all represented within the proving of Strychnos henningsii.

5.4.4.2.1 Perceived Attack by Unseen Malicious Forces

The indigenous understanding of umqalothi, as revealed in the interviews, places emphasis on the capacity within the plant (either within its own ‘essence’ [S3H] or through its bitter quality) to destroy unseen malevolent agents and forces. The traditional indications include various physical complaints arising from externally induced ‘evil spirits’ [S1M] and ‘internal serpents’ [S3H] and various forms of witchcraft, including ‘wild animals’ and other ‘evil beings in human form’ [S4D].
It is used in...herbal complexes to eliminate diseases caused by walking across witchcraft placed on a path; it is used against all sorts of evil apparitions. [S4D]

It is a headache due to evil spirits, a headache from evil spirits such as arises from an evil charm which has been placed on one. Where there are things like this it will cure it. [S1M] ....one would accurately target that pain which was placed within that patient by medicines (of evil intent)...One is able to subdue that poison...by including Red bitterberry (in a mixture). [S3H]

It is also included in the fumigation of wild animals in cases of evil spirits. When there is a wild animal it is prepared and used as a fumigant...these fabulous water sprites...and other evil beings in human form. [S4D]

...But the steps seemed to stop next to my bed and then I heard heavy breathing. I was becoming more and more afraid as I realised that someone was standing behind me just breathing heavily. I turned around and there was no one there!!!...Just as I was starting to relax I felt someone...whisper in my ear from behind ['hello']. I was terrified... [Prover 6: day 1]

...One of the voices sounded like my dead sister and couldn't recognise the other one. They sounded like they were outside, but I heard the voices and footsteps coming closer...but then they got closer to my bed and was jumping into bed with me. I got scared, prayed and woke up...Then felt like my blanket was suffocating me...as if someone was deliberately holding the blanket tight on my head....He kept forcing me to speak, ...tried to fight him, but he was too strong....I feel like i am in total darkness and evil is overshadowing me! [Prover 4: day 22]

I was dreaming that I was attacked by demons... [Prover 31; day 3]... (I) saw an Arab woman giving birth and then a man snatches the baby from her and gives it to a beast who eats the child [Prover 2: summary]
The materia medica of *Strychnos henningsii* evokes the very same association of evil, terror, and suspicion described by the traditional healers. I have previously demonstrated this representation within the proving of a sense of being under attack by an unseen ‘evil’ intent upon one’s destruction, and the reaction of tremendous anxiety, terror and extreme fear, to also relate to the toxicological action of strychnine itself [see section 5.3.3.1.1].

5.4.4.2.2  **Confidence and Perceived Strength**

The physical strength and hardness of *umqalothi*, so valued within the context of ‘stick fighting’ and in the manufacture of *izinduku*, found its expression within the proving as an extreme confidence, a feeling of being inconquerable, and a sense of superiority over others.

...**It does not get broken**, indeed, even in stick fighting amongst young men, it **does get broken**. It **does not get broken**, only the sticks can be broken off from *(the trunk of)* the Red bitterberry.

Red bitterberry is **hard**, its hardness is like that of a **cattle bone**. [N1M]

I feel **confident** in what I do and who I am, at work and out of work. [Prover 30: day 10] I feel I **can handle anything** that comes my way. I managed to process my work before the cut-off time with no errors.... [Prover 30: day 18] Work has been smooth sailing; **nothing that I can’t handle**. [Prover 30: day 21]

...**They can’t tell me that. They know nothing.** I woke up very mad, only to find out I was dreaming. [Prover 15: day 13] Dreamt last night...about teeth and **jaw bones**... [Prover 6: day 7]
5.4.4.2.3 **Spiritual Grounding and Connection**

Within the foregoing context, I found the unity of expression between the sense of disconnection with the ancestral and spiritual realm, and the need for spiritual grounding, amongst *Strychnos henningsii* provers and the use of *umqalothi* to connect to the ancestral and spiritual realm to be both uncannily exact and difficult to dismiss as co- incidental.

Even in the preparatory process of **linking you with ancestral spirits**, when you drink that water which is prepared, ...and which is to be used as an emetic. [S1M]

A person would be shown this medicinal herb, so that he necessarily gets this medicinal herb in *(his)* amagobongo and drinks it, in order to **raise his messenger** [ancestral spirit]. So that he is **able to work and assist other people**. [N4D]

To make it clearer, **when people’s channels are closed, it opens them up** (so that) they **become clear** and he is *(once again)* **able to see**...if a diviner were in a position where there was something that she was unable to see *(clearly).* But if she were to drink a Red bitterberry brew **all would become absolutely clear to her. She would be able to see** *(with a clear understanding)* and tell you the *(precise)* nature of your disease [N4D]

**Spiritually refreshed and re-rooted.**

[Prover 4: day 4] I felt God’s presence and it was comforting!!! [Prover 4: day 5]

Feel like my **emotions are distant**, like I am less connected to my emotions and the moment. I also feel like I have been **distanced from God.** I have prayed less and had much less faith that God will look after me! [Prover 2: day 7] I am feeling completely **on my own and that no one can help me** and no one understands!!! [Prover 2: day 11] I feel like God has forsaken me, I feel like **I am in total darkness** and evil is overshadowing me! Started reading the Bible. [Prover 4: day 22]

Dreamt I was in a war, but **not part of it**...I saw an aeroplane crash on electricity wires on the street and flatten a young boy, but **I felt nothing, no sympathy, no sadness, nothing.** I just walked away. The war didn’t affect me. **I walked with my dead great-grandmother.** [Prover 4: day 2]
5.4.4.3  The Commonalities of Sensation

My comparison of the sensations described in the proving to those described by traditional healers revealed five shared sensations. For the purposes of the comparison I paired the sensation ‘sore’ and ‘aching’, and the sensations ‘throbbing’ and ‘pounding’. My reasons for doing these were related to issues of translation: the isiZulu word ‘-luma’ [meaning ‘a sharp (stomach) pain’ (Doke et al., 2008: 468)] is used colloquially somewhat generically to refer to ‘a pain’ (particularly an abdominal pain) much as, in English, one would refer to an abdominal pain as ‘sore’ or as ‘stomach ache’, and the single reference amongst the traditional healers [N4D] to the sensation associated with the headache was ‘-gxaba’ which translates as ‘boil, bubble or seethe’ (Doke et al., 2008: 289). These are very unlikely verbs to use in the colloquial description of headaches, or indeed any other pain, in English, and so I chose to substitute the more regular English verbal equivalents of ‘pound’ and ‘throb’ which similarly convey a repetitive sense of internal congestion. I effected these groupings and substitutions to ensure that the comparison was not compromised by an overly ‘literal’ handling of the translated written text.

<table>
<thead>
<tr>
<th>Sensation</th>
<th>Proving Subjects</th>
<th>Traditional Healers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aching / Sore</td>
<td>01, 02, 11, 14, 15</td>
<td>S3H, S4D</td>
</tr>
<tr>
<td>Pounding / Throbbing</td>
<td>06, 09, 15</td>
<td>N4D</td>
</tr>
<tr>
<td>Pulling</td>
<td>04, 11</td>
<td>S1M, S3H, S4D</td>
</tr>
<tr>
<td>Stabbing</td>
<td>02, 04, 09, 11</td>
<td>S3H, S4D, N1M</td>
</tr>
<tr>
<td>Twisting</td>
<td>11</td>
<td>S1M, S3H</td>
</tr>
</tbody>
</table>

*Table 27: The Tabulation of the Commonalities of Sensation*

5.4.4.4  The Overlaps with Other Documented Traditions of Use

Although the interview data yielded no specific reference by healers to the use of *umqalothi* in the treatment of dysmenorrhoea [*isilumo*], the stimulation
of appetite, or the relief of back ache and rheumatic pains in general, the proving data of *Strychnos henningsii* did contain journal entries related to these documented traditional uses.

Provers 2, 11 and 14 recorded menstrual periods that were late [Prover 11] heavy [Provers 2 and 11] and extremely painful [Provers 11 and 14]. The pain was protracted [Prover 11], violent and characteristically twisting with a pulling sensation as if the uterus were to come out [Prover 11].

> Around 17h00 my periods were heavy and the pain very violent; pulling down (and) twisting. I started to lose my temper, shouting at my siblings. I felt like my whole uterus was going to come out... [Prover 11: day 6]

Appetite was stimulated in Provers 6 [day 14] and 25 [days 5 and 13], and backache and rheumatic pains were recorded by a number of provers [Provers 1, 2, 3, 9, 14, 15, and 25].

> Stiff lower back, shoulders and neck. [Prover 2: day 4] Had a terrible back ache (on) lower left side. [Prover 9: day 14]

> My back and upper limbs, and joints are sore. My body was very achy at night. [Prover 15: day 6] My upper extremities are sore when I wake up. [Prover 15: day 20] Muscles are very stiff again even though there was not much exercise to warrant it; especially the right butt muscles, and calves on both sides; < sitting still for long. < when starting to move. [Prover 14: day 13]

> Right shoulder joint sore from sleeping on it! [Prover 1: day 9] Slight pain in left shoulder. [Prover 25: day 7] Right wrist feels a little stiff. [Prover 25: day 20]

5.4.4.5 The ‘Homoeopathic’ Application of Umqalothi

The materia medica of *Strychnos henningsii* represents the sub-toxic disease-inducing potential of *Strychnos henningsii*. To the extent that the traditional application of *umqalothi* in the treatment of disease overlaps with
this materia medica, such application may be understood to be ‘homoeopathic’, in the sense that the medicinal substance is being used to treat what the substance is demonstrably able to induce in healthy subjects. In this comparison I was able to demonstrate ‘homoeopathic’ application of umqalothi (to the degree that there is symptomatic overlap) in abdominal pain, nausea and vomiting, headache, diabetes mellitus, dysuria, dysmenorrhoea, stimulation of appetite, rheumatic complaints and backache, liver dysfunction, physical and immunological weakness and debility. I was further able to identify the traditional use of umqalothi as a means of connecting to the spiritual realm and as a treatment in particular manifestations of anxiety, paranoia and other feelings of ‘malevolent pursuit’ as being ‘homoeopathic’, in as far as there is a direct overlap of symptomatology.

The evident ‘homoeopathic’ application of umqalothi is both consistent with the recognition by one isangoma [S1M] of the principle of similars as a therapeutic reality, and in contradiction to Mills and Bone’s (2000: 10) assertion that traditional medical systems are all ‘allopathic’ in their application. Indeed, there are documented applications of umqalothi for which there was no evident ‘homoeopathic’ correlate in the proving. The application of umqalothi in the treatment of snakebite, intestinal worms, sexually transmitted diseases (including syphilis) and malaria are not demonstrably ‘homoeopathic’ and are therefore assumed to be ‘allopathic’ or arising from a direct pharmacological effect.

In the midst of the large number of ‘homoeopathic’ applications of the crude bark, it is interesting to note that the traditional application of umqalothi places great emphasis on the use of very small and infrequent doses. This is consistent with homoeopathic posology, which argues that when a substance is used homoeopathically the therapeutic virtue is increased with increasingly small doses, and that larger doses have a disruptive and aggravating effect (Eizayaga, 1991; Hahnemann, 1996).
CHAPTER FIVE: The Discussion

5.5 THE CONSISTENCY OF HOMOEOPATHIC PROVING METHODOLOGY

The triple-blind design employed in the proving of *Strychnos henningsii* was adopted expressly to obviate the possibility that the inclusion and exclusion of subjective proving data could be influenced by *a priori* expectations of what the proving effects may be, based upon remedy relationships, known active principles or the documented tradition of use. In this study, the four M.Tech. students who supervised provers and subsequently compiled the materia medica and repertory were not aware of the kingdom classification of the proving substance (i.e. plant, animal or mineral kingdoms), nor the botanical family (i.e. *Loganiaceae*), the specific species within that botanical family (i.e. *Strychnos henningsii*), nor the part utilised (i.e. bark) until all elements of the compilation of materia medica repertory were completed and finalised.

In adopting this additional level of blinding, I wished to ensure that the proving data set represented, as far as possible, the true drug effect (without prejudice and bias) and also to ascertain the extent to which homoeopathic proving methodology yielded a consistent effect i.e. whether it is possible on the basis of the proving data alone to determine or, with any measure of certainty, to speculate on the kingdom and/or family classification of the proving substance.

5.5.1 THE COMPARATIVE MATERIA MEDICA ANALYSES

As presented previously in sections 4.5.2.1 and 4.5.2.2 respectively, the repertorial comparisons of the total number of *Strychnos henningsii* rubrics to seven other remedies within the *Loganiaceae* botanical family, and a selection of 50 representative rubrics to the entire existing homoeopathic materia medica (as contained within the *Radar® 9.0* software package), the
proving data showed high levels of consistency with existing materia medica data.

On the basis of 50 representative rubrics, I found the most similar plant remedy, and second most similar remedy overall, to be *Nux vomica* (corresponding to 45 of the 50 rubrics), a member of the *Loganiaceae* botanical family and one of the original sources of pure strychnine (Simon, 1999). This evidently close similarity to *Nux vomica*, in that comparative analysis based upon a sample of only 50 rubrics, was confirmed in a comparison of all *Strychnos henningsii* rubrics to those of other *Loganiaceae* remedies. In this comparison, there was a 62.8 percent overlap with *Nux vomica* and a 48.7 percent overlap with *Ignatia amara*, another original source of strychnine. There were 226 rubrics [25.8 percent of total] not found in any other *Loganiaceae* remedy, and 348 rubrics [39.7 percent of total] found in at least three *Loganiaceae* remedies.

In a direct materia medica comparison between *Strychnos henningsii* and the four most prominent *Loganiaceae* remedies (viz. *Nux vomica, Ignatia amara, Spigelia anthelmia* and *Gelsemium sempervirens*) I found a number of similarities and points of differentiation between the respective remedies. Due to their having no direct significance to the conclusions of this thesis, I have elected to not present the details of these within this thesis and refer the interested reader to the conference proceedings relevant to their previous presentation (Ross and Naidoo, 2010).

5.5.2 THE RELATIONSHIPS TO MAPPA MUNDI

5.5.2.1 The Relationship of Proving Data to *Mappa Mundi*

My analysis of the proving data in terms of the elemental theory proposed in the *Mappa Mundi* model (Norland, 2003; Norland, 2007) [see Figure 23 under section 4.5.2.3] revealed a predominant axis between the Fire and Air
elements, most clearly demonstrated by the marked sense of alienation from ‘God’ and the paranoid sense of attack by malicious forces, whether these be voices, demons or microbes. Physical manifestation of dis-ease related to this axis include sensations of heat, marked itching, general nervous hypersensitivity, increased libido and a desire for sweet things [Fire], and numbness, dull pains, and asthmatic respiration and a sense of suffocation [Air]. In terms of this axis, the ‘Fire’ manifestations would be most marked around noon, and the ‘Air’ manifestations most marked around midnight. In this respect I was interested to note that the paranoid sense of attack (Air) was indeed most marked in provers around midnight, and that Prover 15 recorded an unusual increase in libido (Fire) ‘every midday’.

I identified a secondary axis between the Choleric and Phlegmatic temperaments, manifesting most clearly through the marked irritability, restlessness, cramping and marked effect on the liver at the one pole of the axis [Choleric], and the fear of domination, insecurity, physical debility, profuse production of mucous and aggravation by movement at the other [Phlegmatic].

5.5.2.2 The Relationships of Loganiaceae to Mappa Mundi

I subsequently compared my Mappa Mundi analysis of Strychnos henningsii to similarly-derived analyses of other Loganiaceae remedies contained in Norland (2007). I was interested to note that Nux vomica has been classified as manifesting disease only along the Choleric-Phlegmatic axis (which I represent somewhat simplistically and merely for purposes of illustration by its irritability, marked effect on the liver and digestive tract, copious production of mucous and noted aggravation at 3am and 3pm), and that the pure alkaloid strychnine has been classified as manifesting disease only along the Fire-Air axis (similarly represented by extreme nervous hypersensitivity, increased libido, headaches, itching, and overwhelming fear of suffocation, evil, coldness and asphyxia).
In terms of Norland’s analyses of the Loganiaceae remedies, presented in Figure 35 below, the remedy most similar to Strychnos henningsii in its totality is Ignatia amara, which shares both the predominant and secondary axes. Nux vomica, whilst demonstrating the greatest similarity in terms of characteristic physical effects on the liver and digestive system and the total number of rubrics, does not share the ‘connection-disconnection’ conflict associated with the Fire-Air axis so prominently manifest within the proving of Strychnos henningsii. The pure alkaloid, strychnine, by contrast, shares the ‘connection-disconnection’ conflict with Strychnos henningsii, but does not share the pathological affinities associated with the Choleric-Phlegmatic axis that were similarly a marked feature of the proving.

<table>
<thead>
<tr>
<th>Strychninum</th>
<th>Strychnos henningsii</th>
<th>Nux vomica</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Diagram" /></td>
<td><img src="image2.png" alt="Diagram" /></td>
<td><img src="image3.png" alt="Diagram" /></td>
</tr>
</tbody>
</table>

Spigelia anthelmia | Ignatia amara | Gelsemium sempervirens

Figure 35: The Mappa Mundi Analyses of Loganiaceae Remedies
(Norland, 2007)

5.5.2.3 The Relationships of Phytochemical and Indigenous Information to Mappa Mundi

I was interested to note that while the isolated phytochemical information (as represented by Norland’s analysis of the pure alkaloid, strychnine) showed only partial correlation with the totality of Strychnos henningsii, a Mappa Mundi analysis of the indigenous understanding (as represented by the
interview data) that I had conducted previously revealed a direct correlation with the proving data. The interview data similarly reflected a predominant Fire-Air axis and a secondary Choleric-Phlegmatic axis. I have presented a summary of this analysis as Figure 36, below.

**CHOLERIC**

Heat and Dryness

*Forceful; Dynamic; Tight* — strength; intolerant; > activity;
Abdominal cramping and spasm, sensations of constriction and twisting;

Affections of stomach and liver,
Use as ‘white medicine’ and emetic
*Taste*: bitter
*Colour*: Red  
*Time*: Noon

**FIRE: Heat and Light**

*Connection; Creation; Images of God* — the spiritual impulse, *ukwethwasa* and the connection to the ancestral realm; confident and strong; intuitive, passionate and helping others.

Sensation of heat, epistaxis, nervous hypersensitivity, affections of eyes, itching and redness; energy; love for others; diabetes;

*Colour*: Red  
*Time*: Noon

**AIR: Cold and Dark**

*Disconnection; Destruction; Images of Death* — weakness, debility; alienation; fears of suffocation, falling, the dark, death, evil and malevolent attack.

Dullness; despair and isolation; desires sour tastes

*Colour*: Black  
*Time*: Midnight

**PHLEGMATIC: Cold and Wet**

*Yielding; Static; Loose* — repressed; indecisive; insecure; < motion;

Debility and weakness; affections of conjunctivae; rheumatism; susceptibility to infections

*Colour*: Indigo  
*Time*: 3am

Fear of being possessed, losing identity

*Figure 36: A Summary Presentation of the Key Features of the Indigenous Understanding of Umqalothi in terms of Mappa Mundi*
CHAPTER SIX:
THE CONCLUSIONS AND RECOMMENDATIONS

6.1 SYNOPSIS

In this study I aimed to appraise homoeopathic proving methodology as a bridge between the indigenous and rationalist-scientific understandings of medicinal plants through a detailed exploration of the relationships existing between data derived from the respective explorations of a single African traditional medicinal plant, *Strychnos henningsii*.

In my conceptualisation of the study design, I was acutely aware that a large proportion of the anticipated data were inherently subjective, and that homoeopathic proving methodology, as a central focus in the study, is a mode of scientific investigation that is not universally accepted (Dantas *et al.*, 2007). Criticism of the method as a ‘scientific’ mode of investigation arises, I believe, in the most part from persistent questions surrounding the capacity of ultra-molecular doses to induce ‘real’ changes in biological systems, and the absence of a consistent model to explain the mechanism by which this would be possible (Walach, 2005). Towards obviating these ‘weaknesses’, I was mindful of the need to adopt a scientifically rigorous research design and to maximise ‘objectivity’ in data acquisition and interpretation.

In the homoeopathic drug proving of *Strychnos henningsii* I therefore adopted a triple-blind, placebo-controlled design in which the individuals interacting with the 32 proving subjects, extracting data from journals and, most importantly, determining the final subjective data set against defined inclusion criteria, were unaware of the nature of the substance being proved, in addition to the ‘standard’ double-blind conditions under which neither subject nor observer is aware of the randomisation and allocation of placebo
and verum test substances, but the nature of the substance under investigation is often known to the observer and/or the individual who defines the research data set (Cámpora, 1999).

As an additional ‘test’ of the capacity of a microdose (ultra-molecular) medicine to induce changes in a healthy human being, I incorporated an ‘objective arm’ in the form of pathological blood tests prior to, and at three points within the proving experiment. The statistical analysis of these blood data and the determination of significant ‘treatment effects’ were effected by a neutral biostatistician who is attached to a medical research institution.

In terms of the rationalist-scientific paradigm, the understanding of the therapeutic potential of \textit{Strychnos henningsii} bark, and indeed the ‘scientific’ understanding of its current use amongst Sub-Saharan African traditional healers, would be based upon the pharmacology and toxicology of identified ‘active principles’ (van Wyk and Wink, 2004; Lipton, 2005). The existing scientific literature suggests that the most pharmacologically significant ‘active principles’ in \textit{Strychnos henningsii} are strychnine and/or strychnine-related alkaloids (Bisset \textit{et al.}, 1975; Massiot \textit{et al.}, 1991; de Ruijter, 2008; van Wyk \textit{et al.}, 2009). The nature and concentration of pharmacologically active substances within different plant parts, and between similar plant parts from different locations have, however, been identified as being quite variable within this species (Massiot \textit{et al.}, 1991).

In subjecting the same bark sample used in preparation of \textit{Strychnos henningsii 30CH} to phytochemical analysis I wished to confirm whether these alkaloids indeed were present within the sample, and whether proving symptomatology was able to be directly related to the identified alkaloids. The phytochemical analysis (as described in section 3.3) was similarly effected by a neutral medical research institution, unaware of the nature of this study, and with whom I have no formal association.
In seeking to describe the indigenous understanding of the medicinal plant, *Strychnos henningsii* amongst Zulu traditional healers, I was concerned that the data derived should be as detailed, as representative and as authentic as possible. To this end, I believed it necessary for field interviews to be conducted on a representative sample of traditional healers of both major types (herbalists and diviners), in the isiZulu vernacular, by a Zulu mother-tongue interviewer, and in the context in which the respective healer lives and works (House, 2006). I determined that a semi-structured interview methodology was most appropriate to the objectives of the study (Willis *et al.*, 2007), and that the interviews would be conducted by an M.Tech.Hom student who was blind to the results of the homoeopathic proving. The interviews arising from the implementation of this methodology (as described in section 3.4) were video recorded by me (Conolly, 2002), collaboratively translated into English by the student researcher and me (Pavlovic, 2009), and verified as being accurately, appropriately and consistently translated by an independent qualified language practitioner and translator (Newmark, 1991; Albakry, 2005).

The data derived from the implementation of the homoeopathic proving methodology was compiled into standard materia medica formats (as a ‘subjective’ proving data set), the results of blood tests (as an ‘objective’ proving data set) were captured as *Microsoft Excel®* spread sheets, and the results of phytochemical analysis were recorded as Qualitative Compound Reports that included MS spectra, identified molecular weights of compounds and corresponding spectra peak lists. The data derived from the field interviews were recorded as eight verbatim written text isiZulu ‘dialogues’ and corresponding English translations (with explanatory footnotes).

I discussed each data set on its own terms, and used a range of analytical and comparative techniques to explore the relationships existing between different data sets. I effected some of these analyses with the aid of the *NVivo®* 9 and *Radar®* 9.0 software packages, and the *Mappa Mundi* model
described by Norland (2003; 2007). The conclusions that I have drawn from the paradigmatic exploration of *Strychnos henningsii* as a medicinal plant, my comparative analyses of the respective data sets, and my reflections on the results and implications of the findings in terms of the aim of the study, are discussed in terms of the defined research objectives in section 6.2, below.

6.2 THE CONCLUSIONS

6.2.1 THE OBJECTIVES OF THE STUDY

*The first objective* of this study was to elicit, observe and document the reversible symptom complex and changes in blood chemistry induced by a sample of bark of *Strychnos henningsii* in the 30CH homoeopathic potency (designated in the thesis as *Strychnos henningsii*) on healthy human subjects, under triple-blind placebo-controlled conditions.

In this study, the administration of a maximum of nine powders of *Strychnos henningsii* 30CH under the triple-blind, placebo controlled experimental conditions described in section 3.2 induced a range of deviations from the former healthy state in verum provers. The comparison of pre-proving observation data to post-administration data of verum provers, and subsequent comparison to proving data of placebo provers, revealed 581 subjective symptoms that could reasonably be attributed to the administration of the verum. These effects were varied and wide-ranging, but were most notable in the mind, head, stomach, extremities, sleep, dreams and general symptoms. These symptoms constitute the materia medica of *Strychnos henningsii* [Appendix L] and, alongside the 877 rubrics derived from them as repertorial entries [Appendix M], form the basis for the use of potencies of *Strychnos henningsii* bark in homoeopathic practice.
The data derived from pathological blood testing (as described in section 3.2.2.3.3) on day three of the pre-proving observation period and days three, ten and 24 of the proving period, similarly indicated a capacity for an ultra-molecular dose of *Strychnos henningsii* to induce objective changes in blood chemistry in verum provers [Appendix O]. Statistical analysis of the independently-derived blood results, using repeated-measures ANOVA (including simple contrasts) and profile plots, revealed significant treatment effects relating to erythrocyte sedimentation rate, mean corpuscular volume, mean corpuscular haemoglobin concentration, absolute lymphocyte count, eosinophil percentage, basophil percentage and absolute basophil count, bilirubin conjugation, and the alanine aminotransferase level [see Table 8].

The statistical analysis also revealed that there were no statistically significant differences between the placebo and verum groups on day 24 of the experiment, nor between day 24 and baseline values within either group. This suggests that all the objective changes induced by the verum were self-limiting and completely reversed by day 24 of the proving experiment, which was consistent with the evolution of subjective proving symptomatology as recorded in prover journals, and the paradigmatic understanding that the induction of ‘proving symptoms’ within a homoeopathic proving is a self-limiting and reversible phenomenon (Hahnemann, 1996; Walach *et al.*, 2004; Lewith, Brien and Hyland, 2005).

**The second objective** of this study was to subject the same sample of *Strychnos henningsii* bark used in the preparation of the verum potency utilised in the proving experiment to phytochemical analysis in terms of the presence of strychnine and related indole alkaloids, using HPLC-MS.

Although the phytochemical analysis of the bark sample was unable to confirm the presence of the genus-defining alkaloid, strychnine, it was able to confirm the presence of between two and five strychnine-related indole alkaloids. The confirmed molecular weights were 370.1893 (suggesting the
presence of splendoline, and/or 23-hydroxyspermo-strychnine-N-oxide and/or 17, 23-dihydroxyspermostrychnine) and 352.1787 (suggesting the presence of henningsiine and/or cyclostrychnine). Regrettably the use of HPLC-MS as the sole means of phytochemical analysis precluded the possibility of positively identifying the specific alkaloids at each MW, although the analytical technique was able to define the concentration of the alkaloids at each molecular weight as being extremely low, at 1.24 and 0.94 parts per million respectively [Appendix P].

In the absence of clear pharmacological and toxicological data relating to any of the candidate strychnine-related alkaloids, and in view of research conducted into the pharmacological activity of *Strychnos* alkaloids as a collective (Ohiri *et al.*, 1983; Frédéric *et al.*, 1999; Philippe *et al.*, 2005) and the strychnine molecule as a basis for the evolution of a wide range of strychnine-like drugs (Jensen *et al.*, 2006), I used the toxicology and pharmacology of strychnine itself as the basis for all the comparative analyses completed as part of the fourth and fifth objectives of the study.

The third objective of this study was to investigate, document and translate the indigenous understanding and use of *Strychnos henningsii* as a traditional medicine (designated in the thesis as *umqalothi*), as derived from semi-structured interviews of eight Zulu traditional healers living and working in KwaZulu-Natal.

The semi-structured interviews of four *izinyanga* and four *izangoma* yielded extremely rich and informative data. In our identification of healers for interview, my consideration of the questions to be presented to healers and the attitude and mode of enquiry (as described in section 3.4), I sought to maximise the spontaneity of the oralate communication, to decrease the impact of ‘colonisation’ on the interview dynamic and to minimise the influence of preconception and cultural imposition.
From the data derived from the recorded isiZulu interviews I was able to identify the Zulu understanding of *umqalothi* as emphasising the bitterness of the bark as an important therapeutic attribute, as well as a broader appreciation of the medicinal plant as a potent means of overcoming unseen malevolent forces, and as a means of connecting individuals, and traditional healers in particular, to the ancestral realm. The bark has a valued role in the initiation rite, *ukwethwasa*, and as an ingredient in a wide range of potent medicinal complexes of various descriptions. I was able to confirm the use of *umqalothi* as a purgative and anthelmintic (Hutchings *et al.*, 1996; van Wyk *et al.*, 2009) and as a treatment of abdominal pain, colic, various muscular pains, including dysmenorrhoea and rheumatism, type 2 diabetes, snakebite and syphilis (Hutchings *et al.*, 1996; de Ruijter, 2008; Njoroge and Bussmann, 2009; van Wyk *et al.*, 2009).

Whilst I was further able to confirm the exclusive therapeutic use of root- and stem bark, and their administration by chewing, as a pulverised bark or as a decoction, I was also able to identify the use of *umqalothi* in the treatment of headaches, hypertension, debility and wasting, poor immune function such as one finds in HIV/AIDS, and the undocumented administration of pulverised bark as a snuff (in the treatment of headaches), by licking and as an addition to porridge. I was unable to adequately define an isolated, poorly-described and seemingly ‘cautious’ description of the use of *umqalothi* as an enema.

*The fourth objective* of this study was to interrogate homoeopathic proving methodology as a coherent mode of scientific investigation in terms of the quality and consistency of subjective and objective data sets, the relationship of these to each other, and their relationship to existing homoeopathic materia medica.

In my evaluation and reflection upon the data arising from the implementation of the homoeopathic proving methodology (including the pathological blood tests), I made a number of observations that suggest that the methodology
indeed does represent a coherent mode of scientific investigation. These observations related to the quality of verum prover data relative to placebo prover data, the correlation between subjective and objective data in the verum group, evidence (albeit anecdotal) in support of homoeopathic treatment responses within the objective data set, and high levels of relationship between the *Strychnos henningsii* data and the corresponding data of existing homoeopathic remedies from the *Loganiaceae* botanical family.

In a comparison of the nature and distribution of verum and placebo journal entries [see Table 5], I found that the verum group produced a much larger number of symptoms, as well as symptoms that were both more distinctly different from pre-administration symptoms and more detailed in their description. Furthermore I was able to demonstrate a general correlation between the subjective symptom evolution within the proving experiment and the emergence of significant ‘treatment effects’ within the objective data set. Whilst I was unable to demonstrate point-for-point correlations for all verum provers, I was able to identify high levels of point-for-point correlation for a number of sensitive provers [Provers 1, 4, 9, 11, 14, 20 and 23]. I was also able to demonstrate instances of ‘homoeopathic aggravation’ and resolution in four provers who had abnormally elevated baseline levels of five different blood indices demonstrated to be statistically significantly affected by *Strychnos henningsii 30CH*. I was unable to identify similar phenomena and relationships within the placebo data sets.

In my analysis of the independently-determined *Strychnos henningsii* rubrics, relative to those of existing *Loganiaceae* remedies [see Tables 19 and 20], I found a respective overlap of 62.8 percent and 48.7 percent with the remedies, *Nux vomica* and *Ignatia amara*, and that 39.7 percent of *Strychnos henningsii* rubrics were to be found in at least three (of seven) *Loganiaceae* remedies. There was also a correspondence of *Strychnos henningsii* themes and sensations to those of the botanical family.
The fifth and final objective of this study was to determine the extent to which the proving data related, respectively, to the phytochemical data and the field interview data, in order to appraise homoeopathic proving methodology as a ‘bridge’ between the indigenous and rationalist scientific understandings of the medicinal plant, *Strychnos henningsii*.

The materia medica of *Strychnos henningsii*, as represented by the 581 verbatim journal entries of verum provers, is both a reference to the homoeopathic indications of the medicine (specifically as it is represented in the repertory) and a qualitative record of the subjective experience of individual provers. Whilst the pharmacology and toxicology of strychnine as it is recorded in the scientific literature, and as it would serve as a basis for comparison to the proving data, is relatively ‘undifferentiated’ (in the sense of reading more as a ‘list’ than as a ‘description’), the interview data, as reflected in the translated ‘dialogues’ are highly individualised, rich in metaphor and association, and more akin to the descriptions of homoeopathic symptomatology one finds in materia medica.

I therefore chose to employ the juxtaposition of respective written texts as the basis for comparison of the indigenous and homoeopathic understandings of the medicinal plant, *Strychnos henningsii*, and comparison of repertorial entries and a ‘listing’ of strychnine toxicological data as the basis for comparison of the rationalist-scientific and homoeopathic understandings. I was greatly assisted in this comparison by the fact that the alkaloid, strychnine, already exists as a homoeopathic remedy (based upon 161 toxicological reports and other records of ingestion of crude doses), and therefore has a materia medica ‘picture’, to supplement other sources, and a complete set of repertorial entries.
In these comparisons I found a number of overlaps between *Strychnos henningsii* and strychnine, both in terms of repertorial overlap and toxicological manifestations, and a striking overlap between *verbatim* proving data and the traditional healers’ interview text. In the repertorial comparison with *Strychninum*, I found that 15.1 percent of *Strychnos henningsii* rubrics were to be found in *Strychninum*, and that there was a correspondence of repertorial chapters in which *Strychninum* and *Strychnos henningsii* had the highest representation [see Table 26]. I was further able to identify correspondences between certain mental and general symptoms associated with strychnine toxicology and the materia medica of *Strychnos henningsii* [see section 5.3.3.1].

Similarly, I found a high level of correspondence between the subjective proving data of *Strychnos henningsii* (as would be the exclusive product of the routine implementation of homoeopathic proving methodology) and the indigenous understanding of *umqalothi* as described by the interviewees. I found striking similarities in the descriptions of abdominal pain, nausea and vomiting, headaches, diabetes and dysuria, effects on the liver, debility, weakness and depression of the immune system and generalised cramping [see section 5.4.4.1]. Of significance to the appraisal of homoeopathic proving methodology as a bridge between the indigenous and rationalist-scientific understandings of medicinal plants, I also found striking similarities between the mind and dream symptoms of *Strychnos henningsii* and the metaphysical understanding of *umqalothi* described by healers [see section 5.4.4.2].

6.2.2 THE APPRAISAL OF PROVING METHODOLOGY AS A BRIDGE

In my conceptualisation of homoeopathic proving methodology as a bridge between the indigenous and rationalist-scientific paradigms, I believed it was important, firstly, to determine the integrity of the ‘bridge’ (i.e. proving methodology) as a ‘structure’, and secondly to examine the degree to which it
‘straddles’ the two polarities of the indigenous and rationalist-scientific paradigms and their respective understandings of medicinal plants. The exploration of the ‘degree of straddle’ would include both the extent to which the homoeopathic paradigm ‘overlaps’ with the paradigms it is proposed to bridge, and the extent to which the ‘content’, as represented by the Strychnos henningsii proving data itself, overlaps with the ‘content’ arising (as products of the paradigmatic view) from the pharmacological and toxicological understanding of strychnine and the indigenous understanding of umqalothi, respectively.

In viewing homoeopathic proving methodology as a bridge between the indigenous and rationalist-scientific understandings of medicinal plants, it is also implied that the indigenous and rationalist-scientific understandings of the medicinal plant, Strychnos henningsii, will each demonstrate features and insights that are not to be found within the homoeopathic understanding. I have therefore, within this appraisal, also explored the extent to which the homoeopathic ‘totality’ did not represent a ‘complete’ understanding of the medicinal plant.

6.2.2.1 The ‘Integrity’ of the Bridge

The various analyses of proving data, as they arose from the implementation of the proving methodology adopted in this study and my subsequent exploration of relationships within and between respective data sets, as I have discussed them within the context of the fourth objective of the study, provide a strong argument in favour of the ‘integrity’ of homoeopathic proving methodology as a robust and internally coherent mode of scientific investigation, that yields subjective symptomatology which is able to be objectively verified, and which is able to be closely correlated to corresponding data relating to existing homoeopathic remedies. That the mechanism by which proving symptomatology is able to be induced in healthy human subjects is elusive, and presently a scientific conundrum,
does not negate the high levels of order and predictability I have observed, and demonstrated within this thesis.

6.2.2.2 The ‘Degree of Straddle’

In the review of the literature I elucidated the nature of each of the three paradigms under comparison within this thesis in terms of their respective epistemologies, ontologies and axiologies. The TAM paradigm is a highly integrated and holistic paradigm in which body, mind, spirit, and all that ‘is’ interact in a complex dynamic infused with ‘spirit’, and in which knowledge derives from multiple and complex empirical sources. By contrast, the ‘scientific’ paradigm that characterises the ‘modern’ understanding of medicinal plants is fundamentally reductionist and employs a predominantly Newtonian and linear ‘biomedical’ model of disease.

Within this reductionist view the plant is understood as a substrate for the identification and harvesting of pharmacologically-active chemical entities having discrete effects on specific entities and pathways within that biomedical understanding. That the ‘scientific’ investigation of African traditional medicines is therefore largely focused upon the identification and isolation of chemical entities, that the effects of traditional medicines being sought to be explained in terms of the biomedical model, and that a wealth of TAM experience should be lost to some ‘unscientific’ and ‘superstitious’ scrapheap are inevitable consequences of a failure of researchers to bridge the paradigmatic ‘gap’ (Okpako, 2009; Sahoo et al., 2010).

The homoeopathic paradigm, with its inclusive world view, its strongly empirical base, its emphasis on subjective experience, and its incorporation into its epistemology of many elements of overtly ‘scientific’ modes of investigation, I believe, represents a means of reconciliation, a ‘middle ground’ in which the ‘truths’ of both paradigms may find verification.
In this thesis I have demonstrated that the understanding of *Strychnos henningsii* derived from the implementation of a homoeopathic proving methodology, evidenced considerable overlaps with the toxicology and pharmacology of strychnine (as a central ‘chemical entity’ within the ‘scientific’ understanding of *Strychnos henningsii*), as well as considerable and striking overlaps with the indigenous understanding of *umqalothi*.

Within this exploration and demonstration, I was particularly interested to note that whereas the pharmacological and toxicological understanding of strychnine was largely focused on physical and some notable mental symptoms, the homoeopathic ‘totality’ [see Figure 37 above], as represented by the proving data, spanned the entire range of body, mind and spirit ‘symptoms’ described within the indigenous understanding of *umqalothi*. This was confirmed further by the observation within the *Mappa Mundi* analyses of
**Strychnos henningsii**, *Umqalothi* and *Strychninum* that the interplay of ‘elemental forces’ within *Strychnos henningsii* was the same as that of *umqalothi*, but that this was only partially represented within the analysis of *Strychninum*.

### 6.2.2.3 The Deficiencies of the Homoeopathic ‘Totality’

Notwithstanding the evident degree to which homoeopathic proving methodology ‘straddled’ the indigenous and rationalist-scientific understandings of the medicinal plant, *Strychnos henningsii*, it was clear that the homoeopathic ‘totality’ did not represent a ‘complete’ picture. Whilst I was able to demonstrate that a significant number of TAM applications of the plant were, in fact, homoeopathic, there were also applications that were not reflected within the proving data, and attributable either to the pharmacological action of strychnine or strychnine-like compounds, or to the pharmacological action of other (unidentified) compounds within the bark.

Similarly, I was able to demonstrate that whilst detailed analyses of the proving data allowed for the possible identification of well-defined chemical entities (in this case, strychnine), these same analyses were inadequate for the specific identification of related chemical compounds (e.g. henningsiine) and were insufficient for the identification of other poorly-defined pharmacologically active compounds (e.g. flavonoids).

Whilst my own observation of the use of plant medicines within TAM suggests that ‘homoeopathic’ (in terms of both indication and dosage) application is widespread, this has not been scientifically demonstrated. To the extent that the traditional application of a medicinal plant is less ‘homoeopathic’, and increasingly based upon a direct pharmacological action, the evidence of ‘straddle’ would be less than I have demonstrated in this study.
6.3 THE RECOMMENDATIONS

This thesis documents a complex inter-paradigmatic study in which various forms of quantitative and qualitative data were derived within three distinct research contexts, in two different languages, and using a range of data-capturing methodologies and analytical tools. As such it was important to ensure that data was captured with as little ‘distortion’ as possible, that the data text should be retained within its con-text, and that I, as observer-researcher, should endeavour to remain as ‘neutral’ in my observation and analysis as possible. I believe that I have enjoyed considerable success in the achievement of these imperatives. I offer the following reflections on the study as recommendations for future research of a similar nature:

6.3.1 HOMOEOPATHIC PROVING METHODOLOGY

- I recommend that further provings of *Strychnos henningsii*, in potencies other than the 30CH, and clinical application of the remedy would confirm, and possibly expand, the materia medica as defined within this study;
- The influence of pathological blood testing on the proving experiment is impossible to determine. Whilst I contend, on the basis of the coherency of the resultant data, that there was no deleterious impact, I would advise further research seeking to explore the effect, if any, that the incorporation of an ‘objective arm’ may have on the evolution and nature of subjective proving data.
- Whilst the triple-blind design and inclusion of a 50 percent placebo group were necessary features of this study, I believe that neither the triple-blind design nor the relatively large placebo population yielded any discernible advantage, in terms of the quality and ease of discrimination of data, over the more commonly employed double-blind design with a 20 percent placebo group.
• The smooth progress and high levels of prover compliance, evident in this proving of *Strychnos henningsii* were related to a number of factors that I recommend be incorporated into future provings:

1. A pre-proving training workshop
2. A fixed initiation date for the proving experiment, with staggered commencement for small groups of provers
3. Clear supervisor and prover schedules
4. Frequent supervisor-prover contact
5. Regular meetings between proving supervisors
6. A post-proving workshop for verum provers

• Whilst the ethnicity of provers did not appear to have a significant impact on proving data in this study, I would recommend more focussed research into the impact of ethnicity on proving data.

• The inclusion of objective blood measures within this proving yielded a number of insights worthy of confirmation and further investigation. In particular I would recommend the inclusion of relevant blood measures in the provings of toxic base substances such as snake venoms, as a means of exploring and verifying the capacity of microdoses to induce objective changes in healthy human beings, as well as ‘re-proving’ remedies with well-documented (but not objectively verified) pathotropism, as a means of verifying such pathotropism objectively, and of accurately defining the nature of the remedial action in terms of defined clinical parameters.

6.3.2 PHYTOCHEMICAL ANALYSIS

• The phytochemical data derived within the parameters of this study were sufficient for generalised comparison, but were neither extensive nor sufficiently sensitive for a more comprehensive exploration of the relationship between the homoeopathic and rationalist scientific paradigms. Future studies of this nature should include more
extensive phytochemical analyses, and more sensitive modern analytical techniques such as LC-Nuclear Magnetic Resonance spectroscopy or HPLC-Electrochemical detection.

6.3.3. INVESTIGATION OF TRADITIONAL KNOWLEDGE

- The adoption of a semi-structured interview methodology and employment of a mother-tongue interviewer who was skilled in the posing of a well-considered and finite set of open-ended questions were critical to the quality of the interview data. Whilst it is difficult to define the subtle factors which contributed to the extraordinary clarity of interview data, I would recommend that future studies of a similar nature be modelled closely on the considerations and strategies adopted within this study.

- In this study I encountered certain difficulties with respect to the transcription and translation of oral text data. In future studies I recommend that, as far as possible the individuals involved in both the transcription and translation processes should be both sensitive observers (in terms of capturing subtle gestural cues) and both highly literate and highly orale.

- The external verification of the accuracy, appropriacy and consistency of both transcriptions and translations is strongly recommended within future investigations of indigenous knowledge which are by their nature prone to misinterpretation and/or misrepresentation. Such verification should ideally be derived from the original source.

- In this study I have found the use of qualitative software, such as NVivo® 9, to be extremely useful, enlightening and time-sparing. Whilst I recommend the use of such software as a means of making qualitative data analysis less time-consuming, more manageable and more accurate, I advise caution against what I have observed as a tendency for such use to fragment and decontextualise data.
6.3.4 CROSS-PARADIGMATIC INVESTIGATION

I believe that my capacity to have conducted this study bears a direct relationship to my personal engagement with, my detailed reflection upon, and my professional need to delineate and integrate the epistemologies and ontologies of the rationalist-scientific, homoeopathic and traditional African paradigms over an extended period of time. I recognise that I am in a relatively unique and fortunate position.

In my reflection upon the investigation of indigenous knowledge systems and the scientific investigation of traditional African medicinal plants, I recognise the ease with which we may become ‘victims’ of our own worldview. Both the homoeopathic and TAM paradigms find themselves outside of the predominant ‘scientific’ view, and both medical systems are being viewed, and are pressured to ‘explain themselves’, in terms of that view. In my detailed exploration of three paradigmatic understandings of a single medicinal plant, \textit{Strychnos henningsii}, I conclude that there is a tremendous amount to be learnt from the respectful synthesis of three equal ‘truths’; that the understanding of medicine, health and disease is enriched by inter-paradigmatic investigation such as I have undertaken; and that the employment of homoeopathic proving methodology as a mode of investigation of African medicinal plants may indeed serve as a bridge within that process of synthesis and collective understanding.

\textit{It is enough for me to contemplate the mystery of conscious life perpetuating itself through all eternity, to reflect upon the marvellous structure of the universe which we can dimly perceive and to try humbly to comprehend even an infinitesimal part of the intelligence manifested in Nature.}

\textit{Albert Einstein}

\textit{(Calaprice, 2005: 200-201)}


Upfold, G. 2010a. *Strychnos henningsii - Dlinza 1* [photograph] [Personal communication, 06 October 2010].

Upfold, G. 2010b. *Strychnos henningsii - Dlinza 2* [photograph] [Personal communication, 06 October 2010].

van Wyk, B-E. 2009. *Bark of Strychnos henningsii* [photograph].


An Appraisal of Homoeopathic Proving Methodology as a Bridge between the Indigenous and Rationalist-Scientific Understandings of Medicinal Plants: The Case of Strychnos henningsii

by

Ashley Hilton Adrian Ross

VOLUME II

Submitted in fulfillment of the requirements of the degree of Doctor of Technology: Homoeopathy in the Faculty of Health Sciences at the Durban University of Technology.

I, Ashley Hilton Adrian Ross, do hereby declare that this thesis is representative of my own work, both in conception and execution.

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Signature of Student                                      Date of signature

APPROVED FOR FINAL SUBMISSION

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Signature of Promoter                                     Date of signature
Prof. Joan Lucy Conolly
BA; BA Hons (English); BA Hons (Linguistics); MA (Orality-Literacy Studies) cum laude; PhD (Orality-Literacy Studies); UED

---------------------------------------------------------  ---------------------
Signature of Co-Promoter                                   Date of signature
Prof. Steven Barry Kayne
BSc Hons (Pharmacy); PhD (Pharm. Tech.); MBA; Dip. Agric. and Vet. Pharm.; Dip. Nutrition; LLM; MSc (Sports Med) FFHom
## APPENDIX A: Ethical Clearance Certificate

### ETHICS CLEARANCE CERTIFICATE

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<th>Dr A H A Ross</th>
<th>Student No</th>
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<tr>
<td>Ethics Reference Number</td>
<td>FHSEC 011/09</td>
<td>Date of FRC Approval</td>
<td>21 April 2009</td>
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<tr>
<td>Qualification</td>
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In terms of the ethical considerations for the conduct of research in the Faculty of Health Sciences, Durban University of Technology, this proposal meets with institutional requirements and confirms the following ethical obligations:

1. The researcher has read and understood the research ethics policy and procedures as endorsed by the Durban University of Technology, has sufficiently answered all questions pertaining to ethics in the DUT 186 and agrees to comply with them.
2. The researcher will report any serious adverse events pertaining to the research to the Faculty of Health Sciences Research Ethics Committee.
3. The researcher will submit any major additions or changes to the research proposal after approval has been granted to the Faculty of Health Sciences Research Committee for consideration.
4. The researcher, with the supervisor and co-researchers will take full responsibility in ensuring that the protocol is adhered to.
5. The following section must be completed if the research involves human participants:

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provision has been made to obtain informed consent of the participants</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Potential psychological and physical risks have been considered and minimised</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Provision has been made to avoid undue intrusion with regard to participants and community</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Rights of participants will be safe-guarded in relation to:</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>- Measures for the protection of anonymity and the maintenance of confidentiality.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>- Access to research information and findings.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>- Termination of involvement without compromise</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>- Minimising any risk arising beyond the limits of the research</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

21 April 2009

21 April 2009

23 April 2009

23 April 2009

FACULTY OF HEALTH SCIENCES ETHICS CLEARANCE CERTIFICATE/09/2009 Faculty Approved Document
Methods of Preparation  
[German Homoeopathic Pharmacopoeia (Benyunes, 2005: 36-39)]

i) Method 6: Triturations

Preparations made according to Method 6 are triturations of solid basic drug materials with lactose as the vehicle unless otherwise prescribed. Triturations up to and including the 4th dilution are triturated by hand [or machine] in a ratio of [1 to 10 (decimal dilution) or] 1 to 100 (centesimal dilution). Unless otherwise stated, the basic drug materials are reduced to the particle size given in the Monograph (Mesh aperture). Quantities of more than 1 000g are triturated by mechanical means.

The duration and intensity of trituration should be such that the resulting particle size of the basic drug material in the 1st [decimal or] centesimal dilution is below 10µg at 80 percent level; no drug particle should be more than 50µg.

Triturations up to and including the 4th [decimal or] centesimal are produced at the same duration and intensity of trituration.

Trituration by hand:

Divide the vehicle [lactose 19.800g] into three parts and triturate the first part [6.600g] for a short period in a porcelain mortar. Add the basic drug material [0.200g] and triturate for 6 minutes, scrape down for 4 minutes with a porcelain spatula, triturate for a further 6 minutes, scrape down again for 4 minutes, add the second part [6.600g] of the vehicle and continue as above. Finally add the third part [6.600g] and proceed as before. The minimum time required for the whole process will thus be 1 hour. The same method is followed for subsequent dilutions.

[For triturations above the 4x or 4c dilute 1 part of the dilution with 9 parts of lactose or 99 parts of lactose as follows: in a mortar, combine one third of the required amount of lactose with the whole of the previous dilution and mix until homogeneous. Add the second third of the lactose, mix until homogeneous, and repeat for the last third.]

[Trituration by machine: – not applicable]
ii) **Method 8a: Liquid preparations made from triturations**

Preparations made by Method 8a are liquid preparations produced from triturations made by Method 6.

*To produce a 6x liquid dilution, 1 part of the 4x trituration is dissolved in 9 parts of water and succussed. 1 part of this dilution is combined with 9 parts of ethanol 30 percent to produce the 6x liquid dilution by succussion. In the same way, the 7x liquid dilution is made from the 5x trituration, and the 8x liquid dilution from the 6x trituration. From the 9x upwards, liquid decimal dilutions are made from the previous decimal dilution with ethanol 43 percent in a ratio of 1 to 10.*

To produce a 6c liquid dilution, 1 part of the 4c trituration is dissolved in 99 parts of water and succussed. 1 part of this dilution is combined with 99 parts of ethanol 30 percent to produce the 6c liquid dilution by succussion. *In the same way, the 7c liquid dilution is made from the 5c trituration, and the 8c liquid dilution from the 6c trituration.* From the 9c upwards, liquid centesimal dilutions are made from the previous centesimal dilution with ethanol 43 percent in a ratio of 1 to 100.

*The 6x, 7x, 6c, 7c liquid dilutions produced from the above method must not be used to produce further liquid dilutions.*

**Modified Method 8a:**

To produce a 4CH liquid dilution, 1 part [0.200g] of the 3c trituration is dissolved in 49 parts [9.800g] of water and dissolved. To this is added 50 parts [10.000g] of ethanol 60% percent. This mixture is succussed to produce the 4c liquid dilution. 1 part of this dilution [30µl] is combined with 99 parts of ethanol 96 percent [2.970ml] to produce the 5CH liquid dilution by succussion. From the 6CH upwards, liquid centesimal dilutions are made from the previous centesimal dilution with ethanol 96 percent in a ratio of 1 to 99.

*a) *[italics]* indicates portions of the methods which are not applicable to the preparation of *Strychnos henningsii 30CH.*

*b) *[bold italics]* indicates specific detail applicable to the preparation of *Strychnos henningsii 30CH.*
Homoeopathic Proving

The homoeopathic Proving is the foundation of the Homoeopathic Art - in that, through Proving we discover new medicines and are able to improve the effectiveness of treatment. Over the past decade, the Department of Homoeopathy at DUT has garnered an international reputation for conducting provings of excellence.

An exciting, new proving of an indigenous South African substance, forming part of a unique Doctoral study, is to commence shortly. You WANT to be part of it!

If you:
• are between 18 and 60 years of age;
• are in a general state of good health;
• have not used the oral contraceptive pill or HRT within the last six months;
• are not pregnant or breastfeeding; and
• are willing and able to follow the proper procedures (including undergoing a case history, physical examination and monitoring blood tests)

Contact:

DR ASHLEY ROSS (HOD: Homoeopathy) on
031-373-2542 / 031-373-2041 / 082-458-6440

Proving commences on 20 June 2009
Suitability for Inclusion in the Proving*

ALL INFORMATION WILL BE TREATED AS STRICTLY CONFIDENTIAL

Surname: ........................................................................................................................................
First Names: ....................................................................................................................................
Age: .......... Sex: M F Telephone: .................................................................................................

PLEASE TICK THE APPROPRIATE ANSWER

Are you between the ages of 18 and 60 years? YES NO

• Are you on or in need of any medication?
  Chemical /allopathic YES NO
  Homoeopathic YES NO
  Other YES NO

• Have you been on the birth control pill or hormone replacement therapy in the last 6 months? YES NO

• Are you pregnant or breastfeeding? YES NO

• Have you had surgery in the last six weeks? YES NO

• Do you use recreational drugs such as cannabis, LSD or Ecstasy (MDMA)? YES NO

• Do you consume more than:
  Two measures of alcohol per day? YES NO
  (1 measure = 1 tot spirit / 1 beer / ½ glass of wine)
  10 cigarettes per day? YES NO
  3 cups of coffee or tea per day? YES NO

• Do you consider yourself to be in a general state of good health? YES NO

• If you are between the ages of 18 and 21 years do you have consent from a parent/ guardian to participate in this proving? YES NO

• Are you willing to follow the proper procedures for the duration of the proving (including journal-keeping, consultations with your supervisor and blood tests)? YES NO

*This appendix has been adapted from Wright, C. (1999) A Homoeopathic Drug Proving of * Bitis arietans arietans. *
Informed Consent Form*

TO BE COMPLETED IN TRIPLICATE BY THE PROVER

Working Title of Research Project:
A homoeopathic drug proving of XXX 30CH

Name of Supervisor:
Dr Ashley H.A. Ross [M.Tech.Hom. (TN) B.Mus. cum laude (UCT)]

Names of Master's Research Students:
Ms Melanie Naidoo
Ms Irfana Lockhat
Ms Nerisha Naidoo
Ms Poonam Maharaj

PLEASE TICK THE APPROPRIATE ANSWER

1. Have you read the Research Information Sheet? **YES NO**
2. Have you had an opportunity to ask questions regarding this proving? **YES NO**
3. Have you received satisfactory answers to your questions? **YES NO**
4. Have you had an opportunity to discuss the proving? **YES NO**
5. With whom have you spoken? __________________________
6. Do you believe you have received enough information about this proving? **YES NO**
7. Do you understand the implications of your involvement in this proving? **YES NO**
8. Do you understand that you are free to withdraw from this proving:
   at any time; **YES NO**
   without having to give a reason for withdrawing, **YES NO**
   and without affecting your future healthcare? **YES NO**
9. Do you agree to voluntarily participate in this study (including blood tests)? **YES NO**
10. To participate in this proving you must meet all the inclusion criteria. These are as follows:

- You must be between the ages of 18 and 60 years of age;
- must not need any medication, including chemical, allopathic, homoeopathic or other;
- must not be on, or have been on the contraceptive pill or hormone replacement therapy in the last 6 months;
- must not be pregnant or breastfeeding;
- must not have had surgery in the last 6 weeks;
- must not use recreational drugs such as cannabis, LSD or Ecstasy (MDMA);
- must not consume more than two measures of alcohol per day;
- must not smoke more than 10 cigarettes a day;
- must not consume more than 3 cups of coffee or tea a day;
- must be in a general state of good health;
- if you are between the ages of 18 and 21, years you must have consent from a guardian/parent to participate in the proving; and
- must be willing to follow the proper procedure for the duration of the proving.

Have you completed Appendix D which outlines in detail all of the inclusion criteria above

YES  NO

Additional notes:

1. **Discomfort:**
   Discomfort may be experienced as a result of participating in the proving. It is observed from previous homoeopathic provings that any discomfort experienced is generally of a transitory nature, and complete recovery is usual. Over the course of the proving you will be subjected to four batches of blood tests, requiring the drawing of a small volume of blood from a prominent vein in one of your arms.

2. **Benefits:**
   a) It has been postulated that each proving undertaken strengthens bodily vitality. Many provers report higher levels of mental and physical energy, and increased resistance after participation in homoeopathic drug proving. The mechanisms responsible for this perceived benefit are unclear.
   b) Provers learn and develop the skill of astute observation, and gain homoeopathic knowledge through direct involvement in the proving process; and
   c) Provers may be cured of certain ailments where the remedy being proved corresponds closely to the prover’s pre-proving state.

3. There is no expense to the prover for participating in the proving and no remuneration is offered to the prover.
4. Every prover is provided with the names and telephone numbers of the research student and the supervisor of the proving, in the event of any questions or difficulties arising:

<table>
<thead>
<tr>
<th>Name:</th>
<th>Office hours:</th>
<th>After hours:</th>
<th>Cellular:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Ashley Ross</td>
<td>(031) 373 2542</td>
<td>(031) 309 2349</td>
<td>082 458 6440</td>
</tr>
<tr>
<td>Melanie Naidoo</td>
<td>(031) 373 2041</td>
<td></td>
<td>072 792 2698</td>
</tr>
<tr>
<td>Irfana Lockhat</td>
<td>(031) 373 2041</td>
<td></td>
<td>082 463 1327</td>
</tr>
<tr>
<td>Nerisha Naidoo</td>
<td>(031) 373 2041</td>
<td></td>
<td>083 307 5761</td>
</tr>
<tr>
<td>Poonam Maharaj</td>
<td>(031) 373 2041</td>
<td></td>
<td>072 509 2681</td>
</tr>
</tbody>
</table>

N.B.: If you have answered “NO” to any of the above, please seek additional information before signing.

If the prover is between 18 and 21 years of age, written consent from a guardian/parent is required for the prover to participate in the proposed research:

I, ________________________________ (guardian/parent) hereby consent to the proposed procedures associated with participation of ________________________________ (prover) in the above-mentioned research project.

Signature: __________________ Date: ________________

I, ________________________________ (prover) hereby consent to the proposed procedures associated with my participation in the above-mentioned research project.

Signature: __________________ Date: ________________

WITNESS:
Name _____________________________ Signature: __________________

RESEARCH STUDENT:
Name _____________________________ Signature: __________________

SUPERVISOR:
Name _____________________________ Signature: __________________

*This appendix has been adapted from Wright, C. (1999) A Homoeopathic Drug Proving of *Bitis arietans arietans*. 
Case History Sheet*

**ALL INFORMATION WILL BE TREATED AS STRICTLY CONFIDENTIAL**

**PROVER NUMBER:**

<table>
<thead>
<tr>
<th>Name:</th>
<th>Sex:</th>
<th>Date of Birth:</th>
<th>Age:</th>
<th>Children:</th>
<th>Occupation:</th>
<th>Marital Status:</th>
</tr>
</thead>
</table>

1. **Past Medical History:**
(Please list previous health problems and their approximate dates:)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Do you have a history of any of the following? **[Please tick relevant blocks]**

- Cancer
- HIV
- Parasitic infections
- Glandular fever
- Bleeding disorders
- Eczema/ Skin conditions
- Warts
- Asthma
- Pneumonia/ Chronic bronchitis
- Tuberculosis
- Boils/ Suppurative tendency
- Smoking
- Oedema/ Swelling
- Haemorrhoids

2. **Surgical History:**
(Please list any past surgical procedures [e.g. tonsils, warts, moles, appendix etc.] and their approximate dates:)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

APPENDIX F(i): Case History Sheet
3. **Family History:**

Is there a history of any of the following within your family?
*(including siblings, parents and grandparents)*

<table>
<thead>
<tr>
<th>Condition</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular disease</td>
<td>☐</td>
</tr>
<tr>
<td>Cerebrovascular disease</td>
<td>☐</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>☐</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>☐</td>
</tr>
<tr>
<td>Mental illness</td>
<td>☐</td>
</tr>
<tr>
<td>Cancer</td>
<td>☐</td>
</tr>
<tr>
<td>Epilepsy</td>
<td>☐</td>
</tr>
<tr>
<td>Bleeding disorders</td>
<td>☐</td>
</tr>
</tbody>
</table>

Please list any other medical conditions within your family:

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
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<tbody>
<tr>
<td></td>
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</tbody>
</table>

4. **Background Personal History:**

**Allergies:**

**Vaccinations:**

**Medication (including supplements):**

**Estimation of daily consumption:**

*Alcohol:*

*Cigarettes:*
5. **Generalities:**

*Energy*: Describe your energy levels on a scale from 1 to 10, where 1 is the lowest and 10 is the highest.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>

*Sleep:*
*Quantity:*
*Quality:*
*Position:*

*Dreams:*

*Time modalities:*

<table>
<thead>
<tr>
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<th>&gt;</th>
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</table>

*Weather modalities*

<table>
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</table>

*Temperature modalities:*

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</table>

*Perspiration:*

*Appetite:*

<p>| | |</p>
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</table>

*Cravings*  
*Aversions*  
<  
>  

*Thirst:*

---
Bowel habits:


Urination:


Menstrual cycle and menses:

<table>
<thead>
<tr>
<th>Menarche: yrs</th>
<th>Regular</th>
<th>Irregular</th>
<th>Pre-menstrual:</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMP:</td>
<td>Interval: days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature of bleed:</td>
<td>Duration: days</td>
<td></td>
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<td></td>
<td></td>
<td>Meno-</td>
<td>Metro-</td>
</tr>
</tbody>
</table>


6. Head-to-toe and Systems Overview:

Head:


Eyes and Vision:


Ears and Hearing:


Nose and Sinuses:


Mouth, Tongue and Teeth:


Throat:

________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________

Respiratory System:

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________________________________________________________
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Cardiovascular System:

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Gastro-intestinal System:

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Urinary System:

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Genitalia and Sexuality:

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Musculoskeletal System:

________________________________________________________
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Extremities:

Upper:

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________________________________________________________

Lower:

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Sk

Hair and Nails:

Other:

7. Psychic Overview:

<table>
<thead>
<tr>
<th>Disposition:</th>
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<thead>
<tr>
<th>Fears:</th>
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<table>
<thead>
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<th>Relationships:</th>
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<table>
<thead>
<tr>
<th>Social interaction:</th>
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<thead>
<tr>
<th>Ambition / Regret:</th>
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<table>
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<tr>
<th>Hobbies/Interests:</th>
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</tbody>
</table>
8. The Physical Examination:

a) Physical Description

<table>
<thead>
<tr>
<th>Frame / Build:</th>
<th>Complexion:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hair colour:</td>
<td></td>
</tr>
<tr>
<td>Eye colour:</td>
<td>Skin texture:</td>
</tr>
</tbody>
</table>

b) Vital Signs

<table>
<thead>
<tr>
<th>Height:</th>
<th>m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight:</td>
<td>kg</td>
</tr>
<tr>
<td>Pulse rate:</td>
<td>beats/min</td>
</tr>
<tr>
<td>Respiratory rate:</td>
<td>breaths/min</td>
</tr>
<tr>
<td>Temperature:</td>
<td>°C</td>
</tr>
<tr>
<td>Blood Pressure:</td>
<td>/ mmHg</td>
</tr>
</tbody>
</table>

c) Findings on Physical Examination [Tick positive blocks]

<table>
<thead>
<tr>
<th>Jaundice</th>
<th>Oedema</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaemia</td>
<td>Lymphadenopathy</td>
</tr>
<tr>
<td>Cyanosis</td>
<td>Hydration</td>
</tr>
<tr>
<td>Clubbing</td>
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</tr>
</tbody>
</table>

Specific System Examinations

Consultation Date:  Signature:
# Case History Sheet*

**ALL INFORMATION WILL BE TREATED AS STRICTLY CONFIDENTIAL**

## PROVER NUMBER:  

<table>
<thead>
<tr>
<th>Name:</th>
<th>Sex:</th>
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<td></td>
<td>M/F</td>
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<th>Date of Birth:</th>
<th>Age:</th>
<th>Children:</th>
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<th>Occupation:</th>
<th>Marital Status:</th>
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## 1. Background Personal History:

**Allergies:**

__________________________________________________________

**Vaccinations:**

__________________________________________________________

**Medication (including supplements):**

__________________________________________________________

**Estimation of daily consumption:**

**Alcohol:**

__________________________________________________________

**Cigarettes:**

__________________________________________________________

## 5. Generalities:

**Energy:**  
Describe your energy levels on a scale from 1 to 10, where 1 is the lowest and 10 is the highest.

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<th>1</th>
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**Sleep:**  
**Quantity:**

__________________________________________________________

**Quality:**

__________________________________________________________

**Position:**

__________________________________________________________
**Dreams:**

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**Time modalities:**

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**Weather modalities**

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**Temperature modalities:**

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**Perspiration:**

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**Appetite:**

<table>
<thead>
<tr>
<th>Cravings</th>
<th>Aversions</th>
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**Thirst:**

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**Bowel habits:**

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**Urination:**

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**Menstrual cycle and menses:** *(overleaf)*
Menstrual cycle and menses:

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<tr>
<th>Menarche: yrs</th>
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<th>Irregular</th>
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<td>Nature of bleed:</td>
<td>Duration: days</td>
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Post-menstrual:

Pain:

6. Head-to-toe and Systems Overview:

Head:

---

Eyes and Vision:

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Ears and Hearing:

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Nose and Sinuses:

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Mouth, Tongue and Teeth:

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Throat:

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Respiratory System: (overleaf)
Respiratory System:

Cardiovascular System:

Gastro-intestinal System:

Urinary System:

Genitalia and Sexuality:

Musculoskeletal System:

Extremities:
Upper:

Lower:

Skin: (overleaf)
### Skin:

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### Hair and Nails:

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### Other:

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### 7. Psychic Overview:

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<th>Hobbies/Interests:</th>
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8. The Physical Examination:

d) Physical Description

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<td>Complexion:</td>
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<td>Eye colour:</td>
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<td>Skin texture:</td>
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e) Vital Signs

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<td>Height:</td>
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<td>Weight:</td>
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<td>Pulse rate:</td>
<td>beats/min</td>
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<tr>
<td>Respiratory rate:</td>
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<tr>
<td>Blood Pressure:</td>
<td>/ mmHg</td>
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e) Findings on Physical Examination  

[Tick positive blocks]

- Jaundice
- Anaemia
- Cyanosis
- Clubbing
- Oedema
- Lymphadenopathy
- Hydration

Specific System Examinations

Consultation Date:  
Signature:
Instructions to Provers*

Dear Prover

Thank you very much for taking part in this proving. We are grateful for your willingness to contribute to the advancement and growth of homoeopathic Science, and are sure that you will derive benefit from the experience.

**Before the proving:**

Ensure that you have:

- signed the *Informed Consent Form* *(Appendix E)*;
- had a *case history* taken and a *physical examination* performed;
- attended the pre-proving *training session*;
- an assigned *prover number*, and corresponding *journal*; and
- read and understood these *Instructions*

Your proving supervisor will contact you with the date that you are required to commence the pre-proving observation period, and the date that you are required to start taking the remedy. You will also agree on a daily contact time for the supervisor to contact you. On *Day 3* of the pre-proving observation period you are required to present to a convenient pathology laboratory for a ‘baseline’ set of blood tests. These include a full blood count and a test of liver function.

*Should there be any problems, or anything you do not fully understand, please do not hesitate to call your proving supervisor.*

**Beginning the proving:**

After having been contacted by your supervisor and asked to commence the proving, record your symptoms daily in the diary for one week prior to taking the remedy. This will help you to get into the habit of observing and recording your symptoms, as well as bringing you into familiarity with your normal state. This is an important step as it establishes a baseline for you as an individual prover.

**Taking the remedy:**

Begin taking the remedy on the day that you and your supervisor have agreed upon. Record the time that you take each dose. Time keeping is an important element of the proving.

The remedy should be taken on an empty stomach and with a clean mouth. Neither food nor drink should be taken for a half-hour before and after taking
the remedy. The remedy should not be taken for more than 3 doses a day for three days (9 powders maximum). In the event that you experience symptoms, or those around you observe any proving symptoms, do not take any further doses of the remedy. This is very important.

By proving symptoms we mean:

- **Any new symptom**, i.e. ones that you have never experienced before
- **Any unusual change or intensification of an existing symptom**
- **Any strong return of an old symptom**, i.e. a symptom that you have not experienced for more than one year.

If in doubt phone your supervisor. Be on the safe side and do not take further doses. *Homoeopathic experience has repeatedly shown that the proving symptoms begin very subtly – often before the prover recognises that the remedy has begun to act.*

**Lifestyle during the Proving:**

Avoid all **antidoting factors** such as coffee, camphor and mints. If you normally use these substances, please stop taking them for two weeks before, and for the duration of the proving. Protect the powders you are proving like any other potentised remedy: store them in a cool, dark place away from **strong smelling** substances, **chemicals**, **electrical equipment** and **cellphones**.

A successful proving depends on your recognising and respecting the need for moderation in the following areas: work, alcohol exercise and diet. Try to remain within your usual framework and maintain your usual habits.

Avoid taking **medication** of any sort, including antibiotics and any steroid or cortisone preparations, vitamin or mineral supplements, herbal or homoeopathic remedies.

**In the event of medical or dental emergency of course common sense should prevail.** Contact your doctor, dentist or local hospital as necessary. Please contact your supervisor as soon as possible.

You are required to repeat the initial blood tests on **Day 3, Day 10** and **Day 24** of the proving period. These tests are to track whether there are any changes during the proving period, and to ensure that you end the proving in your original state of health.
Confidentiality:
It is important for the quality and the credibility of the proving that you discuss your symptoms only with your supervisor. Keep your symptoms to yourself and do not discuss them with fellow provers. Your privacy is something that we will protect. Only your supervisor will know your identity and all information will be treated in the strictest confidence.

Contact with your Supervisor:
Your supervisor will telephone you to inform you to begin your one-week observation period, and then daily from the day that you begin to take the remedy. This will later decrease to 2 or 3 times a week and then to once a week, as soon as you and the supervisor agree that there is no longer a need for such close contact. This will serve to check on your progress, ensure that you are recording the best quality symptoms possible and to judge when you need to cease taking the remedy.

If you encounter any problems during the proving, please do not hesitate to call your supervisor.

Recording of Symptoms:
When you commence the proving note down carefully any symptoms that arise, whether they are old or new, and the time of the day or night at which they occurred. This should be done as vigilantly and frequently as possible so that the details will be fresh in your memory. Make a note even if nothing happens.

Please start each day on a new page with the date noted at the top of each page. Also note which day of the proving it is. The day that you took the first dose is day zero.

Write neatly on alternate lines, in order to facilitate the extraction process, which is the next stage of the proving. Try to keep the journal with you at all times. Please be as precise as possible. Note in an accurate, detailed but brief manner your symptoms in your own language.

Information about location, sensation, modality, time and intensity is particularly important.

- **Location:** Try to be accurate in your anatomical descriptions. Simple, clear diagrams may help here. Be attentive to which side of the body is affected.
- **Sensation:** Describe this as carefully and as thoroughly as possible e.g. burning, shooting, stitching, throbbing, and dull etc.
• **Modality:** A modality describes how a symptom is affected by different situations/stimuli. Better (> or worse (<) from weather, food, smells, dark, lying, standing, light, people etc. Try different things out and record any changes.

• **Time:** Note the time of onset of the symptoms, and when they cease or are altered. Is it generally > or < at a particular time of day, and is this unusual for you.

• **Intensity:** Briefly describe the sensation and the effect on you.

• **Aetiology:** Did anything seem to cause or set off the symptom and does it do this repeatedly?

• **Concomitants:** Do any symptoms appear together or always seem to accompany each other, or do some symptoms seem to alternate with each other?

This is easily remembered as:

- **C** - concomitants
- **L** - location
- **A** - aetiology
- **M** - modality
- **I** - intensity
- **T** - time
- **S** - sensation

On a daily basis, you should run through the following checklist to ensure that you have observed and recorded all your symptoms:

- **MIND / MOOD**
- **HEAD**
- **EYES / VISION**
- **EARS / HEARING**
- **NOSE**
- **BACK**
- **CHEST AND RESPIRATION**
- **DIGESTIVE SYSTEM**
- **EXTREMITIES**
- **URINARY ORGANS**
- **GENITALIA**
- **SEX / MENSTRUATION**
- **SKIN**
- **TEMPERATURE**
- **SLEEP**
- **DREAMS**
- **GENERALITIES**

Please give full description of dreams, and in particular note the general feeling or impression the dream left you with.

Mental and emotional symptoms are important, and sometimes difficult to describe – please take special care in noting these.

Reports from friends and relatives can be particularly enlightening. Please include these where possible. At the end of the proving, please make a general summary of the proving: note how the proving affected you in
general; how has this experience affected your health?; would you do another proving?

As far as possible try to classify each of your symptoms by making a notion according to the following key in brackets next to each entry:

- **(RS)** – Recent symptom i.e. a symptom that you are suffering from now, or have been suffering from in the last year.
- **(NS)** – New symptom
- **(OS)** – Old symptom. State when the symptom occurred previously.
- **(AS)** – Alteration in the present or old symptom (e.g. used to be on the left side, now on the right side)
- **(US)** – An unusual symptom for you.

If you have any doubts, discuss them with your supervisor.

Please remember that detailed observation and concise, legible recording is crucial to the proving. One reads in *The Organon of the Medical Art*, paragraph 126:

> The person who is proving the medicine must be pre-eminently trustworthy and conscientious...and be able to express and describe his sensations in accurate terms."

(Hahnemann, 1997: 200)

* Adapted from Sherr, J. *The Dynamics and Methodology of Homoeopathic Provings* (2nd Edition,) 1994

<----------------------------------------------------------------------------------------------------------------------------------------

**Acknowledgement of Understanding**

I, ______________________ agree to participate in the proving outlined in Appendix G (above), and acknowledge that I have read and understand the instructions regarding the proving.

**PROVER:**
Name: ___________________________ Signature: _________________

**WITNESS:**
Name: ___________________________ Signature: _________________

**PROVING SUPERVISOR:**
Name: ___________________________ Signature: _________________

Date: _______________
**WHAT** is a proving?

- Pre-proving 'normal' state (no symptoms)
- Artificial 'dis-eased' proving state ('symptoms')
- Post-proving 'normal' state (no symptoms)

---

**WHY** prove new remedies?

- Adaptive reaction to stimulus
  - Healthy
- Introduce Proved Remedy
  - Diseased
- Efficiency return to baseline state
  - Enhanced
- Healthy

---

**Why THIS proving?**

Dr Ashley Ross: An appraisal of homoeopathic proving methodology as a bridge between the indigenous and rational-scientific understandings of medicinal substances: the case of XXXX.

**MATERIA MEDICA & REPERTORY**

- Toxology
- Nat. history
- Existing MM
- Trad. uses

**Field: Use and understanding**

- Master's
- Master's
- Master's
- Master's

**Field: Use and understanding**

- Master's
**HOW** is this proving different?

- Triple-blind design
- Introduction of objective blood measures

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(Melanie 0727922698)

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(Poonam 0725092681)

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### HOMOEOPATHY STUDY

Investigator to (✓) tick visit required

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Once request form has been logged in, please fax to ATT:
SAMANTHA – 031 304 3608 (F)
### SUPERVISORS' PROVING SCHEDULE (1-8)

[Student Researcher’s Name]

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**Prover 1/2**

- **Pre-proving Observation**
- Blood tests and Administration

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**Cessation of Proving symptoms (2 weeks)**

**Post-proving**

**Prover 3/4**

- **Pre-proving Observation**
- Blood tests and Administration

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**Cessation of Proving symptoms (2 weeks)**

**Post-proving**

**Prover 5/6**

- **Pre-proving Observation**
- Blood tests and Administration

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**Cessation of Proving symptoms (2 weeks)**

**Post-proving**

**Prover 7/8**

- **Pre-proving Observation**
- Blood tests and Administration

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**Cessation of Proving symptoms (2 weeks)**

**Post-proving**

**Observation**

**Post-proving observation**

**Post-proving observation**
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MIND

*Heightened senses*

Feel like senses are acute. Feel happy!!! *02F XX:XX:XX*

Senses are more acute! *02F 01:XX:XX*

Very alert and generally feeling well. *25M 01:XX:XX*

Feel more alert and lively i.e. full of energy. *25M 01:XX:XX*

Woke up with a very active mind. *25M 02:XX:XX*

Increased sensitivity to noise. *04F XX:XX:XX*

Getting very annoyed about my hands smelling of food after cooking or eating. I wash them a few times [RS]. *14F 12:XX:XX*

*Good mood and happiness*

Although am very frustrated with research, I feel lighter and happier than last week. *02F 01:XX:XX*

Fought with my fiancé, but still remained happy. Did not let our argument spoil my mood. *04F 04:XX:XX*

Very good mood this morning! *06F 02:XX:XX*

I feel very positive and not moody. *15F 08:XX:XX*

I’m in a very good mood. *15F 03:XX:XX*

I was very bubbly towards the end of the day. I kept on giggling as if I’m drunk. *15F 04:XX:XX*

Refused to go to my cousin’s funeral because I felt it would be depressing. It seems like I aim to please these days: washed my two sisters’ clothes and even offered to do that. I never do. *23F 04:XX:XX*
In such a good mood, I just feel happy for no reason. 23F 05:XX:XX

Noticed I’m much nicer than usual or showing more affection than usual. Just took my spending money and bought butter to bake for my dad because I felt it is unfair for him to buy them when I can bake them. He didn’t say thank you so had to force him to do so. But (I) was proud of myself. My mother thinks I have a hidden agenda because of this. But no hidden agenda just wanted to do something nice. 23F XX:XX:XX

(I’m) too nice. I even scare myself; made my sister breakfast in bed. 23F 02:XX:XX

Was content today; not too phased by other people around me. (I) was in a good mood and cheerful. 25M 12:XX:XX

In a very good mood. 09F 20:XX:XX

Felt a general uplift in mood. 20F XX:XX:XX

Still feel an upliftment in mood, during the day. 20F 02:XX:XX

Great mood! Had a lovely evening and I’m looking forward to tonight as well. 18F 06:XX:XX

Feel more positive about things; feel happier with life. 02F 14:XX:XX

I think about sex very often. 15F 05:XX:XX

**Confidence**

Increased confidence; was able to go on stage at church for first time. 04F 02:XX:XX

My personality is funny. I think I know everything when we in a group talking. I always want to talk and be listened to – and I always describe people’s personalities. 15F 08:XX:XX
I feel confident in what I do and who I am, at work and out of work. It feels good to be acknowledged. Feel good – not sure if I should feel anything else considering I am on a “drug proving” journey. 30F 09:XX:XX

I feel I can handle anything that comes my way. I managed to process my work before the cut-off time with no errors. (It) gives me a sense of accomplishment. 30F 17:XX:XX

Work has been smooth sailing; nothing that I can’t handle. 30F 20:XX:XX

Had a busy day at work – nothing that I cannot handle. 30F 24:XX:XX

Feeling very good about myself: on top of the world. 30F 26:XX:XX

Feel less irritable. Crying easily, but (I) move on. Not dwelling on things. 02F 12:XX:XX

I went to a practical session of consulting as counsellors. When I was consulting I didn’t connect with my patients. I felt like something was pulling me backwards. I felt bigger than the patient. I felt as if I was higher, and that my patient was as if she was very little (and) down there. 11F 02:XX:XX

**Increased energy and concentration**

Was very energetic and excited. 04F 03:XX:XX

Industrious. 14F 09:XX:XX

Feeling fine and energized. I am in a relaxed and happy mood. 30F 02:XX:XX

I was very hyperactive. 15F 04:XX:XX

I describe people’s personalities. I talk a lot; I describe my personality [talkative during the day]. 15F 06:XX:XX

In the evening around 18h00 I felt weird. Light headed though (having) lots of energy. 18F XX:XX:XX
I can study well. My sleeping patterns are OK. 15F 04:XX:XX

Despite feeling a little ill, I worked well and was able to focus on a project. 25M 10:XX:XX

**Relaxation**

Very much more relaxed and calm than usual. 14F XX:XX:XX

I’m relaxed. 15F 10:XX:XX

Feel relaxed. 20F 03:XX:XX

I feel relaxed and happy. 30F 03:XX:XX

Went to dinner at my sister’s: good to socialize with my extended family. It is good to catch up with all that is happening around us. 30F 21:XX:XX

Feeling relaxed and well rested. 30F 24:XX:XX

Relaxed. I can spend time with my family and dogs this weekend. My dogs love it when we are all at home. You can just sense that they are happy and content and so am I. (I) feel good today that I do not have to rush around. Energy levels are high. 30F 28:XX:XX

I am kind of in a good mood and all relaxed; even though I have lot of test and assignments coming. 15F 01:XX:XX

Anyway this is just me: cool, calm and connected. 30F 29:XX:XX

**Spirituality and connection**

Increased love for fiancé! Spiritually refreshed and re-rooted. 04F 03:XX:XX

Went to church today. (It) was wonderful. I felt God’s presence and it was comforting!!! 04F 04:XX:XX
I look forward to Monday evenings as I attend a spiritual service. It feels so good when you come out of there. (You feel) light hearted, and you feel you are closer to God. 30F 02:XX:XX

Feel like my emotions are distant, like I am less connected to my emotions and the moment. 02F 06:XX:XX

I also feel like I have been distanced from God. I have prayed less and had much less faith that God will look after me! This is very unusual and I hope it does not last long! 02F 06:XX:XX

Dis-connection from mother; distant from her. (02F Prover summary)

Had to go to temple today for a prayer. I sat next to (a) weird woman who seemed to have some sort of mental problem. She kept talking and moaning and crying out to herself. She made me feel so uncomfortable as if she would infect me or something. It is strange that I reacted so strongly!!! I still feel strangely detached, as if I were a little removed from what was happening. 06F 07:XX:XX

I don’t know whether this is from (the) proving or what, but I don’t really miss my boyfriend as it used to be. I just find excuses not to see him. 11F 01:XX:XX

Was not myself today; very distant and irritable. Just felt dissatisfied with everything. 06F 09:XX:XX

Really desired company today, felt very isolated and lonely. 06F 13:XX:XX

Anxiety and paranoia

Anxiety; palpitation; scared of going to sleep. 04F 22:XX:XX

Still a bit afraid to go to sleep. Decided to go to sleep with the lights on and slept the whole night through. 04F 23:XX:XX
At night I was lying on the bed facing the wall when I heard a man’s footsteps in the room [I do not know why I felt it was a man, I think it was the heaviness of the steps]. I was a bit surprised but not afraid at first because I thought it was my friend’s husband. But the steps seemed to stop next to my bed and then I heard heavy breathing. I was becoming more and more afraid as I realised that someone was standing behind me just breathing heavily. I turned around and there was no one there!!! I was terrified and confused because it was so real. I tried to fall asleep again, facing the other direction. Just as I was starting to relax I felt someone [a man] whisper in my ear from behind ['hello']. I was terrified, I ran to my friend’s room and she had to sit up with me for half an hour before I calmed down enough to sleep. I slept with the light on, and a picture of Gurudev next to me, but I still kept getting strange images of rippling waves making up someone’s stomach and a knife being plunged into it and bones. 06F XX:XX:XX

In the evening I felt very anxious and fearful before going to bed. I found it hard to go to sleep, slept with lights on. Kept thinking I heard or saw something out of the corner of my eye. 06F 01:XX:XX

In the evening before I had got a disturbing phone call about some money going missing from work. (It) makes me anxious because I was the last person to see the money!!! (I) have been feeling very anxious and guilty that the money from work hasn’t been found. I don’t know why it is affecting me so badly because I didn’t do anything wrong, but I just feel so stressed out by the whole thing. 06F 12:XX:XX

Feel very worried about work but annoying. Can’t stop myself gaming, cleaning or doing anything (other than) what I should be doing. 14F 12:XX:XX

Supposed to be excited about the long weekend but I’m just tense and worried because I feel I should be working. 14F 12:XX:XX
Had very bad emotional breakdown this morning: Major crying and anxiety attacks etc... I cracked: (I) felt like (I) had too many expectations on my shoulders and when I vented it out to mum, it came down to my research and feeling completely on my own and that no one can help me and no one understands!!! Nothing is working and I feel trapped. Taking so much of my energy and effort and emotions!!! I am exhausted. Tired physically and emotionally. 02F 10:XX:XX

Started over-analyzing very badly with no cause – thinking that I need to leave my boyfriend because he is not right for me and we don't have fun or enjoy ourselves when together but looking back now, is completely not true, we have lots of fun together, but we are both deep people, not superficial and life affects us very deeply! We are both sensitive!!! 02F XX:XX:XX

Was slightly paranoid about my relationship with a guy I recently met. Was feeling a bit anxious for a while. That settled once I had reasoning injected in me by a friend. 18F 04:XX:XX

Anxiety about work. Anxiety in general > being busy. Grumpy. 14F 05:XX:XX

Feel restless. Want to get out and do something. 02F 07:XX:XX

Irritability and indignation

Had stubborn argument with Gran about how it is OK for a wife to divorce her husband who refuses to be faithful, even with kids involved. That she deserves love! (I) am quite passionate when arguing such things. 02F XX:XX:XX

Feel frustrated: irritated and restless. 02F 09:XX:XX

Went for hospital rounds. (I) got so angry that my group members were so incompetent! They had no rhythm to what they were doing and they were doing everything wrong and out of order. I wanted to just cry and walk out. I was angry and got tremors on my left leg. 04F 15:XX:XX
(Had an) argument with fiancé. I know I can be oversensitive but it should not mean that he can say whatever he feels like saying to me. Spent time with my friends; I felt cheered up by their company. 06F 04:XX:XX

In a bit of an irritated mood this morning. 09F 10:XX:XX

Was very annoyed today. Not pissed off. 09F 13:XX:XX

Irritable. I just want to do my thing without people getting in my way, (in the) morning. 14F 07:XX:XX

Relaxed but tired and irritable. 01F 18:XX:XX

These entries are beginning to annoy me slightly, I feel as if I’m writing the same thing every day. 18F 06:XX:XX

Woke up fine. Feeling a bit down – not like before. Was getting irritable. 20F 04:XX:XX

Had a very short temper about small things. 25M 03:XX:XX

Was very quick to get irritated with small situations. 25M 16:XX:XX

I was very moody in the morning. 15F 13:XX:XX

**Apathy and tiredness**

I got very fastidious. Tired all day. 01F XX:XX:XX

Feels like I am in a dream/shock state. 01F 12:XX:XX

(It is) very hard to think. Absent-minded. Keep forgetting what I’m supposed to be doing! 01F XX:XX:XX

Sleepy and tired; not motivated to study. 01F 01:XX:XX

Can’t clean, tidy, organize, write lots, or get things done. 14F 09:XX:XX

Fuzzy and tired. 01F 07:XX:XX
Feeling apathetic. 01F 13:XX:XX

Miss my partner! Mind dull, thick, misty and foggy. 01F 15:XX:XX

I was so tired I could hardly focus on what I was thinking. Wanted to go home and sleep the whole day; hot, bothered, foggy, irritated, just want to be at home, alone and quiet! 01F 19:XX:XX

Can’t concentrate! 04F 07:XX:XX

Decreased concentration! Absent minded! 04F 09:XX:XX

I had a fight with my boyfriend and strangely he dumped me, but I couldn’t care less. I didn’t even understand the reason. Just thought he was being fussy for nothing. A few hours after that he phoned me asking whether I’m not sorry for what I did, and I wasn’t. He ended up being the one who’s apologising and I forgave him, but I don’t know what he did wrong. I absolutely felt nothing for his problems. I usually cry when we have a fight. This is strange. 11F 06:XX:XX

Truthfully I hate writing all this. Actually I am tired of everything and recently I have been bunking [skipping] lectures and I couldn’t care less. This is so strange for me to do. I am tired of everything. During a pharmacy practical we were doing LM potencies [I was doing Natrum mur.] I started to get all clumsy; dropping remedies, dropping everything. I couldn’t concentrate. 11F 08:XX:XX

I woke up this morning very tired. 15F 04:XX:XX

I’m out of energy; de-motivated to live. I just want to sleep and quit school. 15F 15:XX:XX

(The) day didn’t start off too well: (I) was down for most of the day. I however cheered up at a later stage. 18F 03:XX:XX

So lazy, but in general I’m feeling well. 23F 01:XX:XX
Felt lazy. Not tired but lazy. Slept during the whole day; it was great. 23F 03:XX:XX

Realized by late afternoon that I was very distracted with whatever I was doing; a lack of focus. 25M 07:XX:XX

**Hypochondriasis**

I am convinced that I have the placebo. 01F XX:XX:XX

I have the placebo. 01F 03:XX:XX

If I am on the proving substance I am the worst prover ever!!! 01F 20:XX:XX

I decided to go for check up for Swine-flu – but I didn’t. I’m scared. 15F 10:XX:XX

I am really really sick now. 15F 06:XX:XX

I was feeling sick at night. 15F 06:XX:XX

Today everything was different. I became sick and tired towards the end of the day, and now can’t study for (a) test. 15F 09:XX:XX

I have ‘flu today. 15F 10:XX:XX

I’ve never been so sick like this in my life. In fact all my senses are disturbed. 15F 12:XX:XX

If it’s not one illness, it’s another. I had a bad ‘flu during the weekend. 15F 15:XX:XX

**Crying**

Feel sick. Want to cry, but can’t. 02F 01:XX:XX

I may start screaming (or) crying at people. 14F 09:XX:XX

Was in a very irritable mood today. Increased sensitivity: wanted to just burst out in tears when I found out I failed [a subject], but didn’t. 04F 06:XX:XX
Got so irritable and angry with one of my classmates for being so inconsiderate! (I) got really angry at one of my classmates after they made a selfish comment. (I) wanted to burst out and cry. 04F 08:XX:XX

VERTIGO

Felt dizzy a bit. It felt like I was moving around quickly. (I) felt confused > for closing eyes and shaking head. 04F 07:XX:XX

Felt a bit dizzy when I got out of bed. 20F 07:XX:XX

I was in a lift and I jumped off I felt my body as if it was floating like losing balance. 11F 02:XX:XX

During the later afternoon I felt a sense of vertigo. It is a sensation as if things are tilting or I am moving, but I don’t perceive the movement visually, it is just a feeling. It is very disorientating. (I) felt this once at work and later in the afternoon as I rose from a seated position. 06F 03:XX:XX

Just after midday, I felt very dizzy again. Similar to the other instances of vertigo. I was at home standing in the lounge. 06F 04:XX:XX

(In the) evening I had a few odd episodes when I felt a little dizzy; sensation as if falling towards my right side every time. 06F XX:XX:XX

HEAD

Temporal headache

Felt an aching sensation extending from my right temple to right jaw. 01F XX:XX:XX

Dull headache with sore points around right side; spots in right eye, over right temple and right occiput. 01F 12:XX:XX
Headache in temples got worse all day < noise and straining eyes. Felt sick; eyes irritated and painful. Headache in temples and eyes [sharp] and neck pain. 02F 12:XX:XX

Headaches: Temporal (and) occipital; sharp pain and head is heavy. (02F Prover summary)

Got a headache: throbbing in nature, located behind my left eye and temporal region which radiates to my neck. 03F XX:XX:XX

I have a temporal headache, and it is throbbing!!! 03F 14:XX:XX

The headache above my eyes is dull (and) more diffuse. (It) started on both sides. Moved to left then to right eye. Minutes later (it moved) to the right temple region. Moved down to the neck. I felt pain down the right arm; tingling tiring pain. 11F XX:XX:XX

I woke up with a headache on the right temple; dull, aching pain. 11F 01:XX:XX

Woke up with a slight headache – nothing major; on the right side of my temple, just above my eyebrow. (I) massaged my forehead. Headache was gone before I reached work. 30F 10:XX:XX

**Frontal headache**

Dull frontal headache. 14F 05:XX:XX

Throbbing pain in forehead in the mid-afternoon, < walking > sitting down. 15F 02:XX:XX

Forehead feels compacted. 04F 01:XX:XX

Throbbing headache in forehead and eyes. Occipital area and neck [back] stiff and painful. (I) feel nauseous and dizzy. Headache is killing me!!! 04F 16:XX:XX
Headache is back [23h30]. It is compressing on my forehead and eyes. Trying to sleep, feels like there is light shining on me while sleeping. 04F 16:XX:XX

(I) feel a sinus headache brewing. 25M 11:XX:XX

Mild headache around 17h00, but (it) didn’t last long. (It) was in front of my head. 25M 16:XX:XX

Have a headache in the front of my head above my eyes. 25M 26:XX:XX

(I) developed a bit of a headache in the course of the day: It was actually at the front of my head just above my left eye. I am so sure it was the wind that caused it. We had gale force winds and I was out in the wind. Took two Paracetamol at work and another two when I had come home. The headache was still there. 30F 23:XX:XX

**Headache like a skullcap**

Headache dull and foggy all over my head like a cap. Made concentration difficult. 01F 18:XX:XX

Woke up with dull headache and no sore points around my head. (It) feels like I am wearing a skullcap around my brain. 01F 13:XX:XX

Headache is situated at the centre of my head and moves to my left side, ear, neck and shoulder. It starts in the centre and moves over the scalp and covers my head like a hat or sack and ends at shoulders and stops; but it starts all over again! (It is) > when I am sitting up (and) < as soon as I rise up. I feel like a zombie; so lifeless. I am scared I might die. I miss my mother! < when I close my eyes. Feels like my head does not belong to me. My body feels free, but my head feels burdened. It is like I am carrying a heavy load. Eyes worse when I move them around; > when focusing on one place; << dark. Palpitation and increased heart beat on any movement. I want to just cut my skull and open it up. I feel so lifeless; > if I look straight at the light. 04F 16:XX:XX
**Parietal and occipital headaches**

Around 10:00 I wasn’t bloated anymore just a bit tired of a headache on the right side. *11F XX:XX:XX*

Headache < pressure, especially of pillow. Boring pain experienced on the side of the head. Pain with a feeling of congestion. *23F 01:XX:XX*

I had a terrible headache for the whole day. It started gradually getting worse. It was on the left side. Supra-orbital dull aching pain, but sometimes I felt as if there’s something like an iron band from occiput to the back of my ears; mostly left ear. Resulting in pain on my left side. *11F 04:XX:XX*

As I was driving home I had a headache which felt very different to my normal headache: it was in the occipital region, < motion; happened at 15h00; and it was throbbing/pulsating!!! *06F 07:XX:XX*

**General headaches**

Headache in the morning and feeling tired. *15F 03:XX:XX*

Headache in the morning. *15F 09:XX:XX*

Woke up sick with a headache as always. *15F 12:XX:XX*

Wake up tired with headache. *15F 19:XX:XX*

On waking, with my eyes closed, I felt movement from within my head. It is like my brain and eyes are in constant motion from side to side. *04F 01:XX:XX*

I woke up with a terrible headache, dizzy, and moody. *15F 15:XX:XX*

Headache in the midday; < moving or walking; > sitting down. *15F 03:XX:XX*

Slight headache during the day. *15F 13:XX:XX*

I have a bit of a headache around 15h00. *11F 01:XX:XX*
By 19h00 head was beginning to feel heavy possibly due to congestion. By the time I went to bed around 23h00 it got worse. 20F 04:XX:XX

Headache at night. 15F 01:XX:XX

Headache started at 02h00 with a great sense of hunger. So (I) ate bread and I feel much better. 23F 01:XX:XX

My head feels heavy. 15F 10:XX:XX

My head was heavy and (I) had a terrible headache. 15F 11:XX:XX

Headache is back because I’ve been walking. 15F 06:XX:XX

I walked to university, and (the) headache is killing me. 15F 08:XX:XX

Slight headache when I’m walking. 15F 14:XX:XX

Slight headache < moving around. 15F 16:XX:XX

**Scalp and hair**

Scalp itchy; dandruff. 14F 09:XX:XX

Head was itchy [scalp]. 25M 02:XX:XX

Head was still itchy from previous night. 25M 03:XX:XX

Itching all over my scalp – first in one spot, then all over. 01F XX:XX:XX

Dry, itching all over scalp and occiput. 01F 09:XX:XX

Hair very dry at the moment (RS). Scalp very itchy especially vertex; not > scratching. 14F 12:XX:XX

Hair on head very dry. 02F 06:XX:XX
EYE

Eyes dry and tired. 01F 02:XX:XX

Earlier on I had very dry and itchy left eye. I rubbed it and (it) went very red and watery. 02F 03:XX:XX

Eyes felt dry and itchy. 09F 05:XX:XX

Eyes feel dry and itchy [21h00]. 09F 25:XX:XX

Eyes were itchy but did not persist beyond morning. 25M 02:XX:XX

Itchy eyes and dry cough. 25M 10:XX:XX

Itchy eyes now and again. 28F 01:XX:XX

Burning and itchy eyes. 28F 02:XX:XX

Itchy eyes. 28F 03:XX:XX

Eyes red and sore from being in front of the TV screen (NS); > closing and resting them; > sleep. 14F XX:XX:XX

Eyes have been red for three days; < when looking at computer and reading < night. 14F 05:XX:XX

Eyes still a bit sore and red; < watching television, computer screen or reading. 14F 07:XX:XX

Eyes red and scratching; < computer work. 14F 08:XX:XX

Left eye very sore and red. (It) burns in the outer canthus; < if I move my eye. 14F 23:XX:XX

Left upper eyelid is burning and stinging [22h40]; < opening > closed. It feels like there is salt or sand inside. Sticky discharge from eye. 04F XX:XX:XX

Eyes started burning; left eye first then right. Sticky liquid came out. 04F 19:XX:XX
Eyes are watery. (I) have a weird throbbing sensation in upper right eyelid area. At the same time (as above sensation) I sneeze a lot. (The) sensation keeps coming and going (It’s) a little painful. (I’ve) just realised the weird eyelid area pain starts (in the) extreme right hand top corner of my nose travels upwards to the eyelid. This occurs when I chew hard on my right side. When I felt the pain in the afternoon (I) was (chewing) almonds – it’s very weird! 09F 12:XX:XX

Eyes feel enlarged from within, especially upper lids. Left eye is painful, > closing. 04F 01:XX:XX

Felt like my eyes just zoomed in, or they were looking at an object that was really close. Left eye is burning > for closing eyes. 04F 07:XX:XX

Feels like sand is in my left eye. Eyes feel heavy. Can’t look up straight; > looking down. 04F 01:XX:XX

Upper eyelid feels very heavy; difficulty in opening eyelid. Light becomes unbearable; (I) can’t look up > if looking down. 04F 07:XX:XX

Eyes heavy and painful. 04F 16:XX:XX

(I have a) small bump on my left eye [lower lid, lateral side in eyelashes]; sore when I rub my eye. 01F XX:XX:XX

Bottom of right eyelid is feeling sore and tender - like I am developing a stye. 09F XX:XX:XX

Woke up with a stye on my right lower eyelid. 09F 13:XX:XX

My left eye twitches. 15F 01:XX:XX

Left eye always twitches, but not sore. 15F 03:XX:XX

My left eye (is) twitching, with tearful eyes. 15F 05:XX:XX

Eyes teary. 15F 10:XX:XX
My eyes are teary. 15F 12:XX:XX

My eyes look a bit yellow. 04F 19:XX:XX

**VISION**

Eyesight (is) a bit ‘dotty’. 02F 02:XX:XX

Vision is blurry. 15F 11:XX:XX

**EAR**

Had (a) very itchy right eardrum this afternoon. (I) needed to rub (my) ear! 02F 05:XX:XX

My ear piercings seem to be a bit itchy and *(RS)* ‘unhappy’ on right side. 14F 09:XX:XX

My left ear is sore and itchy, but it’s not too bad. 15F 05:XX:XX

At about 17h00, (I) felt my ears itching and a post nasal drip coming on. 20F 04:XX:XX

When I finally woke up at 08h00 (my) throat and ear s (were) still painful. 20F 05:XX:XX

Left ear was very itchy and painful when touched i.e. sensitive. No problem with my hearing, but ear is painful. 25M 15:XX:XX

Have an abscess in my ear. Very sensitive when touched. Noticed ear canal was swollen. It is very itchy. 25M 16:XX:XX

Ear still very sensitive and red inside; left ear canal is swollen. 25M 16:XX:XX

Ear wax yellow [not bright, close to mustard colour]. 02F 01:XX:XX
HEARING

Hearing (is) not so great. 15F 11:XX:XX

NOSE

Towards the evening (my) nose feels itchy. 09F 12:XX:XX

Nose feels acrid, burning and tingling! 04F 08:XX:XX

(I) sneeze a lot in the evening. 09F 14:XX:XX

Hayfever: just in the morning; > (when I) got up and walked around < dogs. 02F 14:XX:XX

(I had an) urge to sneeze but I couldn’t. 11F 08:XX:XX

I sneeze (NS). 15F 10:XX:XX

Still have ‘flu. I sneeze. 15F 11:XX:XX

Nose started to tickle inside nostrils, and right nostril blocked up. 02F 02:XX:XX

‘Flu! Oh, my gosh – I sneeze. My nose is blocked and I keep on blowing it. 15F 12:XX:XX

Woke up fine – just a bit of a runny nose. 20F 04:XX:XX

Had worst night ever. (I) hardly slept. At 03h00 I woke up with (a) blocked and painful left nostril. (I) finished a lot of tissues just wiping water from (my) nose! Very frustrating. Then at 04h00 (it) swapped to right nostril. (I) blew (my) nose; increased mucous which is watery. 02F 09:XX:XX

I’m always blowing my nose. 15F 09:XX:XX

I keep blowing my nose. 15F 10:XX:XX

My nose is extremely runny with thick, yellow mucus. 20F 06:XX:XX
My nose was extremely runny, with very thick mucus. (I had) difficulty in cleaning nose because mucus was too thick. Yuck! 20F 07:XX:XX

Nasal discharge (is) yellow; not bright, close to mustard colour). 02F 01:XX:XX

Still very mucous. Coughing up phlegm and (have a) runny nose. 20F 08:XX:XX

Slight mucus build up in nose, and phlegm in throat. 28F 02:XX:XX

I produce some mucus. Sometimes my nose is blocked. 15F 05:XX:XX

Nose is blocked. 15F 10:XX:XX

Nose started to get a bit congested from 21h00 till the late evening. I hope I am not falling ill because both my parents are sick. 31M XX:XX:XX

Nose has been very congested and stuffy the whole day. It was really thick jelly stuck in my nose, but when I tried to blow my nose nothing really came out. The best way to clear my nose was to do brisk walking. But the clearing is usually very temporary. 31M 01:XX:XX

I keep smelling a wet dog! 04F 02:XX:XX

**FACE**

Pain is diffuse at the right side of my jaw. About 3 weeks prior to this, I used to get mild discomfort which would resolve in a few minutes. However, this is lasting for more than two hours, with a beating sensation; > biting on something. 20F 01:XX:XX

Feel like I’m burning on my skin < face. 02F 02:XX:XX

Skin still bad, can’t stop touching my face – feels almost itchy, but not... 02F 10:XX:XX
Dry, itchy rash appearing on right side of face, on cheekbone. 01F 09:XX:XX

Rash on face / acne rosacea [unusual]. 01F 15:XX:XX

My skin broke out in acne: cyst like form of acne mostly on my forehead!!! 03F 01:XX:XX

The acne break out is getting worse. 03F 02:XX:XX

Skin on my face is very bad; pimples!!! 02F 10:XX:xx

I had cold-like symptoms, feeling pressure on my face. 11F 08:XX:XX

By midday felt a tingling sensation on my upper lip. (It) progressed to a fever sore by late afternoon. 25M 01:XX:XX

Woke up with full blown fever sore on my upper lip. 25M 02:XX:XX

**MOUTH**

Bad taste in mouth (in the) afternoon and evening. 02F 01:XX:XX

Have had (a) very bad taste in my mouth the whole day... 02F 02:XX:XX

Still have bad taste in my mouth. (I) cannot really describe it... Not pleasant, could make me nauseous. 02F 02:XX:XX

Taste is not bitter, but is maybe bile! Bad bile!!! < when I breathe out through (my) nose. 02F 02:XX:XX

Still have very bad taste in mouth! < when I breathe out. I can't explain (the) taste; maybe like after taste from off milk or cheese... 02F 03:XX:XX

Bad taste has got worse and stronger now! 02F 02:XX:XX

Unpleasant taste in the mornings until I brush my teeth or wash my mouth. 15F 05:XX:XX

Mouth feels very dry in the night [23h00]. 09F 26:XX:XX
I noticed that I have mouth sores. It feels like small cuts on my lower lip. 11F 01:XX:XX

At around 21h00 developed a dull gnawing gum pain. 20F 01:XX:XX

**TEETH**

Mouth [jaws and teeth] is very sore, as if someone is pushing my teeth outwards. 09F 15:XX:XX

**THROAT**

Have a scratchy throat in the morning. (It’s) not sore. 09F 11:XX:XX

Still have an itchy throat. 09F 11:XX:XX

(My) throat feels dry and itchy – especially in the morning. 09F 20:XX:XX

Felt a slight bit of discomfort i.e. itchy throat, but was not lasting. 25M XX:XX:XX

Because my throat was itchy, I had the urge to cough. After taking a shower, the sensation in my throat subsided, but I still continued coughing. My throat felt like it was bruised. 20F 07:XX:XX

(My) throat is sore when I try to swallow. 09F 17:XX:XX

My throat is sore at night or in the mornings - as if there is a lump or something. 15F 06:XX:XX

My throat is very sore at night, as if there is a lump blocking it (OS) – happened when I took tablets after going to the doctor. Now it’s coming back. 15F 07:XX:XX

By 19h00 swallowing was painful. (I) had a sore throat. It was red and felt raw. By the time I went to bed around 23h00 it got worse. 20F 04:XX:XX
Woke up at 03h30am (with) throat very rough like sand or grainy. I couldn’t swallow. (It was) very painful. When I finally woke up at 08h00, (my) throat and ears (were) still painful. It felt a bit better during the day but got worse again at 17h00. 20F 05:XX:XX

Sore throat was very painful and red. 25M 23:XX:XX

(I) still have a sore throat and feel weak. 25M 25:XX:XX

Phlegm feels terrible. 09F 21:XX:XX

Still have a lot of phlegm and mucus in my throat. 09F 23:XX:XX

STOMACH

Have been getting hiccoughs which is unusual for me, when I think of [a subject I study]!!! 01F 01:XX:XX

Got hiccoughs earlier in the shower; not normal for me. 02F XX:XX:XX

Eructations increased and smelly. 01F 04:XX:XX

Feels like a hamster has crawled into my throat and died in my tummy and now I am burping dead hamster!!! [unusual]. 01F 12:XX:XX

Now I have over eaten and feel so full. (I) feel like the food is sitting just beneath my throat. (The) bad taste in (my) mouth (is) gone now. (I) really enjoyed dessert. 02F 03:XX:XX

Still have the bad taste in (my) mouth. I think my liver is affected (because of) nausea, and taste, and waking between 01h00 and 02h00. (I am) also bloated and passing gas often... 02F 05:XX:XX

(I am) feeling a bit more thirsty today! 03F 20:XX:XX

Increased feeling of nausea. 04F XX:XX:XX

Felt nauseous after eating KFC. 04F 04:XX:XX
This afternoon I ate one segment of a naartjie (tangerine) and within 10 minutes, my stomach was in knots and cramping. (It was) very painful! (I) then got nauseous! (I) felt pale. The pains subsided within 20 minutes but (the) nausea got worse; I was gagging over (the) toilet bowl, thinking I was going to bring up. (It) was very severe. (I) forced down some water, and within 1 hour or so, (I) felt better. But after the nausea the bad taste has come back into mouth; very strong!! (I also) got very bloated, like I needed to pass gas but couldn’t! 02F 04:XX:XX

I feel very nauseous [10h30] and threw up. 09F XX:XX:XX

I start feeling nauseous around 16h00. Nausea disappears at 23h30. 09F 01:XX:XX

Feel nauseous. The feeling persists throughout the day. 09F 15:XX:XX

Have a lot of bile. 09F 21:XX:XX

(I am) very nauseous [03h00]. I feel as if am going to throw up any minute. (I) also feel very weak and shaky- as if I have low blood pressure. It is how I imagine people to have low blood pressure. 09F 23:XX:XX

Perhaps I’ve eaten too many unusual foods today and that’s messing with my system. 18F XX:XX:XX

Threw up around 06h30. 09F 23:XX:XX

(I have) decreased appetite! 04F 05:XX:XX

(I have a) better appetite in the evening!!! 06F 13:XX:XX

(I have a) craving for something (RS). 14F 05:XX:XX

Was very hungry today, and thirsty despite having a lot of water. 25M 03:XX:XX

Had a good appetite. 25M 05:XX:XX
Woke up early feeling very hungry, but didn’t feel like eating. 25M 06:XX:XX

(I am) still thirsty although drinking more than 2 litres of water yesterday. 25M 05:XX:XX

Drank lots of water, but didn’t have a good appetite. 25M 07:XX:XX

(I have) increased thirst for water with ice. 04F 16:XX:XX

Felt very thirsty and hungry. 25M 12:XX:XX

Today I really enjoyed my juice. I could drink so much of it and I’d still want more. But it is not the first time I’ve had a craving for juice like this. 31M 04:XX:XX

**ABDOMEN**

Flatulence has increased a lot. It’s very smelly!!! 01F 01:XX:XX

Still a lot of flatulence which is smelly, and a little constipated. 01F 02:XX:XX

I have got bad gas! Passing wind often, even had loose stool this morning... (It’s) been the last couple of days where (I) can’t hold in the gas, unusual for me. 02F 08:XX:XX

Have had a huge amount of bloating and gas! Not normal at all. I need to pass wind very often. (It) is embarrassing. I don’t know how to stop it!! Usually I can control it, and (it) is never this much!!! 02F 09:XX:XX

After dinner I am bloated and there is increased gas. (I am) getting very annoying now. 02F 10:XX:XX

I had (an) enormous amount of gas after dinner. (It) seems like my IBS has got worse with (the) proving. Increased flatulence < onions. 02F 16:XX:XX

Feel bloated and passing gas. 04F 01:XX:XX
(I’m) feeling a bit bloated but can’t pass out gas. My abdomen is only windy
in the lower quadrants, especially on the left side. 11F 02:XX:XX

I was bloated for the whole day, mostly on the left side. 11F 03:XX:XX

When I woke up I was bloated until 12h00. 11F 05:XX:XX

I’m feeling a bit bloated. 20F 06:XX:XX

I have an increase in flatulence; < night. 30F XX:XX:XX

I have a heavy sensation on my abdomen below my umbilicus. 11F
07:XX:XX

I have been having abdominal cramps for a while now; it feels like needles in
my belly button and feels like something is pulling my belly button! 04F
12:XX:XX

(I have) pain in (a) left inguinal node. The pain is a bit dull like something
heavy sitting there or perhaps a cramping pain. 11F XX:XX:XX

My stomach is still sore when I eat sweet things (RS). 14F 07:XX:XX

Tummy (was) sore this morning around 09h00; > stool. 14F 08:XX:XX

Tummy was sore this morning after I ate yoghurt and seeds and apple for
breakfast. The pain is crampy. (It) was also sore after last night’s rich curry.
14F 09:XX:XX

My tummy (is) still sore from sweet food (with) very low level nausea; > if I go
to the loo; > eating a proper meal. 14F 23:XX:XX

Stomach ache. Oh, my gosh! I always go to the loo, especially after eating
something. It makes me lose energy. 15F 15:XX:XX
RECTUM

Intense pain before and on defecation. (It) felt like a plug; scraped on the way out. 01F 09:XX:XX

I tried to pass stool; (it) felt like it was coming out easily, then got ‘stuck’, and wouldn’t come out! I had (an) awful ‘incomplete’ feeling. Not normal for me... I usually pass stool easily. 02F 01:XX:XX

Feel constipated. Hate it!! 09F 20:XX:XX

Tummy problems: I feel constipated. 09F 26:XX:XX

With regards to bowel habits, (I’m) very constipated – I didn’t go over the weekend – though not feeling bloated. 20F 05:XX:XX

Stools (are) more frequent than normal i.e. from once daily to three times daily, but no pain and properly formed. 14F 07:XX:XX

My stomach is upset after having breakfast in the morning. I was rushing to the toilet. 15F 15:XX:XX

STOOL

My stool is darker, almost black. 04F 04:XX:XX

(My) stool colour is black. 04F 06:XX:XX

BLADDER

I have fullness of bladder although no or little passing of urine. I drank a lot of water and symptoms subsided. 01F 10:XX:XX

(I am) very incontinent. I have increased frequency and urgency. (There is) slight pain after urination and after emptying in groin – dull pain. 01F 16:XX:XX
(I have) a slightly increased frequency of urination!!! 03F XX:XX:XX

URETHRA

(There is a) warm, pressing, burning sensation in my urethra. 01F 10:XX:XX

Burning (during) urine; just during (urination), not before or after. 14F 23:XX:XX

FEMALE

(I have) increased sex drive. 01F 09:XX:XX

Sexual desire (is) increased. 15F 11:XX:XX

Libido (is) increased (NS). 14F 12:XX:XX

Sexual desire at night and midday (OS): just a good feeling < for cold weather; at midday and < night. This is quite embarrassing. 15F XX:XX:XX

This is weird: sexual desire every midday. It is < cold. I just feel cold after this feeling. 15F 01:XX:XX

(I have an) awareness of my uterus. 11F XX:XX:XX

Started period: very heavy flow; had to change quite often!!! Slight cramping in lower abdomen and back. 02F 12:XX:XX

I started to have period pains; like something was pulling and twisting my uterus. 11F 05:XX:XX

My period started but was late by two days. 11F 05:XX:XX

Around 14h00 my flow started to get worse, which is very unusual for me. 11F 05:XX:XX
Around 17h00 my periods were heavy and the pain very violent; pulling down (and) twisting. I started to lose my temper, shouting at my siblings. I felt like my whole uterus was going to come out, but the strange thing is that the pain is the same as the pain I had when I had my first period nine years ago; with spasms in upper extremities. 11F 05:XX:XX

At 20h00 I was flat, and around 21h00 I felt the pulling, twisting pain on my uterus as if it wanted to come out. It lasted until I fell asleep. 11F 07:XX:XX

Period pains around 19h00 (OS); > pressure; accompanied by hunger (NS). 14F XX:XX:XX

I still have my period!!! (The) period smells really bad and contains clots. 04F 06:XX:XX

Still having period pains. 11F 07:XX:XX

My discharge has a weird colour. 15F 02:XX:XX

**RESPIRATION**

(My) chest is heavy and tight. (The) respiratory area feels as if it is restricting when I laugh or take a deep breath. 09F 02:XX:XX

Had a tight chest in the morning. 09F 05:XX:XX

(My) breathing is a bit heavy in the evening. 09F 25:XX:XX

(I have) difficulty breathing. 15F 12:XX:XX

On waking (I) was short of breath. (My) chest felt heavier with more mucus secretion than what I previously woke up with. 20F 02:XX:XX

Woke up with a very tight chest. 20F 07:XX:XX

I hear the wheezing sound and have to take deeper breaths. 20F 07:XX:XX

Feel asthmatic especially in the morning. 20F 08:XX:XX
(I am) only asthmatic when I wake up. 20F 09:XX:XX

 Noticed being out of breath after a short burst of exercise initially. 25M 19:XX:XX

**COUGH**

Dry cough. Very irritating. 09F 25:XX:XX

Chest feels tighter with a dry cough. 20F 06:XX:XX

(I have) difficulty in coughing, but because my throat was itchy, (I) had the urge to cough. After taking a shower, the sensation in my throat subsided, but I still continued coughing. The cough continued throughout the day – a dry cough – but I feel it (as) heavy. Cough got worse at bedtime. 20F 07:XX:XX

Dry cough. 25M 10:XX:XX

**EXPECTORATION**

Lots of mucus is being produced. 15F 08:XX:XX

Coughing up phlegm. 20F 08:XX:XX

Coughed up thick white phlegm when brushing my teeth this morning. 25M 24:XX:XX

**CHEST**

(Skin is) itchy over chest too. 02F 02:XX:XX

Chest is itchy along sternum. 04F 02:XX:XX

I noticed my breasts have remained big (during menses). They usually go small during my period. 04F 06:XX:XX
My breasts are sore. 11F 01:XX:XX

I had a sharp poking pain on my right nipple. 11F 07:XX:XX

Ribs feel like they are overlapping. 09F 04:XX:XX

I feel great though have a slight pain in my ribs on the right side - weird!! 09F 23:XX:XX

Around 07h00 I had (a) stabbing pain on right anterior axillary line around 5th rib. (It) lasted for about 10 minutes. 11F 09:XX:XX

Minor skin irritation over my ribs on the right side. A little red and itchy, but was not bad. 25M 09:XX:XX

Anxiety felt like weight on chest. 14F 05:XX:XX

Chest very painful. 15F 11:XX:XX

Chest pain when I sneeze. 15F 12:XX:XX

BACK

Back (is) itchy and dry; > scratching. 01F 04:XX:XX

Huge pimple on back. 01F 10:XX:XX

Neck (is a) bit sore whilst walking; < right side. Back pain; > pressure. 02F XX:XX:XX

Neck (is) very sore. 02F 14:XX:XX

Lumbar area (is) a bit sore and neck stiff. 01F 17:XX:XX

Stiff lower back, shoulders and neck. 02F 03:XX:XX

I am just a little tired and my lower back is very sore! 03F 13:XX:XX

Back is stinging and burning along spinal cord. 04F 02:XX:XX
Had a terrible back ache (on) lower left side. 09F 13:XX:XX

Have a sharp pain in my lower left side of back but (it) goes away after (a) short while. 09F 26:XX:XX

Back (is) aching. 15F 05:XX:XX

Slight pain in lower back. 25M 06:XX:XX

Slight pain in lower back; a pinching sensation. 25M 18:XX:XX

### EXTREMITIES

Neck and shoulders (are) very tense! 02F 10:XX:XX

Right shoulder (is) cramping badly. (It’s) very painful, shooting down (my) right arm and up (the) right side of (my) neck. Arm muscles (are) sore and stiff from playing squash. 02F 05:XX:XX

My upper extremity muscles are painful. I can’t even make a tight fist especially on my left hand. Also the trapezius and deltoid muscles sometimes go into spasm. These muscles are only painful when I’m trying to move. The spasm also occurs when I’m resting. 11F 05:XX:XX

My muscles are painful especially the hamstring muscles and my left arm. 11F 07:XX:XX

(The) brachioradialis insertion on (my) lateral epicondyle is sore (RS before proving); < touch and movement, > warm bath. 14F 01:XX:XX

Very stiff. It may be due to kung fu training getting harder, but I feel worse than usual; > stretching and activity, < beginning motion. 14F 05:XX:XX

My right trapezius muscle is very very sore; < touch, > warm bath. Not affected by movement. Right and left wrists (are) very sore. 14F 06:XX:XX
Right shoulder [trapezius muscle] still hurts a lot; < touch. Not affected by movement once moving (RS). 14F 07:XX:XX

Right wrist (is) very sore – may have hurt it in kung fu; < movement (OS). Left wrist is better. 14F 07:XX:XX

Right shoulder muscles still bloody sore. Right wrist (is sore) too. Right gracillius muscle insertion (is) sore; < touch and movement, > warm bath. 14F 08:XX:XX

My upper extremities are sore when I wake up. 15F 19:XX:XX

My back and upper limbs, and joints are sore. 15F 05:XX:XX

Joints of my upper extremities are sore. 15F 20:XX:XX

Right shoulder joint sore from sleeping on it! 01F 08:XX:XX

Slight pain in left shoulder. 25M 06:XX:XX

Pain in left shoulder more pronounced. Piercing pain when moving my arm in certain directions. 25M 07:XX:XX

Had a muscle cramp in my forearm but (it) wasn’t severe. (It) lasted less than a minute. 25M 08:XX:XX

Had a muscle cramp in my forearm after lunch. (I) massaged it out. 25M 17:XX:XX

Right wrist feels a little stiff. 25M 19:XX:XX

Drove home and felt a weird throbbing feeling in my hand between my forefinger and thumb, similar to throbbing of the headache I had the other day. 06F 09:XX:XX

Wake up with (my) right hand feeling numb. 09F 11:XX:XX

Hands have tremors, and (I have) weakness in (my) knees. 04F XX:XX:XX
Muscles are very stiff again even though there was not much exercise to warrant it; especially the right butt muscles, and calves on both sides; < sitting still for long. 14F 12:XX:XX

Muscle stiffness; < when starting to move. 14F 12:XX:XX

Every muscle feels heavy (RS). 14F 13:XX:XX

Muscles (are) still sore and stiff from squash game; < right arm. 02F 06:XX:XX

My body was very achy at night. 15F 05:XX:XX

Left knee unable to flex. (I am) unable to walk down stairs. No pain. Sharp pain when flexing (my) right arm. 04F 01:XX:XX

Pain while sitting with right knee in flexion. (The) pain is severe; > extending knee. (There is) pain above (the) left knee. 04F 01:XX:XX

Thighs ached by (the) end of a walk; < left , < inguinal area. Physically tired. Legs are very sore; < thighs. Sharp pains; < pressure. 02F XX:XX:XX

Legs are a bit stiff (OS return). Knees and thighs ache like from lactic acid build up. It feels better if I massage them. 14F 23:XX:XX

Arms (are) itchy; < above elbow medially, < left! Very itchy! (I) want to scratch; only > for short time. 02F 02:XX:XX

Itchy along left shin. (There is a) rash [red small bumps and itchy] inferior and medial to right knee. 02F 02:XX:XX

Legs itching very badly, started with red raised lumps. Got welts that look like (mosquito) bites on thigh and underarm. 02F XX:XX:XX

(Skin is) dry, especially elbows. Itching all over. 01F 10:XX:XX

Hands (are) very very dry; more than usual. I never use cream. 14F 05:XX:XX
Hands (are) red and sore; < touch, < water. 14F 09:XX:XX

Feet are red. 02F 02:XX:XX

When I finally woke up at 08h00 (my) feet were incredibly tired. 20F 05:XX:XX

Extremities (are) cold. 01F 07:XX:XX

Hands and feet (are) cold. 01F 10:XX:XX

Very cold hands and feet. 02F 02:XX:XX

Palms (are) sweating a lot. 02F 02:XX:XX

Nails are breaking (which is) unusual. (l) usually have very hard, strong, healthy nails. 02F 06:XX:XX

**SLEEP**

Was uncomfortable during the night; my muscles ached. 02F 01:XX:XX

No matter how I want to sleep, (l) will always find things to do instead of sleeping. Can’t go to bed early. 02F 12:XX:XX

Increased yawning!!! 04F 06:XX:XX

Had the worst sleep ever. I woke up at 04h30 and only went back to sleep after 08h00. 09F XX:XX:XX

I always wake up feeling very tired. 15F 05:XX:XX

Couldn’t sleep till (the) early hours of the morning. Tired as I hadn’t had much sleep last night. 18F XX:XX:XX

Lack of sleep!!! 01F 24:XX:XX

Disturbed sleep. *(02F Prover summary)*
Had a disturbed sleep. Kept waking in the middle of the night. 09F 05:XX:XX

Have had a restless sleep. 09F 16:XX:XX

Had a bit of an uneasy restless night; woke up easily. 20F 02:XX:XX

Had a restless night; (my) mind was busy with too many things. 25M 03:XX:XX

What is wrong with me? (It) takes me an hour to fall asleep. 09F 18:XX:XX

Still sleep problems. Woke up very early - slept very late. 09F 20:XX:XX

Had an extremely uneasy night. Woke up at 03h30. 20F 05:XX:XX

Had an awesome night. (I) slept late, but (woke) up early and (am) not feeling tired. 25M 20:XX:XX

Sleep pattern changing: Sleep broke at 01h30 and then again at 02h33. Second time around I battled to go back to sleep. It makes you feel restless and just when you fall off to sleep, you must wake up. 30F 01:XX:XX

Between 01h30 to 02h30am I was incredibly hot and restless, especially in (my) legs. (It) felt like (the) muscles needed to be used. I could have even (have) gone for a run!! Was almost painful! Whole body was tense and restless. (I) couldn’t stop moving; turning over and over. Wide awake. Too hot, even though (a) very cold night. 02F 04:XX:XX

Woke up at about 03h00 feeling extremely hot. 09F 26:XX:XX

Woke at 03h00, anxious and fearful. 06F 01:XX:XX

Couldn’t sleep; I felt anxious. Had to get up and game. 14F 02:XX:XX

Had a bit of an uneasy restless night; woke up easily. On waking (I) was short of breath. 20F 02:XX:XX

Felt a bit drained at 18h00 so I took a small nap. 31M XX:XX:XX
Woke up at around 04h50 from a strange dream. 31M 02:XX:XX

DREAMS

Spirituality and praying

Had active dreams last night!!! Adventure dreams (of) escaping from people trying to catch us, breaking through the burglar guards to climb through the windows. Finding underground tunnels, running. Groups of religious people. One bad man under false pretences, posing to be good and religious, but he actually tortures and kills people. “Try to save the baby” – kept coming up over and over. Dreamt that I was writing in this diary. 02F XX:XX:XX

I dreamt that my fiancé was not over his ex, so I gave him an ultimatum that it was either me or her, but he could not make up his mind, so I left him! Felt very sad and disappointed. I woke up and prayed about it. 04F 06:XX:XX

Woke up in such fear, had a terrible nightmare! Dreamt that I was dreaming that my fiancé tried to kill me [choked me]. Woke up and prayed [but was still in dream]. Then went back to sleep [in my dream]. Dreamt that I was dreaming that I was lying down and was hearing two people discussing someone’s engagement. One of the voices sounded like my dead sister and couldn’t recognise the other one. They sounded like they were outside, but I heard the voices and footsteps coming closer to me and I heard them in my room, but then they got closer to my bed and was jumping into bed with me. I got scared, prayed and woke up in first dream, but remained in the other! Then felt like my blanket was suffocating me. It was as if someone was deliberately holding the blanket tight on my head. I finally woke up and ran to my housemate’s room. Slept there, but soon was back in the nightmare. Continuously dreamt that someone was suffocating me. Kept waking up to realise that I was still sleeping. Continued to dream that I was dreaming that someone [couldn’t see anyone, just a voice] was there. I forgot what they kept saying to me, but I remember them saying that people who suck their
thumb are not yet matured. He kept forcing me to speak, he kept grabbing me by my left lower ribs, tried to fight him, but he was too strong. Finally woke up completely, and fought to stay awake. Afraid that if I sleep again, I won’t wake up!!! I feel like God has forsaken me, I feel like I am in total darkness and evil is overshadowing me! Started reading the Bible. 04F 21:XX:XX

I was dreaming that I was attacked by demons. I woke up with short breath. My heart was pounding. I felt like the demon in my dreams was holding on to me and not allowing me to wake up. 31M 02:XX:XX

I dream of myself as a nun. 11F 01:XX:XX

**Sympathy and connection**

Dreamt of a young child, punished by being locked for one week in a purple room, so that he never does it again. Dreamt of massive fish jumping out of the pond, and I was calling for someone to help me put it back in, then I looked and it was gone, I was crying because I thought it had died!!! The fish had huge eyes that stared at me! Also dreamt that I was walking through my garden and a huge bird landed on my head. I screamed and a girl helped get it off my head. She had been showing me a ‘tiny’ costume that she had to wear and was upset... 02F 01:XX:XX

Had a good sleep. Dreamt that my sister had a baby boy and when I tried to carry the baby the head was too loose – so it was like it was almost detached from the neck. 09F 03:XX:XX

Think I slept well. Dreamt fun, happy dreams for a change. Was at a party, dancing with boyfriend. Then he whirled me up and spun me round etc. I was laughing so much and felt really happy!!! 02F 02:XX:XX

Dreamt I was in a war, but not part of it. The soldier was hiding in muddy water shooting at aeroplane. I saw an aeroplane crash on electricity wires on the street and flatten a young boy, but I felt nothing, no sympathy, no
sadness, nothing. I just walked away. The war didn’t affect me. I walked with my dead great-grandmother. 04F 01:XX:XX

**Nostalgia and family**

Dreamt I was helping a friend’s mum whom I haven’t seen in years put up curtains! Not sure what to make of that. 18F 02:XX:XX

Dreamt I was having a cup of tea at my granny’s and listening to her tales about my late grandfather. 18F 05:XX:XX

Dreamt I was vacationing with my ex-boyfriend down the South Coast at a place we used to visit. We argued a lot in my dream. I woke up upset thinking about that era of my life. 18F 03:XX:XX

Last night I dreamt of my matric [high school] reunion that never happened. I recognised many people I had not seen or thought of in years in my dream. 18F 06:XX:XX

Diwali celebration with the family and friends. Muslim family with children. Jumped from a high Pillar [wall]. Was scared, but didn’t fall to the ground. 28F XX:XX:XX

**Water**

Had a dream around 02h00 about two of my aunts in the water – could have been a pool or dam. I think my one aunt has been sick and the doctor is asking questions. The other aunt is answering for her. The only thing I heard was my aunt that is sick said that ‘when she drinks’ this is how she feels. My other aunt laughed and said, ‘But you do not drink’. All about her symptoms – her feelings etc. and all of a sudden the aunt that is answering falls asleep in the water and is actually snoring; then she glides through the water and I wake up. 30F XX:XX:XX
Secrets

A lady I know, with a secret of mine arrived and opened up a clinic next door. Was hoping that she wouldn’t tell my secret! 02F 02:XX:XX

Dreamt that someone told me the name of the proving remedy!!! 02F 08:XX:XX

Dreamt that my father found out a secret about me but he took it alright. He wasn’t angry. I was very scared though. 14F 07:XX:XX

I dreamt I had tattoos all down my arms and they didn’t feel right. My mom was very angry and we fought. I felt like I had made a big mistake and would have to live with it for the rest of my life. 14F 21:XX:XX

Criticism

Had a dream that I was trying to teach the cast of “My name is Earl”. We were fighting a lot and I really wasn’t happy. 14F 23:XX:XX

I always dream very irritating dreams, but I forget all my dreams when I wake up: I was walking, then came between two Indian girls and they said I have Autism – that’s a psychological disorder and I was so mad, very angry. I kept telling them I am a doctor. They can’t tell me that. They know nothing. I woke up very mad, only to find out I was dreaming. 15F 12:XX:XX

Dreamt I was having dinner on business class on the plane. The air hostess was manly-looking and I remember thinking bad things about her, such as (that) she has a funny voice and big feet! Don’t ask! 18F 01:XX:XX

Anxiety and panic

Dreamt last night of things from the day; throwing ball to my dog, except in my dream I threw it and it went in the road and got huge fright that he went onto the road with cars. Also dreamt of buying boats but were synthetic... 02F 07:XX:XX
Dreamt was in a tent with friend and a bear attacked us, but it turned into a man and I hit him. Was scary. 02F 09:XX:XX

Nightmares: Hijacked by two black men, defended herself with a knobkerrie; In a dessert with friends watching animals, (I) saw an Arab woman giving birth and then a man snatches the baby from her and gives it to a beast who eats the child; Leaving home, black man outside, when outside he starts coming after her; she starts praying; he has a pang a and wants to rape her (02F Prover summary)

Dreamt of a new house with steep stairs. Was afraid to walk down the stairs. Did not walk. 28F XX:XX:XX

Dreams about kung fu: very scary and exciting. [I normally have such boring dreams. NS]. 14F 02:XX:XX

Dreams anxious – can’t remember specifics. 14F 05:XX:XX

**Teeth**

Had a dream that my upper teeth all fell out. Felt very worried and incomplete. There was something missing in me. I felt strange and out of control. How can my teeth just fall out!!! I was scared, but I was on my way to confront the doctor/dentist about it, but woke up before. On waking I checked if my teeth were still there and was so relieved to find them intact. 04F 04:XX:XX

Dreamt last night a weird dream about teeth and jaw bones. It was so strange. 06F 06:XX:XX

**Forsaken**

Dreamt of being in Saudi Arabia – lots of children – more like a refugee camp. 28F 03:XX:XX

Straight after that, another dream: This is also about water. I am alone near this dam and I could hear my nephew talking to somebody about a friend of
his that lives somewhere else who has a garlic and ginger factory or shop. How robbers had gone in and attacked them. Where I was, there is a line across the water with lime, I think. All of a sudden, when I looked on the other sides, there is a white male in his thirties pointing a gun at me. I got such a fright; I am now trying to move away from him. There is grass and I am wheeling myself in a chair, moving towards my nephew’s voice of whom I still cannot see. This man is still aiming at me but has not fired as yet. When I reach the other side, where I think I heard my nephew’s voice, there is no one there and I am all alone. Sleep broke – feel a bit scared. (I) went back to sleep at 02h36. 30F XX:XX:XX

Dreamt I was trying on a pair of shoes in my favourite store in London. Fell completely in love with a shoe that they didn’t have my size for. I remember leaving my details at the store in order for them to order one and contact me. I’d left my South African address instead of my London address by mistake and we all started to laugh about it! 18F 04:XX:XX

Mundane dreams

Dreaming about mundane stuff, about painting my nails of all things. 14F 12:XX:XX

Dreamt about trying to drive a manual car but not being able to go above 40km/h. That’s all I remember anyway. 09F 16:XX:XX

Had a weird dream: serving soapy soup to visitors. 09F 25:XX:XX

I do not like my dreams at all; it’s like I’m really seeing people doing things. They are just weird. 15F 15:XX:XX

My dreams are weird. I dream about things I talk about; I saw; I think about; I want to achieve; people I know, but I am not liking them at all. 15F 16:XX:XX

Whatever happens or is about to happen in my life, I dream about it. 15F 19:XX:XX
My dreams seem real. It’s either that (that) thing has happened before, or it’s still going to happen, or I’ve seen it somewhere, or I’ve been thinking about it. 15F 20:XX:XX

Weird dreams. 15F 21:XX:XX

At night, I dreamt of achieving all my dreams and goals (very positive dreams). 15F 05:XX:XX

Dreamt about ‘Star Wars’. Seems to be very memorabale, but details missing. Left me in a good mood. 25M 05:XX:XX

**CHILL**

Feeling extremely cold but my house is a freezer. 09F XX:XX:XX

I’m always feeling cold. 15F 16:XX:XX

**PERSPIRATION**

Noticed I didn’t perspire as much as usual. 25M 16:XX:XX

**SKIN**

Skin is very sensitive. 03F 02:XX:XX

My skin felt tingly as if something was crawling underneath. 18F XX:XX:XX

Dry, itching all over. 01F 09:XX:XX

Had a rash on my body. It stung and was itchy. It looked like little red raised lesions, and it disappeared after a few minutes. 04F 05:XX:XX

Rash is back, just below my breast and chest, at the back and on my arm. Looks like swelling; pale on the inside, but with a red border. 04F 06:XX:XX

Skin cold and dry. 01F 04:XX:XX
Skin has been very oily today on T-zone of face. Very annoying. Hair (very oily) too. 14F 23:XX:XX

Got pimples on inner thigh [unusual]; < right thigh with white heads. (It) came up yesterday (as a) red area. Numerous on right thigh. Skin on my face is very bad: pimples!!! 02F 10:XX:XX

**GENERALS**

**Cravings**

Craving for curry. 01F 10:XX:XX

Eating fish more often, which is unusual. Craving for meat, which is also unusual (since I'm) vegetarian. 01F 26:XX:XX

Craved sugar, especially jam doughnuts!!! Had chocolate croissant (and) loved it. 02F XX:XX:XX

Really enjoyed chocolate tonight. I'm not usually bothered too much by chocolate. 02F XX:XX:XX

Feel like sweets and fast food at any time. I'm having chocolate, cake, KFC, McDonald's etc. 02F 01:XX:XX

Have a desire for food; mostly sugary foods, chocolate etc. Want to bake pastries... 02F 02:XX:XX

Craving chocolate cake. 09F 10:XX:XX

Craving cake. 02F 04:XX:XX

Have a real sweet tooth since the proving!!! 02F 05:XX:XX

Have had a definite sweet tooth lately, and loving it! 02F 06:XX:XX

Went shopping for candy. Had a lot of chips. 04F 04:XX:XX
(I have) thirst for juice. *31M 03:XX:XX*

Starting to have a thirst for juice. *31M 03:XX:XX*

**Sensation of heat**

Felt hot and faint in [a large shopping mall] today. Like no air and overheated. When so cold outside, feeling hot inside. *02F 06:XX:XX*

Feeling hot inside. *02F 02:XX:XX*

During the night I took off my socks and pants. (It’s) crazy because it was a freezing night. (I) probably felt hot. *02F 08:XX:XX*

Feel a bit hot!!! *04F 16:XX:XX*

Feeling extremely hot around 05h30. *09F 01:XX:XX*

Very hot. (I) don’t know why. *09F 21:XX:XX*

> Warm; very tired. *02F 06:XX:XX*

**Increased energy**

Bouncy, happy, full of energy!!! *01F 09:XX:XX*

Feeling much better. I have more energy! *03F 17:XX:XX*

Feeling extremely energetic. *09F 20:XX:XX*

Still feel energetic. *09F 21:XX:XX*

Energy levels are high. *30F 03:XX:XX*

My energy is regained during the day. *15F 08:XX:XX*

(I have) more energy. (I am) less tired by the end of the day than I usually am. *20F 02:XX:XX*

Felt very energized today. *25M 05:XX:XX*
Was very active today, climbing mountains and swimming. 25M 19:XX:XX

Hyper(active) during the day. 15F 06:XX:XX

Restlessness in body; like aching muscles full of energy, but (I) am tired! Feels like (I) need to move. 02F 10:XX:XX

Internal restlessness; Energy inside body that needs to be released (02F Prover summary)

I’m restless and I eat a lot. 15F 06:XX:XX

**Prostration**

No energy!!! Exhausted and cannot move. 01F 08:XX:XX

Decreased energy! Was tired the whole day. Increased energy at night! 04F 05:XX:XX

I am very tired today. I am yawning a lot and I am very sleepy. Very tired, constantly yawning. 04F 09:XX:XX

So tired! Constantly yawning! Very tired!!!! 04F 14:XX:XX

Increased tiredness! 04F 03:XX:XX

Very tired! 04F 04:XX:XX

Feel tired and weak in the morning, like some sort of sick person. 09F 24:XX:XX

Feel extremely drained and exhausted in the early afternoon. 09F 08:XX:XX

Still feel very tired by mid-afternoon because am not sleeping well at night. 09F 17:XX:XX

(The) energy has officially drained from me. (I) feel extremely exhausted – throughout the day and slightly fluey. 09F 22:XX:XX
Energy levels very very down (NS), but I have had a few late nights; << morning (OS). 14F 01:XX:XX

Woke up tired. (I) battle to get up in the morning (OS). 14F 05:XX:XX

Woke up very tired. Energy levels (are) very low. 14F 09:XX:XX

Energy levels at an all time low. I really don’t remember when last I was so tired. 14F 13:XX:XX

No energy whatsoever. (I) went to a friend’s place for a party, but had to leave early because I was so tired. 14F 20:XX:XX

I woke up very tired and not well in the morning. (I was) very moody. 15F 07:XX:XX

Felt drained/tired and fatigued throughout day. 20F 07:XX:XX

Felt lethargic in the late afternoon and drained. 25M 15:XX:XX

Feel as if a truck ran over me. (I am) feeling weak and tired. (I) feel very sick. 25M 22:XX:XX

Wake up feeling very horrible. 09F 23:XX:XX

**Influenza**

Developing flu-like systems again. 09F 06:XX:XX

Had flu-like symptoms. 11F 01:XX:XX

Flu-like symptoms: runny nose, itchy eyes, dry cough. 25M 10:XX:XX

Painful muscles; tired. 11F 07:XX:XX

Body feels stiff. 25M 11:XX:XX

**Miscellaneous**

All my senses have changed. 15F 05:XX:XX
Right-sided symptoms. *(02F Prover summary)*

Intercourse makes me feel numb!!! *04F 17:XX:XX*

Cold feet, hands and skin. *01F 05:XX:XX*

I prefer cold weather. *15F 05:XX:XX*
MIND

MIND: Absentminded
MIND: Abstraction of mind
MIND: Activity; desires activity
MIND: Ailments from; anger
MIND: Ailments from; anger, suppressed
MIND: Ailments from; anger, indignation; with
MIND: Ailments from; bad news
MIND: Ailments from; cares, worries
MIND: Ailments from; disappointment
MIND: Ailments from; failure: literary, scientific failure
MIND: Ailments from; fright
MIND: Ailments from; mental shock, from
MIND: Ailments from; money; from losing
MIND: Alert
MIND: Anger; trifles, at
MIND: Anxiety
MIND: Anxiety; night
MIND: Anxiety; business; about
MIND: Anxiety; conscience; anxiety of
MIND: Anxiety; fear: with
MIND: Anxiety; health; about
MIND: Anxiety; health; about: own health; one's
MIND: Anxiety; hypochondriacal
MIND: Ardent
MIND: Awkward
MIND: Awkward; drops things
MIND: Busy
MIND: Carefulness
MIND: Cares; full of
MIND: Censorious
MIND: Cheerful
MIND: Cheerful; alternating with, sadness
MIND: Clarity of mind
MIND: Company; aversion to
MIND: Company; desire
MIND: Company; desire for; amel. in company
MIND: Concentration; active
MIND: Concentration; difficult
MIND: Concentration; difficult: headache, with
MIND: Concentration; difficult: studying
MIND: Confident
MIND: Confusion of mind
MIND: Confusion; dream, as if in a
MIND: Conscientious about trifles
MIND: Content
MIND: Delusions
MIND: Delusions; clouds: black cloud enveloped her; a heavy
MIND: Delusions; dead: he himself was
MIND: Delusions; devil; present, is
MIND: Delusions; devil; sees
MIND: Delusions; enlarged
MIND: Delusions; footsteps; hearing
MIND: Delusions; forsaken, is
MIND: Delusions; God: presence of God; he is in the
MIND: Delusions; head: belongs to another
MIND: Delusions; hearing: illusions of
MIND: Delusions; images, phantoms; sees: frightful
MIND: Delusions; images, phantoms; sees: night
MIND: Delusions; influence; one is under a powerful
MIND: Delusions; intoxicated
MIND: Delusions; looking: down, he were looking
MIND: Delusions; people: behind him; someone is
MIND: Delusions; sick, being
MIND: Delusions; small, things: appear small; things
MIND: Despair
*MIND: Detached*
MIND: Discontented
MIND: Discontented; everything, with
MIND: Dream; as if in a
*MIND: Dullness*
MIND: Egotism
MIND: Elated
*MIND: Ennui*
MIND: Estranged: family; from his
MIND: Excitement
MIND: Exhilaration
MIND: Fastidious
*MIND: Fear*
MIND: Fear; alone, of being
MIND: Fear; dark
MIND: Fear; death, of
MIND: Fear; evil; fear of
MIND: Fear; sleep: go to sleep; fear to
MIND: Fear; sudden
MIND: Fear; terror
MIND: Flattering
MIND: Forgetful
*MIND: Forsaken feeling*
MIND: Forsaken feeling, isolation; sensation of
MIND: Generous; too
MIND: Giggling
MIND: Haughty
MIND: Heedless
MIND: High-spirited
MIND: Home; desires to go
MIND: Homesickness
*MIND: Hypochondriasis*
MIND: Ideas; abundant
MIND: Impatience
MIND: Inactivity
*MIND: Indifference*
MIND: Indifference; everything, to
MIND: Industrious
*MIND: Injustice; cannot support*
MIND: Intolerance
**MIND: Irritability**
*MIND: Irritability; morning*
MIND: Irritability; morning, waking on
MIND: Irritability; headache, during
MIND: Irritability; menses, during
MIND: Irritability; trifles, from
MIND: Lamenting
MIND: Lascivious
MIND: Laughing
MIND: Laughing; immoderately
*MIND: Laziness*
MIND: Light; desire for
MIND: Loquacity
MIND: Memory; active
MIND: Memory; weakness of memory: do; for what he was about to
MIND: Mental exertion; agg.
MIND: Mental exertion; impossible
MIND: Mental exertion; aversion to
MIND: Mildness
*MIND: Mirth*
*MIND: Mood; agreeable*
MIND: Mood; changeable
MIND: Morose
MIND: Occupation; amel.
MIND: Passionate
MIND: Pleasing; desire to please others

MIND: Positiveness
MIND: Praying

MIND: Prostration

MIND: Quarrelsome
MIND: Quiet disposition
MIND: Religious affections; too occupied with religion
MIND: Religious; want of religious feeling
MIND: Reproaches; others

MIND: Restlessness
MIND: Restlessness; bed, tossing about in
MIND: Sadness

MIND: Senses; acute
MIND: Senses; dull

MIND: Sensitive
MIND: Sensitive; noise, to
MIND: Sensitive; odors, to
MIND: Sentimental
MIND: Shrieking
MIND: Starting
MIND: Starting; sleep during
MIND: Stupefaction
MIND: Stupor

MIND: Suspicious
MIND: Sympathetic
MIND: Taciturn
MIND: Thinking; complaints: agg.; thinking of his complaints
MIND: Thoughts; sexual
MIND: Thoughts; vanishing of
  *MIND: Tranquility*
MIND: Trifles seem important
MIND: Unobserving
MIND: Vivacious
MIND: Weary of life
MIND: Weeping
MIND: Weeping; anger, after
MIND: Weeping; cannot weep, though sad
MIND: Weeping; easily
MIND: Weeping; sobbing; weeping with
MIND: Weeping; vexation, from

**VERTIGO**
VERTIGO: Vertigo
VERTIGO: Afternoon
VERTIGO: Evening
VERTIGO: Accompanied by: head; pain in head
VERTIGO: Closing eyes; on: amel.
VERTIGO: Fall; tendency to: right, to
VERTIGO: Floating, as if
VERTIGO: Intoxicated; as if
VERTIGO: Motion; head, of: quickly; amel.
VERTIGO: Rising: bed; from
VERTIGO: Rising: seat; from a, on
VERTIGO: Standing; while

**HEAD**
HEAD: Congestion
HEAD: Dandruff
HEAD: Fullness
HEAD: Hair; dryness
HEAD: Hair; greasy

HEAD: Heaviness
HEAD: Heaviness; headache, from

HEAD: Itching of scalp
HEAD: Itching of scalp; scratching, not amel. after
HEAD: Itching of scalp; occiput
HEAD: Itching of scalp; vertex

HEAD: Looseness of brain; sensation of
HEAD: Looseness of brain; sensation of, morning: waking; on

HEAD: Motions in head
HEAD: Pain
HEAD: Pain; daytime
HEAD: Pain; morning
HEAD: Pain; morning, waking: on
HEAD: Pain; afternoon
HEAD: Pain; afternoon, 15h

HEAD: Pain; night
HEAD: Pain; night, midnight: after
HEAD: Pain; accompanied by, nausea
HEAD: Pain; accompanied by, neck: pain in
HEAD: Pain; catarrhal
HEAD: Pain; closing eyes, on
HEAD: Pain; coryza, with
HEAD: Pain; eating, before
HEAD: Pain; exertion, eyes; of the
HEAD: Pain; gastric
HEAD: Pain; light, amel.
HEAD: Pain; motion: agg
HEAD: Pain; motion: eyes, of
HEAD: Pain; pressure: external, agg
HEAD: Pain; rising: lying, from
HEAD: Pain; rubbing: amel.
HEAD: Pain; sitting: amel.
HEAD: Pain; spot, pain in small
HEAD: Pain; violent pains
HEAD: Pain; walking: air, open; in the: while
HEAD: Pain; wind: exposure to; from
HEAD: Pain; extending to, cervical region

HEAD: Pain; Forehead, in
HEAD: Pain; Forehead, in: eyes, above; alternating sides
HEAD: Pain; Forehead, in: eyes, above; left
HEAD: Pain; Forehead, in: extending to: eyes
HEAD: Pain; Forehead, in: pulsating; eyes, behind
HEAD: Pain; Occiput
HEAD: Pain; Occiput: motion; agg.
HEAD: Pain; Occiput: pulsating
HEAD: Pain; Occiput: extending to: ears
HEAD: Pain; Sides: one side
HEAD: Pain; Sides: right
HEAD: Pain; Sides: left

HEAD: Pain; Temples

HEAD: Pain; Temples: right
HEAD: Pain; Temples: left
HEAD: Pain; Temples: left; pulsating
HEAD: Pain; Temples: noise; agg.
HEAD: Pain; Temples: pulsating
HEAD: Pain; Temples: extending to; eye
HEAD: Pain; Temples: extending to; neck
HEAD: Pain; Temples: extending to; jaw
HEAD: Pain; Temples and Occiput
HEAD: Pain; Vertex
HEAD: Pain; aching
HEAD: Pain; boring: Sides

HEAD: Pain; dull pain
HEAD: Pain; dull pain: Forehead
HEAD: Pain; pressing: band; as from a
HEAD: Pain; pressing: cap; like a
HEAD: Pain; pressing: inward
HEAD: Pain; pressing: Forehead
HEAD: Pain; pulsating
HEAD: Pain; sore: temples
HEAD: Skullcap; sensation of a

**EYE**

EYE: Discharges
EYE: Discoloration: red
EYE: Discoloration: yellow

*EYE: Dryness*

EYE: Enlarged, sensation of
EYE: Heaviness: lids

*EYE: Itching*

EYE: Itching; rubbing: amel.

*EYE: Lachrymation*

EYE: Lacrymation; rubbing, after
EYE: Opening the eyelid: difficult
EYE: Pain
EYE: Pain; left
EYE: Pain; lids
EYE: Pain; closing eyes; amel.
EYE: Pain; exertion of eyes; from
EYE: Pain; pulsating
EYE: Pain; reading
EYE: Pain; burning
EYE: Pain; burning: left; extending to right
EYE: Pain; burning: canthi, outer
EYE: Pain; sand, as from
EYE: Pain; sore
EYE: Pain; sore: motion; eyes, of
EYE: Pain; stinging: lids; upper
EYE: Pain; stitching: headache; during
EYE: Photophobia
EYE: Pupils; contracted
EYE: Staring
EYE: Staring; pain: forehead; with pain in
EYE: Styies
EYE: Styies; lids, lower
EYE: Tired sensation
EYE: Twitching
EYE: Twitching; left

VISION
VISION: Blurred
VISION: Dim

EAR
EAR: Abscess; meatus
EAR: Itching; lobes
*EAR: Itching; meatus*
EAR: Pain
EAR: Pain; touch, on
EAR: Pain; soreness
EAR: Swelling; meatus
EAR: Wax; yellow

HEARING
HEARING: Impaired
NOSE

NOSE: Blow the nose; inclination to blow the nose, constant

NOSE: Catarrh

NOSE: Catarrh; postnasal

NOSE: Coryza

NOSE: Coryza; morning

NOSE: Coryza; night

NOSE: Coryza; air: open; amel.

NOSE: Coryza; discharge, with

NOSE: Coryza; discharge, without

NOSE: Coryza; walking amel.

NOSE: Discharge; burning

NOSE: Discharge; copious

NOSE: Discharge; excoriating

NOSE: Discharge; thick

NOSE: Discharge; viscid, tough

NOSE: Discharge; watery

NOSE: Discharge; yellow

NOSE: Hayfever

NOSE: Itching

NOSE: Itching; inside

NOSE: Obstruction

NOSE: Obstruction; right

NOSE: Obstruction; night

NOSE: Obstruction; sensation of

NOSE: Odors; imaginary and real

NOSE: Odors; imaginary and real: dog, wet (N)

NOSE: Pain

NOSE: Smell, acute

NOSE: Sneezing

NOSE: Sneezing; morning
NOSE: Sneezing; frequent
NOSE: Tingling; inside

FACE
FACE: Congestion
FACE: Cracked; lips: lower
FACE: Dryness
FACE: Eruptions
FACE: Eruptions; acne
FACE: Eruptions; acne; papules, with indurated
FACE: Eruptions; acne; rosacea
FACE: Eruptions; acne: forehead
FACE: Eruptions: itching
FACE: Eruptions; pimples
FACE: Eruptions; rash
FACE: Eruptions; vesicles: lips
FACE: Eruptions; vesicles: lips, fever blisters
FACE: Eruptions; zygoma (N)
FACE: Greasy
FACE: Itching
FACE: Pain; right
FACE: Pain; burning
FACE: Pain; pressing
FACE: Pain; pulsating
FACE: Pain; sore: jaw, lower jaw
FACE: Tingling
FACE: Tingling; lips

MOUTH
MOUTH: Dryness; night
MOUTH: Pain; sore: gums
MOUTH: Taste; bad
MOUTH: Taste; bad, morning
MOUTH: Taste; nauseous
MOUTH: Taste; offensive
MOUTH: Taste; sour

TEETH
TEETH: Biting; hard which relieves pains; desire to bite on something
TEETH: Pain; pressing: outward
TEETH: Pain; sore

THROAT
THROAT: Catarrh
THROAT: Discoloration; red
THROAT: Dryness
THROAT: Dryness; morning
THROAT: Hawk; disposition to
THROAT: Inflammation
THROAT: Itching
THROAT: Lump; sensation of
THROAT: Lump; sensation of: swallowing on
THROAT: Mucus
THROAT: Pain
THROAT: Pain; morning
THROAT: Pain; night
THROAT: Pain; swallowing
THROAT: Pain; rawness
THROAT: Pain; sore
THROAT: Roughness
THROAT: Sand in throat; sensation as if
STOMACH
STOMACH: Appetite; capricious appetite
STOMACH: Appetite; diminished
STOMACH: Appetite; increased
STOMACH: Appetite; increased, evening
STOMACH: Appetite; wanting: thirst; with
STOMACH: Eructations
STOMACH: Eructations; type of: foul
STOMACH: Eructations; type of: putrid
STOMACH: Fullness, sensation of
STOMACH: Fullness, sensation of; eating: after
STOMACH: Heaviness; eating: after
STOMACH: Hiccough
STOMACH: Nausea
STOMACH: Nausea; morning
STOMACH: Nausea; afternoon: 16h
STOMACH: Nausea; evening
STOMACH: Nausea; fats, after eating
STOMACH: Nausea; pain, during: abdomen in
STOMACH: Retching
STOMACH: Retching; ineffectual
STOMACH: Thirst
STOMACH: Thirst; extreme
STOMACH: Thirst; large quantities, for
STOMACH: Thirst; unquenchable
STOMACH: Vomiting
STOMACH: Vomiting; morning
STOMACH: Vomiting; type of: bile

ABDOMEN
ABDOMEN: Complaints of abdomen
ABDOMEN: Distension
ABDOMEN: Distension; morning
ABDOMEN: Distension; morning: waking, on
ABDOMEN: Distension; dinner: after
ABDOMEN: Distension; eating, after
ABDOMEN: Distension; hypochondria
ABDOMEN: Distension; hypochondria: left
ABDOMEN: Flatulence
ABDOMEN: Flatulence; evening
ABDOMEN: Flatulence; night
ABDOMEN: Flatulence; eating, after
ABDOMEN: Flatulence; obstructed
ABDOMEN: Heaviness
ABDOMEN: Heaviness; hypogastrium
ABDOMEN: Liver and region of liver; complaints of
ABDOMEN: Pain
ABDOMEN: Pain; morning
ABDOMEN: Pain; eating, after
ABDOMEN: Pain; menses, during
ABDOMEN: Pain; stool: after, amel.
ABDOMEN: Pain; sugar, after
ABDOMEN: Pain; hypochondria
ABDOMEN: Pain; inguinal region
ABDOMEN: Pain; inguinal region, left
ABDOMEN: Pain; umbilicus
ABDOMEN: Pain; umbilicus, region of
ABDOMEN: Pain; cramping
ABDOMEN: Pain; cramping, eating: after
ABDOMEN: Pain; cramping, hypogastrium
ABDOMEN: Pain; cramping: umbilicus, region of
ABDOMEN: Pain; drawing, umbilicus
ABDOMEN: Pain; stitching, umbilicus, region of
RECTUM

RECTUM: Constipation
RECTUM: Constipation; difficult stool
RECTUM: Constipation; insufficient
RECTUM: Diarrhea
RECTUM: Diarrhea; morning
RECTUM: Diarrhea; eating: after

RECTUM: Flatus
RECTUM: Flatus; involuntary
RECTUM: Flatus; offensive
RECTUM: Pain; stool: before
RECTUM: Pain; stool: during
RECTUM: Pain; pressing
RECTUM: Pain; scraping
RECTUM: Urging, frequent
RECTUM: Urging; sudden

STOOL

STOOL: Black
STOOL: Dark
STOOL: Thin

BLADDER

BLADDER: Fullness, sensation of
BLADDER: Fullness, sensation of; urinate; without desire to
BLADDER: Pain; neck, urination: after
BLADDER: Urging to urinate; frequent
BLADDER: Urging to urinate; sudden
BLADDER: Urination; frequent
BLADDER: Urination; involuntary
URETHRA
URETHRA: Pain; burning
URETHRA: Pain; burning, urination; during
URETHRA: Pain; pressing

FEMALE
FEMALE: Conscious of the uterus
FEMALE: Leukorrhea
FEMALE: Menses; clotted
FEMALE: Menses; copious
FEMALE: Menses; late, too
FEMALE: Menses; late, too: two days
FEMALE: Menses; offensive
FEMALE: Menses; painful
FEMALE: Menses; protracted
FEMALE: Pain; uterus
FEMALE: Pain; uterus, menses, during
FEMALE: Pain; uterus: pressure, amel.
FEMALE: Pain; bearing down, uterus: come out; as if everything would
FEMALE: Pain; cramping, uterus: menses during
FEMALE: Pain; labor-like
FEMALE: Pain; labor-like: menses, during
FEMALE: Pain; twisting (N)
FEMALE: Sexual desire, increased
FEMALE: Sexual desire, increased: noon (N)
FEMALE: Sexual desire, increased: night
FEMALE: Sexual desire, increased; cold agg.

RESPIRATION
RESPIRATION: Asthmatic
RESPIRATION: Asthmatic; morning
RESPIRATION: Asthmatic; evening
RESPIRATION: Difficult
RESPIRATION: Difficult; morning
RESPIRATION: Difficult; evening
RESPIRATION: Difficult; accompanied by, cough
RESPIRATION: Difficult; exertion, after
RESPIRATION: Difficult; inspiration
RESPIRATION: Difficult; laughing
RESPIRATION: Impeded, obstructed
RESPIRATION: Impeded, obstruction: oppression; from, chest
RESPIRATION: Wheezing

COUGH
COUGH: Evening; bed, in
COUGH: Dry
COUGH: Dry; tickling, from: larynx; in
COUGH: Irritation; from: air passages, in
COUGH: Irritation; from: larynx, in
COUGH: Irritation; from: trachea, in

EXPECTORATION
EXPECTORATION: Morning
EXPECTORATION: Morning, waking, after
EXPECTORATION: Mucous
EXPECTORATION: Thick
EXPECTORATION: White

CHEST
CHEST: Anxiety in
CHEST: Catarrh
CHEST: Constriction
CHEST: Constriction, morning
CHEST: Eruptions
CHEST: Eruptions; itching
CHEST: Eruptions; rash
CHEST: Eruptions; axilla
CHEST: Itching
CHEST: Itching; sternum

**CHEST: Oppression**
CHEST: Oppression; morning
CHEST: Oppression; inspiration, on

CHEST: Pain
CHEST: Pain; morning
CHEST: Pain; sneezing
CHEST: Pain; mammae, nipples
CHEST: Pain; sides
CHEST: Pain; sides, morning
CHEST: Pain; sides, right
CHEST: Pain; sore: mammae
CHEST: Pain; stitching
CHEST: Pain; stitching: mammae; nipple, right

CHEST: Palpitation of heart
CHEST: Palpitation of heart; anxiety, with
CHEST: Palpitation of heart; motion
CHEST: Palpitation of heart; motion, slightest

CHEST: Swelling; mammae
CHEST: Swelling; mammae: menses; during

**BACK**
BACK: Eruptions; pustules
BACK: Eruptions; rash
BACK: Itching
BACK: Pain
BACK: Pain; menses, during
BACK: Pain; pressure, amel.
BACK: Pain; walking, while
BACK: Pain; cervical region
BACK: Pain; lumbar region
BACK: Pain; lumbar region, left
BACK: Pain; spine
BACK: Pain; aching
BACK: Pain; burning, spine
BACK: Pain; drawing
BACK: Pain; sore, lumbar region
BACK: Pain; sore, spine
BACK: Pain; stitching, lumbar region
BACK: Spasmodic drawing, cervical region
BACK: Stiffness
BACK: Stiffness; cervical region
BACK: Stiffness; cervical region: headache, during
BACK: Stiffness; lumbosacral region

**EXTREMITIES**

EXTREMITIES: Coldness
EXTREMITIES: Coldness; hands
EXTREMITIES: Coldness; foot
EXTREMITIES: Contraction of muscles and tendons
EXTREMITIES: Contraction of muscles and tendons; lower limbs
EXTREMITIES: Convulsion
EXTREMITIES: Convulsion; upper limb
EXTREMITIES: Cramps; menses
EXTREMITIES: Cramps; upper limbs
EXTREMITIES: Cramps; shoulder
EXTREMITIES: Cramps; forearm
EXTREMITIES: Discoloration; hand, redness
EXTREMITIES: Discoloration; foot, redness
EXTREMITIES: Dryness; hands
EXTREMITIES: Eruptions; itching
EXTREMITIES: Eruptions; urticaria
EXTREMITIES: Eruptions; upper limbs, rash
EXTREMITIES: Eruptions; thigh
EXTREMITIES: Eruptions; thigh, pimples
EXTREMITIES: Eruptions; knee, rash
EXTREMITIES: Heaviness
EXTREMITIES: Heaviness; lower limbs
EXTREMITIES: Heaviness; foot
EXTREMITIES: Itching; upper limbs
EXTREMITIES: Itching; upper arm
EXTREMITIES: Itching; lower limbs
EXTREMITIES: Itching; leg
EXTREMITIES: Itching; leg: tibia, over
EXTREMITIES: Nails; brittle nails: finger nails
EXTREMITIES: Numbness; hand
EXTREMITIES: Numbness; hand: right
EXTREMITIES: Numbness; hand: waking, on
EXTREMITIES: Pain
EXTREMITIES: Pain; motion
EXTREMITIES: Pain; rheumatic
EXTREMITIES: Pain; touch, agg.
EXTREMITIES: Pain; warm applications, amel.
EXTREMITIES: Pain; joints
EXTREMITIES: Pain; joints, rheumatic
EXTREMITIES: Pain; upper limbs
EXTREMITIES: Pain; upper limbs, left
EXTREMITIES: Pain; upper limbs, morning
EXTREMITIES: Pain; upper limbs, bending arm; when
EXTREMITIES: Pain; upper limbs, motion
EXTREMITIES: Pain; upper limbs, joints
EXTREMITIES: Pain; shoulder
EXTREMITIES: Pain; shoulder, right
EXTREMITIES: Pain; shoulder, left
EXTREMITIES: Pain; shoulder, extending to: neck
EXTREMITIES: Pain; upper arm: deltoid region
EXTREMITIES: Pain; elbow, bend of
EXTREMITIES: Pain; wrist
EXTREMITIES: Pain; wrist, motion; on
EXTREMITIES: Pain; thigh
EXTREMITIES: Pain; knee: bending, on
EXTREMITIES: Pain; knee: extending limb; amel.
EXTREMITIES: Pain; aching, thigh
EXTREMITIES: Pain; shooting, upper limbs
EXTREMITIES: Pain; shooting, shoulder, right
EXTREMITIES: Pain; sore
EXTREMITIES: Pain; sore, upper limbs
EXTREMITIES: Pain; sore, upper limbs: morning
EXTREMITIES: Pain; sore, shoulder
EXTREMITIES: Pain; sore, upper arm
EXTREMITIES: Pain; sore, forearm
EXTREMITIES: Pain; sore, wrists
EXTREMITIES: Pain; sore, thigh; walking, after
EXTREMITIES: Pain; sore, thigh; posterior part
EXTREMITIES: Pain; stitching
EXTREMITIES: Pain; stitching: shoulder; motion, during
EXTREMITIES: Perspiration; hand, palm
EXTREMITIES: Pulsation; hand
EXTREMITIES: Restlessness
EXTREMITIES: Stiffness
EXTREMITIES: Stiffness; exertion, after
EXTREMITIES: Stiffness; moving: beginning to move; on
EXTREMITIES: Stiffness; resting: after
EXTREMITIES: Stiffness; shoulder
EXTREMITIES: Stiffness; wrist
EXTREMITIES: Stiffness; lower limbs
EXTREMITIES: Stiffness; knee
EXTREMITIES: Trembling; hand
EXTREMITIES: Weakness; knee

SLEEP

SLEEP: Disturbed
SLEEP: Disturbed; anxiety, from
SLEEP: Falling asleep; difficult
SLEEP: Falling asleep; late
SLEEP: Interrupted
SLEEP: Restless
SLEEP: Restless; night: midnight, after
SLEEP: Restless; bodily restlessness, from
SLEEP: Sleepiness
SLEEP: Sleepiness; morning
SLEEP: Sleepiness; forenoon
SLEEP: Sleepiness; heat, during
SLEEP: Sleepiness; weariness, with
SLEEP: Sleeplessness
SLEEP: Sleeplessness; night
SLEEP: Sleeplessness; night: midnight, before
SLEEP: Sleeplessness; night: midnight: morning; until
SLEEP: Sleeplessness; night: midnight; after
SLEEP: Sleeplessness; night: midnight; after, 3h
SLEEP: Sleeplessness; night: midnight; after, 4h, after
SLEEP: Sleeplessness; accompanied by; sleepiness: daytime
SLEEP: Sleeplessness; anxiety from
SLEEP: Sleeplessness; restlessness, from
SLEEP: Sleeplessness; thoughts: activity of thoughts; from
SLEEP: Sleeplessness; waking, after
SLEEP: Sleeplessness; weariness: in spite of weariness

SLEEP: Unrefreshing
SLEEP: Waking; night: midnight; after
SLEEP: Waking; night: midnight; after, 3h
SLEEP: Waking; difficult
SLEEP: Waking; dreams, by
SLEEP: Waking; early, too
SLEEP: Waking; early, too: asleep late; and falling
SLEEP: Waking; frequent
SLEEP: Waking; fright, as from
SLEEP: Waking; heat, from and with
SLEEP: Waking; palpitations with
SLEEP: Yawning

DREAMS
DREAMS: Accusations
DREAMS: Achievement, of
DREAMS: Adventurous
DREAMS: Aggressive
DREAMS: Airplanes, crash of an airplane
DREAMS: Anger
DREAMS: Animals
DREAMS: Anxious
DREAMS: Attacked, of being
DREAMS: Battles
DREAMS: Betrayed, having been
DREAMS: Birds
DREAMS: Children; about
DREAMS: Children; about: abused; being
DREAMS: Children; about: newborns
DREAMS: Choked; being
DREAMS: Clairvoyant
DREAMS: Conspiracies
DREAMS: Dancing
DREAMS: Danger
DREAMS: Danger, escaping from a danger
DREAMS: Danger, impending danger
DREAMS: Dead; of the, relatives
DREAMS: Deceived; being
DREAMS: Desert
DREAMS: Disease
DREAMS: Dogs
DREAMS: Dreaming, of
DREAMS: Driving; car, a
DREAMS: Escaping
DREAMS: Escaping, danger; from
DREAMS: Events, future, of
DREAMS: Events, previous
DREAMS: Falling
DREAMS: Falling, height, from a
DREAMS: Family, own
DREAMS: Fights
DREAMS: Fights, rights; for her
DREAMS: Fish
DREAMS: Fish, rescuing
DREAMS: Fleeing
DREAMS: Forsaken; being
DREAMS: Friends, old
DREAMS: Frightful
DREAMS: Gardens
DREAMS: Happy
DREAMS: Hearing talking
DREAMS: Jaws
DREAMS: Journeys
DREAMS: Jumping: height; from a: landing easily; and
DREAMS: Ludicrous
DREAMS: Men, huge and strong man; a: controlling her
DREAMS: Misfortune
DREAMS: Mistakes; of making
DREAMS: Mortification
DREAMS: Nightmares
DREAMS: Nostalgic
DREAMS: Nuns
DREAMS: Parties
DREAMS: People
DREAMS: People, seen for years; people not
DREAMS: Pleasant
DREAMS: Praying
DREAMS: Prophetic
DREAMS: Pursued, being
DREAMS: Pursued, being, man; by a
DREAMS: Pursued, being: man; by a: violate her; to
DREAMS: Religious
DREAMS: Restless
DREAMS: Rousing the patient
DREAMS: Running
DREAMS: Secret
DREAMS: Shooting; about
DREAMS: Sister
DREAMS: Stairs
DREAMS: Suffocation
DREAMS: Teeth
DREAMS: Teeth: falling out
DREAMS: Tunnel
DREAMS: Unimportant
DREAMS: Unpleasant
DREAMS: Unremembered
DREAMS: Vexatious
DREAMS: Violence
DREAMS: Visionary
DREAMS: Visits, making visits, relatives; to
DREAMS: Voice
DREAMS: War
DREAMS: Water
DREAMS: Writing

CHILL
CHILL: Chill

FEVER
FEVER: Fever, heat in general

SKIN
SKIN: Burning
SKIN: Coldness
SKIN: Dry
SKIN: Dry; perspire; inability to
SKIN: Eruption; itching
SKIN: Eruption; rash
SKIN: Eruption; stinging
SKIN: Eruption; urticaria
SKIN: Formication
SKIN: Itching
SKIN: Itching; scratching, amel.
SKIN: Prickling
SKIN: Sensitiveness
GENERALS

**GENERALS: Morning**

**GENERALS: Morning; waking, on**

**GENERALS: Afternoon**

**GENERALS: Afternoon; 16h**

**GENERALS: Afternoon; 17h**

**GENERALS: Night**

**GENERALS: Night; midnight, after**

**GENERALS: Activity; amel.**

**GENERALS: Air; open air, desire for**

**GENERALS: Bathing; warm bathing: amel.**

**GENERALS: Bending; affected part, agg.**

**GENERALS: Cold; agg.**

**GENERALS: Cold; amel.**

**GENERALS: Energy; excess of**

**GENERALS: Exertion physical; agg.**

**GENERALS: Faintness**

**GENERALS: Faintness; crowded; in: room**

**GENERALS: Food; chocolate, desire**

**GENERALS: Food; cold drink, cold water; desire**

**GENERALS: Food; fat, desire**

**GENERALS: Food; fish, desire**

**GENERALS: Food; food: aversion; accompanied, hunger**

**GENERALS: Food; fruit: desire; fruit juice**

**GENERALS: Food; juicy things, desire**

**GENERALS: Food; meat, desire**

**GENERALS: Food; onions: agg.**

**GENERALS: Food; pastry, desire**

**GENERALS: Food; rich food: agg.**

**GENERALS: Food; spices, desire**

**GENERALS: Food; sugar, desire**
GENERALS: Food; sweet, agg.

GENERALS: Food; sweets, desire

GENERALS: Heat; flushes of

GENERALS: Heat; sensation of

GENERALS: Heat; sensation of, night

GENERALS: Heaviness; externally

GENERALS: Influenza

GENERALS: Irritability, physical: excessive

GENERALS: Knotted sensation internally

GENERALS: Lassitude

GENERALS: Lassitude; afternoon

GENERALS: Motion; agg.

GENERALS: Motion; desire for

GENERALS: Mucous secretions; increased

GENERALS: Numbness; internally

GENERALS: Pain; spots, in small

GENERALS: Pain; muscles

GENERALS: Pain; sore

GENERALS: Pain; sore, externally

GENERALS: Pain; twisting

GENERALS: Pressure; agg.

GENERALS: Pulse; frequent

GENERALS: Pulse; frequent, motion agg.

GENERALS: Rubbing; amel.

GENERALS: Sick feeling; vague

**GENERALS: Sides; right**

GENERALS: Sides; left: then right side

GENERALS: Sleep; loss of sleep, from

GENERALS: Sleep; short sleep amel.

**GENERALS: Sluggishness of the body**

GENERALS: Strength, sensation of

GENERALS: Touch; agg.
GENERALS: Trembling; externally
GENERALS: Trembling; externally, anger: from
GENERALS: Trembling; internally
GENERALS: Twitching
GENERALS: Uncovering; amel.
GENERALS: Walking; agg.
GENERALS: Warm; amel.
GENERALS: Weakness
GENERALS: Weakness; morning
GENERALS: Weakness; morning: waking, on
GENERALS: Weakness; evening
GENERALS: Weakness; stool, after

**GENERALS: Weariness**
GENERALS: Weariness; morning
GENERALS: Weariness; morning: waking, on
GENERALS: Weariness; afternoon
GENERALS: Weariness; afternoon, 16h
GENERALS: Weariness; evening
## APPENDIX N: Tabulation of Blood Results

### VERUM

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**Notes:**
- Values are based on laboratory measurements.
- ESR values are given in mm/hour.
APPENDIX N: Tabulation of Blood Results

Page 2


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# APPENDIX N: Tabulation of Blood Results

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| Unconjugated Bilirubin | | |
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STATISTICAL ANALYSIS OF BLOOD RESULTS

Erythrocyte sedimentation rate (ESR)

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The intervention effect was just statistically significant for ESR overall (p=0.049). Specific contrasts showed that between time point 2 and 1 there was a significant difference between the rates of change of the two groups (p=0.026) as well as between time points 3 and 2 (p=0.007).

Figure 1: ESR over time by group

Haemoglobin (Hb)

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<td>F=0.206</td>
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There was no significant effect of the prover compared with the placebo on Haemoglobin measurements overall ($p=0.619$), or between any specific time points.

**Figure 2: Haemoglobin over time by group**

Red cell count (RCC)

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<td>$F=4.823$</td>
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Although there were significant time and group effects, there was no significant interaction effect overall ($p=0.751$), or between any specific time points, which meant that the rate of change over time was independent of which group the participant was treated in.

**Figure 3: RCC over time by group**
### Haematocrit

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<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.880</td>
<td>0.334</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.470</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.103</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.151</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.345</td>
</tr>
<tr>
<td>Group</td>
<td>F=0.307</td>
<td>0.584</td>
</tr>
</tbody>
</table>

Although there was a significant time effect, there was no significant interaction effect overall (p=0.334), nor between any specific time points, which meant that the rate of change over time was independent of which group the participant was treated in.

*Figure 4: Haematocrit over time by group*

### Mean corpuscular volume (MCV)

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.721</td>
<td>0.034*</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.675</td>
<td>0.016*</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.002*</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.073</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.077</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.527</td>
</tr>
<tr>
<td>Group</td>
<td>F=2.032</td>
<td>0.165</td>
</tr>
</tbody>
</table>
The intervention effect was statistically significant for MCV overall ($p=0.016$), and specifically between time points 1 and 2 ($p=0.002$) but not between any other time points.

**Figure 5: MCV over time by group**

### Mean corpuscular haemoglobin (MCH)

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.835</td>
<td>0.189</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.984</td>
<td>0.932</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.886</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.974</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.524</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.895</td>
</tr>
<tr>
<td>Group</td>
<td>$F=1.493$</td>
<td>0.232</td>
</tr>
</tbody>
</table>

There was no significant effect of the prover compared with the placebo on MCH measurements overall ($p=0.932$), not between any specific time points.

**Figure 6: MCH over time by group**
### Mean corpuscular haemoglobin concentration (MCHC)

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.932</td>
<td>0.600</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.828</td>
<td>0.172</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td><strong>0.031</strong>*</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.145</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.077</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.532</td>
</tr>
<tr>
<td>Group</td>
<td>F=0.326</td>
<td>0.572</td>
</tr>
</tbody>
</table>

There was a non-significant treatment effect for this outcome overall (p=0.172), but the difference in rate of change between the two groups was significantly different between time points 1 and 2 (p=0.031).

![Figure 7: MCHC over time by group](image)

### Red blood cell distribution width (RDW)

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.912</td>
<td>0.485</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.967</td>
<td>0.830</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.355</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.495</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.439</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.590</td>
</tr>
<tr>
<td>Group</td>
<td>F=2.382</td>
<td>0.134</td>
</tr>
</tbody>
</table>
There was no treatment effect for RDW over time overall \((p=0.830)\), nor between the specific time point comparisons.

Figure 8: RDW over time by group

There was no significant treatment effect for Platelets overall \((p=0.280)\), nor between the specific time points. There was a borderline non-significant effect between time points 3 and 1 \((p=0.054)\).

Figure 9: Platelets over time by group
White cell count (WCC)

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.972</td>
<td>0.859</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.947</td>
<td>0.694</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.689</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.652</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.437</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.368</td>
</tr>
<tr>
<td>Group</td>
<td>F=0.600</td>
<td>0.445</td>
</tr>
</tbody>
</table>

There was no significant treatment effect for WCC overall (p=0.694), nor between any specific time points. However, Figure 10 shows opposite effects for each group: the placebo group showed a general decrease in WCC over time, while the prover group showed a decrease followed by an increase up to baseline levels.

Figure 10: WCC over time by group

Neutrophil percentage

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.967</td>
<td>0.831</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.919</td>
<td>0.524</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.232</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.675</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.794</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.588</td>
</tr>
<tr>
<td>Group</td>
<td>F=0.006</td>
<td>0.937</td>
</tr>
</tbody>
</table>
Although the interaction effect was not statistically significant overall \((p=0.524)\), nor between any specific time points, Figure 11 shows that the effects over time were not the same in the two groups.

**Figure 11: Neutrophil percentage over time by group**

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.933</td>
<td>0.980</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.950</td>
<td>0.714</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.873</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.840</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.403</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.740</td>
</tr>
<tr>
<td>Group</td>
<td>(F=0.214)</td>
<td>0.648</td>
</tr>
</tbody>
</table>

Although the interaction effect was not statistically significant overall \((p=0.714)\), nor between any specific time points, Figure 12 shows that the effects over time were not the same in the two groups after time 3.

**Figure 12: Neutrophil count over time by group**
## Lymphocyte percentage

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.986</td>
<td>0.943</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.930</td>
<td>0.589</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.475</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.947</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.490</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.593</td>
</tr>
<tr>
<td>Group</td>
<td>F=0.020</td>
<td>0.889</td>
</tr>
</tbody>
</table>

There was no significant treatment effect on Lymphocyte percentage overall (p=0.589), nor between any specific time points.

*Figure 13: Lymphocyte percentage over time by group*

## Lymphocyte count

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.935</td>
<td>0.620</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.796</td>
<td>0.110</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.546</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.287</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.957</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td><strong>0.019</strong></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>F=0.898</td>
<td>0.351</td>
</tr>
</tbody>
</table>
There was a non-significant treatment effect on Lymphocyte count overall \((p=0.110)\), however, between time point 3 and 2 there was a significantly different rate of change over time between the treatments \((p=0.019)\).

**Figure 14: Lymphocyte count over time by group**

### Monocyte percentage

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.956</td>
<td>0.755</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.947</td>
<td>0.694</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.777</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.235</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.510</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.456</td>
</tr>
<tr>
<td>Group</td>
<td>(F=0.855)</td>
<td>0.363</td>
</tr>
</tbody>
</table>

Although the effect of the intervention was not significant for Monocyte percentage overall \((p=0.694)\), nor between any specific time points, the trend suggested by **Figure 15** was that the prover group showed an increase over time while the placebo group showed a general slight decrease.

**Figure 15: Monocyte percentage over time by group**
Monocyte count

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.971</td>
<td>0.854</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.946</td>
<td>0.689</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.783</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.584</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.263</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.742</td>
</tr>
<tr>
<td>Group</td>
<td>F=0.022</td>
<td>0.883</td>
</tr>
</tbody>
</table>

Although the effect of the treatment was not statistically significant overall (p=0.689), nor between any specific time points, there was a trend towards a treatment effect.

![Figure 16: Monocyte count over time by group](image)

Eosinophil percentage

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.909</td>
<td>0.470</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.830</td>
<td>0.176</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.029*</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.044*</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.114</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.924</td>
</tr>
<tr>
<td>Group</td>
<td>F=0.00</td>
<td>0.986</td>
</tr>
</tbody>
</table>
There was a non-statistically significant trend of a treatment effect on Eosinophil percentage overall ($p=0.176$), however, between time 2 and 1 ($p=0.029$) and between time 3 and 1 ($p=0.044$) the rate of change of the two groups were significantly different.

*Figure 17: Eosinophil percent over time by group*

**Eosinophil count**

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td><em>Wilk’s Lambda</em>=0.902</td>
<td>0.435</td>
</tr>
<tr>
<td>Time*group</td>
<td><em>Wilk’s Lambda</em>=0.861</td>
<td>0.264</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.097</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.429</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.156</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.282</td>
</tr>
<tr>
<td>Group</td>
<td>$F=0.407$</td>
<td>0.529</td>
</tr>
</tbody>
</table>

There was no significant difference in the rate of change over time between the treatment groups for Eosinophil count overall ($p=0.264$), nor between any specific time points.

*Figure 18: Eosinophil count over time by group*
### Basophil percentage

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.859</td>
<td>0.260</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.776</td>
<td>0.082</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.220</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.554</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.787</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.016*</td>
</tr>
<tr>
<td>Group</td>
<td>$F=0.482$</td>
<td>0.493</td>
</tr>
</tbody>
</table>

There was a borderline non-significant difference in rate of Basophil percentage change over time between the treatment groups overall ($p=0.082$) and a statistically significant effect between time points 3 and 2 ($p=0.016$).

*Figure 19: Basophil percentage over time by group*

### Basophil count

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.904</td>
<td>0.443</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.722</td>
<td>0.035*</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.031*</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.762</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.545</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.009*</td>
</tr>
<tr>
<td>Group</td>
<td>$F=0.066$</td>
<td>0.800</td>
</tr>
</tbody>
</table>
There was a statistically significant intervention effect for Basophil count overall \((p=0.035)\) and specifically between time points 1 and 2 \((p=0.031)\) and time points 2 and 3 \((p=0.009)\).

**Figure 20: Basophil count over time by group**

Total protein

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk's Lambda=0.677</td>
<td>0.013*</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk's Lambda=0.995</td>
<td>0.987</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.940</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.967</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.816</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.956</td>
</tr>
<tr>
<td>Group</td>
<td>(F=0.388)</td>
<td>0.538</td>
</tr>
</tbody>
</table>

There was no treatment effect for Total protein overall \((p=0.987)\), nor between any specific time points, although both groups decreased significantly over time \((p=0.013)\).

**Figure 21: Total protein over time by group**
**Albumin**

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.532</td>
<td>0.001*</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.984</td>
<td>0.930</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.512</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.572</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.837</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.919</td>
</tr>
<tr>
<td>Group</td>
<td>F=0.017</td>
<td>0.896</td>
</tr>
</tbody>
</table>

There was no treatment effect for Albumin overall \( (p=0.930) \), nor between any specific time point, although both groups decreased significantly over time \( (p=0.001) \).

*Figure 22: Albumin over time by group*

**Globulin**

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.927</td>
<td>0.557</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.996</td>
<td>0.990</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.846</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.821</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.730</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.991</td>
</tr>
<tr>
<td>Group</td>
<td>F=0.270</td>
<td>0.607</td>
</tr>
</tbody>
</table>
There was no treatment effect for Globulin overall ($p=0.990$), nor between any specific time points.

**Figure 23: Globulin over time by group**

### Total bilirubin

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.957</td>
<td>0.761</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.947</td>
<td>0.694</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.565</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.873</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.444</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.484</td>
</tr>
<tr>
<td>Group</td>
<td>$F=0.002$</td>
<td>0.963</td>
</tr>
</tbody>
</table>

There was no treatment effect for Total bilirubin overall ($p=0.694$), nor between any specific time points.

**Figure 24: Total bilirubin over time by group**
Conjugated bilirubin

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.734</td>
<td>0.042*</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.837</td>
<td>0.194</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.449</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.035*</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.379</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.133</td>
</tr>
<tr>
<td>Group</td>
<td>F=1.343</td>
<td>0.256</td>
</tr>
</tbody>
</table>

Although the treatment effect was not statistically significant overall (p=0.194), the rate of change of Conjugated bilirubin between time point 3 and 1 was significantly different (p=0.035).

Figure 25: Conjugated bilirubin over time by group

Unconjugated bilirubin

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.955</td>
<td>0.747</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.951</td>
<td>0.721</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.425</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.648</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.293</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.690</td>
</tr>
<tr>
<td>Group</td>
<td>F=0.145</td>
<td>0.706</td>
</tr>
</tbody>
</table>
There was no significant effect of the intervention on Unconjugated bilirubin overall \( (p=0.721) \), nor between any specific time points. However, the rate of increase over time was steeper in the prover group than the placebo group.

**Figure 26: Unconjugated bilirubin over time by group**

### Alkaline phosphatase

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.715</td>
<td>0.027*</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.952</td>
<td>0.720</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.305</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.283</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.917</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.697</td>
</tr>
<tr>
<td>Group</td>
<td>( F=3.881 )</td>
<td>0.058</td>
</tr>
</tbody>
</table>

There was no treatment effect for Alkaline phosphatase overall \( (p=0.720) \) nor between any specific time points, although there was an almost significant baseline difference between the groups \( (p=0.058) \) and a significant change over time in both groups \( (p=0.027) \).

**Figure 27: Alkaline phosphatase over time by group**
γ-Glutamyl transpeptidase (Gamma GT)

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.941</td>
<td>0.644</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.911</td>
<td>0.466</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.446</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.179</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.404</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.386</td>
</tr>
<tr>
<td>Group</td>
<td>F=1.667</td>
<td>0.207</td>
</tr>
</tbody>
</table>

There was no treatment effect for Gamma GT overall (p=0.466), nor between any specific time points.

![Figure 28: Gamma GT over time by group](image)

Alanine transaminase (ALT)

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.978</td>
<td>0.893</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.859</td>
<td>0.242</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.132</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.041*</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.413</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.262</td>
</tr>
<tr>
<td>Group</td>
<td>F=0.190</td>
<td>0.666</td>
</tr>
</tbody>
</table>
The treatment effect on ALT was not statistically significant overall \((p=0.242)\), but between time points 3 and 1 there was a significantly different rate of change between the groups \((p=0.041)\).

**Figure 29: ALT over time by group**

### Aspartate aminotransferase (AST)

<table>
<thead>
<tr>
<th>Effect</th>
<th>Statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Wilk’s Lambda=0.922</td>
<td>0.524</td>
</tr>
<tr>
<td>Time*group</td>
<td>Wilk’s Lambda=0.937</td>
<td>0.620</td>
</tr>
<tr>
<td>Time*group (2 vs 1)</td>
<td></td>
<td>0.211</td>
</tr>
<tr>
<td>Time*group (3 vs 1)</td>
<td></td>
<td>0.298</td>
</tr>
<tr>
<td>Time*group (4 vs 1)</td>
<td></td>
<td>0.716</td>
</tr>
<tr>
<td>Time*group (3 vs 2)</td>
<td></td>
<td>0.657</td>
</tr>
<tr>
<td>Group</td>
<td>(F=1.006)</td>
<td>0.324</td>
</tr>
</tbody>
</table>

There was no evidence of a treatment effect on AST overall \((p=0.620)\), nor at any specific time points.

**Figure 30: AST over time by group**
### Compound Table

<table>
<thead>
<tr>
<th>Compound Label</th>
<th>RT</th>
<th>Mass</th>
<th>Abund</th>
<th>Formula</th>
<th>Tgt Mass</th>
<th>Diff (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cpd 2: C21H26N2O4</td>
<td>13.445</td>
<td>390.1897</td>
<td>1559</td>
<td>C21=26N2O4</td>
<td>390.1893</td>
<td>0.94</td>
</tr>
<tr>
<td>Cpd 4: C21H24N2O3</td>
<td>13.459</td>
<td>352.1787</td>
<td>897</td>
<td>C21=24N2O3</td>
<td>352.1787</td>
<td>0.94</td>
</tr>
</tbody>
</table>

### Compound Label | RT | Algorithm | Mass
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cpd 2: C21H26N2O4</td>
<td>13.445</td>
<td>Find By Formula</td>
<td>390.1897</td>
</tr>
</tbody>
</table>

![Mass Spectrogram](image1)

![NS Spectrum](image2)

![NS Spectrum](image3)
APPENDIX P: Results of Phytochemical Analysis
APPENDIX P: Results of Phytochemical Analysis
### MS Spectrum Peak List

<table>
<thead>
<tr>
<th>m/z</th>
<th>Calc m/z</th>
<th>Diff (ppm)</th>
<th>z</th>
<th>Abund</th>
<th>Formula</th>
<th>Ion</th>
</tr>
</thead>
<tbody>
<tr>
<td>307.1772</td>
<td>307.1772</td>
<td>-1</td>
<td>897</td>
<td>(M+HCOO)-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>368.1803</td>
<td>368.1803</td>
<td>-1</td>
<td>211</td>
<td>(M+HCOO)-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>399.1922</td>
<td>399.1922</td>
<td>-1</td>
<td>30</td>
<td>C22 H25 N2 O5 (M+HCOO)-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>307.0864</td>
<td>307.0864</td>
<td>10</td>
<td>276</td>
<td>(M+HCOO)-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>309.0953</td>
<td>309.0953</td>
<td>15</td>
<td>276</td>
<td>(M+HCOO)-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>309.1238</td>
<td>309.1238</td>
<td>15</td>
<td>276</td>
<td>(M+HCOO)-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>309.1632</td>
<td>309.1632</td>
<td>1035</td>
<td>30</td>
<td>C22 H25 N2 O5 (M+HCOO)-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>310.1644</td>
<td>310.1644</td>
<td>30</td>
<td>421</td>
<td>(M+HCOO)-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>311.1614</td>
<td>311.1614</td>
<td>41</td>
<td>421</td>
<td>(M+HCOO)-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>367.1772</td>
<td>367.1769</td>
<td>-0.04</td>
<td>897</td>
<td>C22 H25 N2 O5 (M+HCOO)-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>368.1803</td>
<td>368.1801</td>
<td>-0.05</td>
<td>211</td>
<td>C22 H25 N2 O5 (M+HCOO)-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>399.1922</td>
<td>399.1825</td>
<td>-1.34</td>
<td>30</td>
<td>C22 H25 N2 O5 (M+HCOO)-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### MS Zoomed Spectrum

- **Cpd 4**: C21H24N2O3 - scan (13.292-14.034 min) Stychnos MeOH Extr ESI Neg, d
- **Cpd 4**: C21H24N2O3 - ESIScan (13.292-14.084 min, 68 scans) Freq=175.0V Stychnos MeOH Extr.
**APPENDIX P: Results of Phytochemical Analysis**

### Compound Table

<table>
<thead>
<tr>
<th>Compound Label</th>
<th>RT</th>
<th>Mass</th>
<th>Abund</th>
<th>Formula</th>
<th>Tgt Mass</th>
<th>DIP (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cpd 8: C21H26N2O4</td>
<td>14.769</td>
<td>370.1893</td>
<td>5569</td>
<td>C21H26N2O4</td>
<td>370.1893</td>
<td>0.22</td>
</tr>
</tbody>
</table>

### Compound Label

<table>
<thead>
<tr>
<th>Compound Label</th>
<th>RT</th>
<th>Algorithm</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cpd 8: C21H26N2O4</td>
<td>14.769</td>
<td>Found by Formula</td>
<td>370.1893</td>
</tr>
</tbody>
</table>

### MS Spectrum

- **Cpd 8: C21H26N2O4**: ESI/ESI (175.0088, 177.0965, 185.0941, 185.1013, ...) Scan Frag=175.00 V.S.
- **Cpd 8: C21H26N2O4**: Scan (14.654-14.374 min) Strychnos MeOH Exir ESI Pos b.d
- **Cpd 8: C21H26N2O4**: ESI Scan (14.654-14.374 min, 20 scans) Frag=175.00 Strychnos MeOH Exir
APPENDIX P: Results of Phytochemical Analysis
KWAZULU-NATAL – NORTHERN INTERIOR: Melmoth

SANGOMA 1 [S1M]: 37

Interviewer: Siyabingelela-ke emakhosini.

S1M: Awu, siyabingelela.


S1M: Hhayi, akunankinga. Singaqhubeka.


S1M: Ukuba yisangoma kusho ukuthi kuyayifikela. Ukuyifikela kwakhona kuwukuthi ngoba usuke unikeziwe abadala. Kanjalo ukuthi, mhlambe, mangabe noma wayekhona kudala owakini, noma wayeyisangoma, noma


**Interviewer:** *Yini le ekhulumayo, elo kubiza?*


**Interviewer:** *Manje bakhuluma ngezithombe noma amazwi akhulumayo?*


Nawu-ke lo muthi ongasiza ukuthi aphile futhi lo muntu egazini lakhe. Akusebenzeke ngalo muthi uzonedele uwudla njalo-ke lo muthi umqondo uze

**Interviewer:** *Okhulumayo umuntu?*


**Interviewer:** *Ngizwa kahle. Manje uma esefikile umuntu, ubona kanjani ukuthi yilo muthi ozosebenza? Utshelwa yini noma ubona ngani?*

**S1M:** Kusho ukuthi uma esefikile umuntu ukuthongo, ngitshelwa yilona ukuthi lo muntu angasizwa yilo muthi.

**Interviewer:** *Utshelwa yini-ke?*

usukhipha imithi uyazi ukuthi lo muthi uzomsiza lo muntu. Uyazi ukuthi lo muthi uzomsiza lo muntu. Umnikeze umuntu, asinde futhi.

**Interviewer:** Leli yizwi lomuntu wesilisa? Ukhokho wesilisa noma umuntu wesifazane noma?


**APPENDIX Q(i):** Transcription of Field Interviews *(isiZulu)*
**Interviewer:** Le nto yenzakala ephusheni noma emini uhlezi?


Njengoba uyanse ubone ukuthi uma befika emasontweni, uuthola ukuthi uyanse asonte umuntu asonte bese kuvuka. Kusuke kusoko ukuthi kuyena kusakhiyekile ngaphakathi akukakaqhumzi ukuthi kuvele into ongayibona kumuntu. Ngalesi sikhathi uma kuke kwabobo le nto eqhuma ngaphakathi kuthi, “Siyakudedela-ke manje”, yilesi sikhathi azokwazi ukuthi ahlolele umuntu ngoba kusuke kusamtshela ukuthi uyazibona wena!


Interviewer: Uma ufika lapha ekwethwase kwenzakalani lapho? Khona wenzani uma uthwasa?


Laphayana, kusuke kwukuthi futhi uyalelwa. Uyoyalwa ukuthi ungathi into uma ifika ukuthi mhlambe ngizothi wena ingani wena wanquma umuntu wena! Ingani wena wantshontsha into uwokuthi! Usuke uyohlalela lapho ukuthi izinto ozhikulumayo uzigweme ukuthi zingase zibe yinkinga nanakuwena, nanokuthi ungabalalisi abantu. Uma uhlola, kufuna kube khona izinto ongasho ukuthi nangu umuntu olokhu, okubuleleyo. Usuke uyofundiselwa izinto ezinizalo futhi, ube uthathiwe bakuthatha bayokuphonsa laphayana.

Interviewer: Manje, uma usubuya-ke indima yakho emphakathini, usudlala yiphi indima uma usubuyile emphakathini ususebenza?

S1M: Uma sengisebenza kusho ukuthi lapho, Bhuti, lapho kuyazifikela. Ngoba abanye abantu uyane ehambe eyokwethwasa kodwa kungabi bikho muntu ozofika, mhlambe, afike ngalesi sikhathi esafika kuthi ekugcineni ubone hhayi khona sekuthi ngq! Manje abantu abasafiki. Futhi engeke ngikuthathe ngithi yimina engingakuthatha ngithathe into esuke yenziwa omunye. Abanye bese kulahleka ngokuthi-ke akasawenzii lo msebenzi akasawucini lo mthetho owunikezwe yilaba bantu okuyobona abamthathile bayomphonsa kulowa muzi ukuthi awuhambe uyokwethwasa ukuze


**Interviewer:** Manje ngokubona kwakho, kukhona yini ubudlelwane nokuhlobana phakathi kwendlela enilaphangayo nina bendabuko nale ndlela-ke le abesilungu abelapha ngayo? Uyabubona yini ubudlelwane obukhona? Bukhona yini nomu abukho, ngokubona kwakho?


**Interviewer:** *Sengisho-ke ukuhlobana kwendlela imithi yenu esebenza ngayo nanalena yesilungu esebenza ngayo. Uyabubona yini ubudlelwane emuthini nanendlela enelapha ngayo? Ukuthi kuyahambisana yini?*

Uma futhi lokhu eyile yena ekilinikhi ngoba nabo bayasho ukuthi, “Hhayi! Oke uhambe uye kubantu besiZulu”, baye bamtshele abanye bayane besho nabo impela abafihli, Nkosi yami.


**Interviewer:** *Manje, lemithi yesintu ngabe uyabona ukuthi isebenza ngokufana nale yabelungu uma uyibuka?*

**S1M:** Le mithi yesintu isebenza ngokufana ngendlela engibuka ngayo, kodwa futhi ukusebenza kwayo ngokufana yehlukile eminye. Eminye isebenza ngokufana, Bhuti. Ngizokubekela kanje nawe into ozoyibona ukuthi eminye isebenza ngokufana, uma ubuka indlela umuntu eyisebenzisa ngayo, futhi naye asinde futhi. Kwasinye isikhathi eminye yeahlwe. Lyasebenza eminye
ngokufana, eminye futhi yehluke. Ongeke-ke mina ngapha ngazi ukuthi yini into esuke ifakiwe laphaya ephilisini, noma mhlambe emjovweni, kodwa manje uthola ukuthi kanti kusebenze. Kukhona ikhambi eliyisihlahla eligondene mhlambe nalo muthi lona, abazolithatha lingene laphana liyodonswa lidonswe, liphekwe ngaleyondlela eliphekwa ngayo, ebese lingena laphayana ephilisini uthole ukuthi isiyafana ncinishi.

**Interviewer:** *Ngabe niyakusebenzisa yini lokhu ukuthi, “Iva likhishwa ngelinye iva”*?


Ingani, uyane ubone usikekile enyameni yakho, kodwa manje, kule nyama le uzohamba uthole ukuthi isikekile unembobo. Uzohamba uyothongwwa khona lapho obuye uzwe khona ubuhlengu uthi ngiyezwa lapha ubuhlengu lapha. Ingani manje likhishwa elinye manje ngoba phela kubuhlengu vele.

**Interviewer:** *Imithi yesiZulu ikhona yini esebezena kanjalo?*

**S1M:** Esebenza ngoku?

**Interviewer:** *Cha, ngokuthi nje mhlambe uma ngabe umuntu evuvukele nawi uthole ukuthi uyavuvukalisa, uthole ukuthi njengokuthoba kanje izinto ezinjalo, njengokuthoba uthola ubuhlengu ukuthoba nakho kubuhlengu. IsiZulu ngabe siyayisebenzisa yini into enjalo?*

**S1M:** Ukuthoba nakho kubuhlengu, ngingasho kanjalo kubuhlengu ngoba kukhona ukuthi siyakusebenzisa ngoba. Vele usuke uthoba nje, usuke

**Interviewer:** Siyabonga-ke kuleyo ndawo. Ngifuna–ke ake sibuze-ke ngalo muthi esize ngawo umqalothi. Umqalothi lona endle nje uwubona ngani ezihlahleni? Ezihlahleni nje ubonakala ngani?


**Interviewer:** Uvunwa kanjani, noma uvunwa nini?

**S1M:** Uvununwa kwawo? Uvunwa noma yisiphi isikhathi kodwa uyawubona phela ukuthi usufanele-ke manje ukube ngingawusebenzisa. Uyawubona ukuthi usemncane lona angeke ngilithole igxolo lalo muthi lona ake ngiphinde-ke ngibheke omunye futhi ngibone ukuthi, “Hhayi, usu-right lona, sengingathi uma ngiwusebenzisa”, usebenze.

**Interviewer:** Sisuke sesinjani-ke isihlahla osubona ukuthi ungasisebenzisa?

**S1M:** Sisuke sesikhulile, usubona ukuthi namagxolo akhona asethanda ukuba magqezugqezu asengathi ayaxebuka. Bese uyabona-ke ukuthi usungawusebenzisa, hhayi lo osemncane... hhayi lo osemncane.
Interviewer: Nanesikhathi sosuku, ekuseni noma ntambama? Akunankinga ukuthi uwuvuna nini?


Interviewer: Welapha zipla izifo?


Interviewer: Kodwa owekhandla lenimoya?


Uyazi kakhona ukuthi umuthi engingakudlisa wona, angiwufanekiseli njengoba ngisho: ukuthi usuke uncike njengasemithini yemimoya othola ukuthi ngalesi sikathi, uma usuwusebenzisa, uyezwa kakhona izinto ezidlikizayo. Kusuke kukuqeshiswa ukuthi lo muthi lo njengoba uwusebenzisa uqondene naye.


**Interviewer:** *Kulo muthi othi ubulawu, osunomqalothi phakathi?*

**S1M:** Lo muthi wobulawu, lo lowo udibene ngokuthi uwashe igazi lakho-ke.

**Interviewer:** *Uma uthi uwasha igazi uchaza ukuthini?*

**S1M:** Okusho ukuthi igazi, uyabona, lijike likhombise, uyabona, okungathi ungumuntu ohleli kahle. Kanti ukhipha isidina kuwen. Uyayibona le nto enjalo?

**Interviewer:** *Uthandeke?*

Interviewer: Yiziphi-ke ezinye izigulo-ke oyane uwusebenzise khona lo muthi umqalothi?


Siphinde siwusebenzise kakhulukazi uma umuntu ephethe yisisu - isisu esisikayo, esidonsanayo. Kodwa sibe singamukhiphi. Uyawuthatha uwugxobe, uwufake emanzipini bese uyanphuzisa into enguhhafwenkomishi. Siwusebenzisa futhi uma umuntu ephethe yilumbo, okuyisifo socansi kumuntu wesilisa noma wesifazane. [Recorder battery fails]
NYANGA 1 [N1M]: ¶ 73

**Interviewer:** Siyakubingelele-ke

**N1M:** Yebo, sanibonani.

**Interviewer:** Cha sesithi asifi ke ngoba ngangicelile ukwenza ucwaningo lwami...

**N1M:** Yebo.


**Interviewer:** Ngaphambi kokuthi sibuze ngawo-ke, ngicela nje usithi fahla ukuthi umuntu ufinyelela kanjani kule ndawo ukuyona? Kulesi sinkhundla okusona njengoba nje usiza abantu kanje. Kusukelaphi?


Kuthe ngelinye ilanga lokhu, ngiwadlalisa lokhu ngiwadlalisa ngiwathi, wase ethi undodana ake senze into ethile sihambe siyohlola lapha kumkhulu. Nangempela ngafike ngathi kukanje kanje ah! Baphuma beshaya ihlombe
bethi, ayikhona impela, ayakhulumama la mathambo! Unomphelo-ke from 2001 toti...toti...toti... akhuphuka unomphelo. Unomphelo ongangokuthi-ke ngabasebenza abantu. Abantu engibasebenzile abakapheli ukubhalwa yibo bonke laba esebesetshenzwe. Baphumelela ehhee kweqe kuze ngapha asebesetshenzwe. Baphumelela akukaphela ngisagcine ku-60. Uma lokhu sibacabanga eminye, eminye imizi, iphikelele ku-1000 ngempela.


**Interviewer:** Uma uhlola-ke kwenzakalani, uma uhlola kwenzakalani? Yini le ekhulumayo?

**Interviewer:** *Yini le esuke ukhuluma kuwe?*


**Interviewer:** *Kukhuluma umlozi?*

**N1M:** Yebo kimi. Kwesinye isikhathi.

**Interviewer:** *Yini “umlozi”?*


Interviewer: Manje-ke ubona ngani-ke uma usuhlolile ukuthi lonuthi yiwona ozowusebenzisa?

**Interviewer:** *Manje uma usemathanjeni ubani? Umuthi uwubona kanjani-ke manje? Yini ekutshelayo ukuthi, “Thatha lo muthi”?*

**N1M:** *Ja,* kwaba lula. Yafika yonke ngendlela yonke yakhona: kukhona eyokukhipha amanzi amnyama; kebe khona eyokuhlambulula amanzi amnyama abe mhlophe; kube khona eyokubethela; kube khona eyokuthwebula; kakhulu nje. *Especially* ngisebenza kakhulu ngokuthwebula, ngoba, angithi uyabona, abafela eSandlwane: Awukwazi ukuya lapho ababelele khona babebaningi abantu. Ufika nje laphana-ke, uma sekuthiwa-ke eseshilo amathambo ukuthi wafela eSandlwane. Bese besho ukuthi ukhokho wafela eSandlwane, umkhulu kwaba ukuthi nokuthi. Laba bezikhali bese ngithi-ke niyosiza-ke ningifunele isihlahla esiseduze kwasekhaya.


**Interviewer:** *Wawunikwa ubani?*

**N1M:** Yiyo imimoya. Ehhee! Ukuthi thatha umuthi othile nothile futhi ongathi. Uma ngikutshela nje le mithi isobala nje, kodwa uma usuyiqhathanisile iyawenza umsebenzi.

**Interviewer:** *Kusho ukuthi kukhulumakimimoya?*

Interviewer: Uma ulele?


Interviewer: Manje, indima yakho oyidlalayo nje lapha emphakathini-ke?

N1M: La emphakathini-ke?

Interviewer: Kuyo yonke nje, ngoba ukhuluma ngawo wonke umphakathi.


Interviewer: Bukhona yini ubudlelwano obuhona noma ukuxhumana okuhona phakathi kokwelapha ngendabuko, ngale ndlela wena olapha ngayo, nale ndlela? Ngabe kuyahambisana yini, noma kukhona izinto ezithuke ziqondana? Le nto ngathi iyafana? Ubona kanjani?


Interviewer: Manje le mithi yesilungu uyibona ukuthi isebenza ngokufana nalena yesintu? Nalena iyahlobana yini le mithi, noma izinto ezingafani nje?

laphakathi-ke, sesiqhubeka-ke nokunye-ke kwesimo sesiZulu kodwa esesindile.


**Interviewer:** Into engamadliso nina aniyiHLINZi?


**Interviewer:** Ake sibuyele-ke kulo muthi-ke, umqalothi.

**N1M:** Umqalothi-ke uma umuntu ethi, “Ngiyagula yini yini ngihlatshwa yisisu, ngiphethwe yisisu, ngihlatshwa yisisu, ngiphethwe yisisu”. Kufanele ukuthi umbe phansi izinxabo, uwuqothe... uwuqothe. Bese uuthatha uhhafu we-teaspoon, uwufake emanzi, bese ewuphuza. Finish... finish... siphelile isisu nya, nya, nya. Sifana namuphi omunye futhe ingwavuma saka... saka... saka... saka, zifana saka... saka. Nayo, ingwavuma, uyiqothe kanjalo, umthelele enkomishini amanzi angagcwali, bese ukha uhhafu we-teaspoon. Bese ewuphuza engathi uthi ukushisa kancane. Lishona manje after 2 to 3 hours seliphelile.

**Interviewer:** Uma kuyisisu esinjani, Baba?
**N1M:** Yisisu kwesinye isikhathi esihlabayo, ngaphandle-ke kwesikhukhumalayo. Esikhukhumalayo-ke sisibamba la. Kusuke kuyinkulumo-ke lokho akunankinga. Kodwa ngithi uma simhlupha, uhlushwa yisisu... uhlushwa yisisu; uma sibona ukuthi sixaka kakhulu, besesithi, “Hamba uye kwadokotela uyofuna i-Vermox®. Afike ayithole i-Vermox®, ziphume ziqobe... ziqobe-ke. Sibambiseni-ke kanjalo.

**Interviewer:** Kusho ukuthi nawo uyaziqoba izikelemu?


**Interviewer:** Kukuphi nalapho owusebenzisa khona futhi ngaphandle kwesisu?

**N1M:** Yilo, umqalothe?

**Interviewer:** Ehhee!

**N1M:** Awusebenzi kwenye indawo. Usebenza kakhulu uma umuntu ephethwe yisisu nje... nje. Uyababa... uyababa. Ungena ngaphakathi ubulale. Emlonyeni ngishe uwpuphuza, ungene ngaphakathi ulwe nayonke into embi, nayonke into embi. Ufana na... [Shouting to the old lady outside] [Wegogo! Awunginkeze lo muthi omhlophe olaphana wesisu! Uyawubona?] Uyababa, kodwa lo wesilungu awubabi. Usenza siphele sithi nje nya. Sithambe kuphume nje yonke into, akhululeke umuntu azizwe esephila.

**Interviewer:** Uma ngabe besiqinile siluma, hhayilesi esihudisanayo?

**Interviewer:** Awungeni? Awusebenzisi kwezinye izindawo lo muthi? Mhlambe ezintelezini noma kuphi nakuphi? Awungeni ndawo?

**N1M:** Nca, nca, awungeni ndawo. Ungena esiswini kaphela. Yebo, ungena esiswini kaphela. Nanku... o letha-ke... [gesturing to Granny outside] nankuke number one... nika lo. Number one, if stomach got pain, number one, number one [pointing at the Western medication brought to him by Granny].

**Interviewer:** Usebenza njenga lo?


**Interviewer:** Manje, uma uyowuvuna, uvunwa ngankathini lo muthi?

**N1M:** Yilo, umqalothi? No, awuvunwa. Uzinduku nje. Umila nje, njengezinduku nje. Uvela ufike wena umbe izimande phansi.

**Interviewer:** Izimande?
**N1M:** Yebo. Bese uyiqotha icoliseke... icoliseke, usuzoyisebenzisa uma uphethwe yisisu

**Interviewer:** *Yimpande kuphela esebenzwayo?*

**N1M:** Impande kuphela.

**Interviewer:** *Esebenzayo?*


**Interviewer:** *Izimpawu zawo? Ubona ngani, ukuthi mhlambe unamacembe anjani, noma into engathi injani nje?*

**N1M:** Uyazi eyi angazi ukuthi kuzokwenzakala kanjani, kodwa ngoba useduze kungafunke ufike sengikukhelele amaqabunga ngize nawo wonke uwubone.

**Interviewer:** *Noma ungawuchaza?*

kanje, ungathola ukuthi kunezinto azithile ezisithaka kanje. Yebo, akubalekelani kakhulu.


Kodwa-ke aze singathanda ukuthi mhlambe njengoba sisebenza nje kanje: Sifuna thina udumo lokuthi umuntu eze ezokwelashwa enziwe yonke into. Singahambe simemezela njengalaba abamemezela emaThekwini yonke le mithi abayimemezayo.

Ngoba manje, imbiza ayifuni ukuthi uyenze ihlale emab hodleleni. Ichaywe phandle, ishaywa yilanga, iba njani... njani iyofika komunye umuntu. Abantu
bamanje abasakudli ukudla lokhuya. Kwakudliwa izinkobe, kudliwa izindlubu konke lokudla okuqinileyo obhatata obanibani. Bese ufaka lembiza lena isibe strong kwaze kweqa, afe umuntu. Fika nje umuntu umenzele same time manje asinde umuntu.


**Interviewer:** *Yilokho ke ngomqalothi*

**N1M:** Yebo okusemqoka, Baba. Owesisisu owesisu. Ya, ngizokumbela. Yabona nje ngihlushwa zinkomo. Bekufanele kulezi nsuku kengehle ngiyofuna initelezi nayo yonke into ngibuye nawo. Ulukhuni ufana nethambo lenkomo ubulukhuni bawo; awukhuli ubemkhulu; induku yawo ivama ukuba ngangalezi zinto lezi umqalothi, umqalothi [gesturing towards his own fighting sticks].

**Interviewer:** *Cha, siyabonga ke. Sibonga isikhathi osiphe sona.*

**N1M:** Asiyishayele amathambo indoda.

**Interviewer:** *Sibonga kakhulu-ke. Ulwazi nje engiyolushicilela phansi.* Angeke uholhe ukuthi ulwazi ngawe seluhambe luneke usuhambwe uvela ezindaweni esingavumelananga ngazo. Incwadi nje engizoyibhala kuphela.
KWAZULU-NATAL – WESTERN INTERIOR: Weenen

SANGOMA 2 [S2W]: 46


S2W: Yebo, yonke into iyathwaselwa. Kusho ukuthi nina nikubiza ngemfundo.


Interviewer: Awungeni ekuchatheni?
**S2W:** Cha, awungeni ekuchatheni. Ngiwazela ezinsizini zokukhotha nezokuncinda.

**Interviewer:** *Ukukhotha noma ukuncinda? Uma ngabe unani?*

**S2W:** Mhlambe uma unedliso. Mhlambe unanesifo okuthiwa yilumbo.

**Interviewer:** *Ilumbo? O!*

**S2W:** Kukhona lilumbo. Uma kuthiwa unelumbo, umqalothi uyangena ezinsizini zethu zamalumbo. Uyancinda ukhothe.

**Interviewer:** *Manje ake sibuyele lapha. Wona uma uphuma nje uya endle, uwubona kanjani ukuthi yiwo-ke lo. Unjani wona?*

**S2W:** Uwubona ngecuba.

**Interviewer:** *Icuba? Kambe yini icuba?*


**Interviewer:** *Anjani-ke awomqalothi?*

**S2W:** Awomqalothi anjani? Aluhlaza, bese ezoba u-*round*, bese kungathi kucijile ngapha.

**Interviewer:** *Manje ubona kanjani ukuthi lesi sihlahla somqalothi sesikulungele ukuthi ungawuthatha uwenze umuthi, noma lesi asikawulungeli?*

**S2W:** Sibona lapha uma siwuxebula. Uma siwuxebula sinomehluko wesihlahla esincane nesesi sidala, ehhee.
Interviewer:  *Yini oyibonayo uma usixebula ekugunyazayo ukuthi kahle, ukuthi cha lona, yiwona osebenzayo?*


Interviewer: *Yebo. Nisebenzisa wona lawo-ke angesilona ugginsi?*

S2W: Sisebenzisa lawa aselugginsi.

Interviewer: *Nisebenzisa lawa alugginsi? O!*


S2W: Kuba sekuqaleni kwawo. Ekuqaleni konyaka kusho ukuthi bese siwusebenzisa ngenyanga, ukuthi inyanga injani. Ikhanya kanjani. Ehhee!

Interviewer: *Yebo.Awungenabele, ngicela ungenabele lapho, Makhosi. Ukuthi uma uthi ubona ngenyanga ukuthi....*

S2W: Kusho ukuthi uma ngithi sibona ngenyanga, angithi inyanga iyane iphume.

Interviewer: *Yebo.*

S2W: Ngesikhathi uma iphuma ngingathi. Angivele ngichaze ukuthi siye siwuxebule ukugcwala kwayo inyanga.

Interviewer: *Uma iphuma ebusuku? O! Inyang iymphela nomaxini le!!*

S2W: Le ekhanyisa unyezi angisho kanjalo. Yebo.
Interviewer: Kushuthi uma ivela iphelele lapo, isho ukuthi sesingavnwa leso sihlahla?

S2W: Yebo.

Interviewer: Ngilalele!

S2W: Kukhona okunye okusadinga? Mhlambe, engingakakukhulumi okuqondene nayo?


Interviewer: Ukuthi yini nisuke nikwenzelani lokhu ukuthi ithande ukuba mnyama yona?


Interviewer: Umhlophe?

S2W: Uma uswuqothile nje, uba umuthi omhlophe. Kanti uwumuthi u-strong.
Interviewer: *U-strong? Uyababa? Izinxabo zakhona anizisebenzisi?*

S2W: Izinxabo... Izinxabo? Mhlambe ukubiza akufani.

Interviewer: *Izimpande?*


Interviewer: *Lona omunye ongezukungena lapho okade usho khona awunankinga uma usuqothiwe nje kuphela?*

S2W: Uma usuqothiwe nje kuphela.

Interviewer: *Nisuke niwuqothelani umuthi lo?*


Interviewer: *Ngaphandle-ke kwalo muthi, mhlambe ungasithi fahla ukuthi ungena kanjani kuleli zinga okulona? Kulesi sikhundla okusona? Kwenzakalani ukuze ube, kusuka kanjani?*

ngokunjalo name akufanani. Kodwa-ke, siyesifike sekuthiwa siyizangoma-ke, igama elilodwa.

**Interviewer:** *Wena nje, uma usithi fahla, kwenzakalani kuwe ukuze uze nawe ungene?*


**Interviewer:** *Obani?*


**Interviewer:** *Uma ufika khona, basebenzani?*

**S2W:** Uma ngifika khona, ngafika nje ngawela emnyango, endaweni yasesigodlweni. Ebesefika uma wami, kusho ukuthi ngesikhathi mina ngiwa uma wabe esenza akwaziyo ukuthi kuzongivusa kodwa hhayi okunomuthi. Wabe esethatha induku nje eyishoba, induku ekanje. Wabe esengithintathinta ngayo, bese ngivuka-ke ngangena ngaphakathi, wabe eseshisa impepho ebika ukuthi nangu umntwana engena uzothwasa.

**Interviewer:** *Wase uyethwasa-ke?*

**S2W:** Ngase ngiyethwasa.

**Interviewer:** *Lapha ekwethwaseni kufundwani? Kwenziwani ekwethwaseni?*

Interviewer: Bese usuyaphothula ubuyele ekhaya?

S2W: Bese usuyaphothula-ke kubuye kukhulumeni futhi idlozi lakho. Ngoba yibona uma uthwasa ugcoba adaka, angithi?

Interviewer: Yebo.


Interviewer: Manje uma ususebenza-ke emphakathini iyiphike indima oyidlalayo la emphakathini?
S2W: Uma ngabe ususebenza kakhulu? Ukuhlola abantu.

Interviewer: *Uma umuntu efika, yini ekubonisayo ukuthi lo muntu uphethwe ukuthi?*


Interviewer: *Mhlambe kuhulumu bona abadala ngemuva?*


Interviewer: *Manje bese uwubona kanjani ukuthi nawu umuthi ozowukhipha?*

S2W: Utshelwa yibona ukuthi lo muntu uma ephethwe yilokhu, mhlambe umuntu uyagula, bayasho ukuthi lo muntu njengoba ephethwe likhandla; uwumuntu (leli khanda lisuke kanjani?) ukhahleleziwe. Ehhee! Udinga-ke ukuthi athole izinto ezikanje.


Interviewer: *Yini “ilumbo”?*

S2W: Ilumbo yisifo sabasha esithathelana ngocansi, eh! Kanti-ke kakhona nabathola phansi, njengomeqe. Kusho ukuthi bayane babafakele izintambo
mabeqa lapho sekuyilumbo-ke. Kanti isikhathi nje esiningi yisifo sabantu abasha.

Interviewer: Manje ngakubuka kwakho ukulapha kwendabuko nokulapha kwesilungu uyakubona yini ukuxhumana lapha, noma ukusebenza ngendlela ecishe ifane. Noma ubudlelwane obukhona uyabubona yini? Noma, ngokubona kwakho, ubona kanjani?


Interviewer: Ngabe le mithi nayo icishe isebenze ngokufana nale ngokwakho ukubheka? Ayihluke kakhulu ukusebenza kwayo, noma ubona kanjani?


Interviewer: Cha, sibonge kakhulu, bekuyilokho, emakhosini.
NYANGA 2 [N2W]: acists

Interviewer: *Siqale-ke sibingelele futhi, Baba.*

N2W: Yebo.

Interviewer: *Kusho ukuthi ngihamba ngocwaningo lomuthi wesiZulu, umqalothi. Kulolu cwaningo kusho ukuthi ngifuna ukuthola ubudlelwano phakathi kwendlela osetshenziswa ngayo ngesintu, nangendlela isilungu osetshenziswa ngayo, ukubona nje ukuthi bukhona yini ubuhlobo nomu ukusebenza ngokufana yini na.*

N2W: Nale ndlela eniyaziyo?


ngingakuxhumanisa nomqalothi. La ngiwazi khona ngiwazi esiwini nje, Mtanami, kodwa ngiyawazi wona ukuthi ezinyangeni zonke zazi okuningi ngawo. Kodwa mina ngiwazi la esiwini, uma uphethwe yisisu.

**Interviewer:** Esijnani isisu? Esikukhiphayo?

**N2W:** Esikujuqayo. Cha-ke! Esikujuqayo nje, esikunqamulayo nje. Uyabona?

**Interviewer:** Yebo.

**N2W:** Bese-ke sengithatha wona-ke nomathithibala nomgcalaci, ngishaye sibaleke sihambe, ehhee!

**Interviewer:** Uwusebenzisa kanjani?

**N2W:** Ngiyawugaya nje, ngiwugaye ngithi ukuwupheka-ke ngiwubilise nje. Bese ngiyazama ukuthi lapho sengiyawusefa-ke kahle umuthi sewuyawuphuza-ke.

**Interviewer:** Ubila isikhathi esingakanani?

**N2W:** Hhayi, weqiwa amanzi nje kanye bese-ke sengimphuzisa-ke. Uma ngimphuzisa lapho uzozwa ngaye esehlale isikhashana ukuthi hhayi siyehla isisu.

**Interviewer:** Uphuza into engakanani?

**N2W:** Uphuza ngingathi nje uhhafu wenkomishi. Uhhafu wenkomishi imagi. Uyayibona?

**Interviewer:** Yebo

**N2W:** Uhhafu... uwenze uhhafu, hhayi ikota uhhafu, bese uthi gambaqa.

**Interviewer:** Bese ushaya isisu?
**N2W:** Bese ushaya isisu-ke. Ngiwazi kanjalo-ke umqalothi.

**Interviewer:** *Kangaki mhlambe ngosuku?*


**Interviewer:** *Yini le oyisebenzisayo? Zimpande noma zingxabo?*

**N2W:** Zimpande. Izingxabo zomqalothi, nala kumathithibala amakhasi, la emgcalanci futhi zingxabo, ehhee!

**Interviewer:** *Manje uma singaphuma nje siye endle, uwubona ngani ukuthi lo muthi lo umqalothi? Ubonakala ngani? Umi kanjani?*


**Interviewer:** *Ungathi ami kanjani nje amaqabunga awo?*

**N2W:** Ngingathini nje? Amakhasane nje. Angazi ukuthi ngingawabiza ngiwanise nani oyaziyo wena.

**Interviewer:** *Mhlambe angocija amakhasi awo nama awu-round? Noma ami kanjani?*

**N2W:** *Ja! Athanda ukuba awu-round-ana awacijile kahle. Athanda ukuba awu-round-ana nje. Amanye futhi athanda ongathi ayacijacija nje kodwa engacijile kahle.*

**Interviewer:** *Isihlahla sakhona siba yisihlahla esikhulu? Siba singakanani?*
N2W: Siba sikhulu... Siba sikhulu impela, ehhee. Nobuhlaza bawo awuluhlaza kanje. Uba luhlaza ngalokhu okungathi kumpofana.

Interviewer: Kumpofana? Yebo. Okusho ukuthi kusebenza izingxabo ungawuvuna noma wona, noma uvunwa nini?


Interviewer: Yebo. Wena-ke ake sithi, njengoba uyinyanga nje, ubona ngani-ke ukuthi lo muntu kufanele anikwe umqalothi. Noma kuba uyena oshoyo ukuthi cha uphethwe yisifo, noma kuyane kwenzeka yini ubone nje?

Interviewer: Yebo, sesiphetha-ke nje, Baba, ukukhombisa ukuthi inkulumo iphuma enyangeni. Sicela usiphe nje isithombe esincane ukuthi kwenzeke. Ufinyelela kanjani kulelizinga lokuba yinyanga kwenzakalani ukuze ube yinyanga?


Interviewer: Ubani lo okhulumayo nawe ephusheni, ekutshela le nto kuthiwa? Ubani?

N2W: Angimboni ukuthi ubani.

Interviewer: Yizwi lomuntu wesilisa?


**Interviewer:** Wafika khona, kwase kuba yisikhathi esingakanani ukuthwasa?


**Interviewer:** Manje njengoba usubuyile-ke emphakathini, yini indima yakho oyidlalayo la emphakathini?

**Interviewer:** *Manje-ke,* ingabe kakhona yini ukuxhumana phakathi kokulapha kwendabuko nesilungu? Noma ukufana ukuthi hhayi lezi zinto ziyahambisa, nomalokhu akuhambisani? Ubona kanjani?

**N2W:** Cha, Mntanami. Ngingaphendula ngithi lapho sixhumene nodokotela, kodwa ukuxhumana kwethu yikho nje kokuthi phela-ke sixhumene ngokomlomo ukuthi siyavumelana ukuthi aselaphe ngokuzwana nangokufana. Ehhee! Ngokwemithi, cha, akukabikho la sixhumana khona.

**Interviewer:** *Ayisebenzi ngokufana?*


**Interviewer:** *Cha, Mboma, asibonge bekuyilokho nje kuphela isikhathi sakho osiphe sona.*

**N2W:** Hhayi, nami ngiyabonga, kubonga mina. Ngoba ngiyathanda kakhulu ukuxhumana namadoda anje, aphilisayo. Ukuba ngiyazenzela nje ngabe
ungicobelelula elinye ikhambi lokusale ngiphilise abafowethu labeniqhubeka nabo ngibaphilisa. Layikhaya nje uma sekuthiwa umuntu unenkinga, hhayi ulethwa la afike aphile futhi.
KWAZULU-NATAL – SOUTHERN INTERIOR: Harding

SANGOMA 3 [S3H]: ↑35

Interviewer: Siyabingelela-ke emakhosini.

S3H: Emakhosini.


Ukuze ukubheke enye into esiyisebenza kakhulu: sibuye sihlole ukuthi uma elunywa isisu, siyisisu esimluma kanjani, okanye, mhlambe, sikhuluma
sijikeleze izinkaba; mhlambe sigcwala umoya, bese siyahlaban sonke.
Uyabona? Ngikwazi ukuthi ngishise impepho, ngibuze emakhosini, ukuthi ihambi anginalo, ngicele abadala banginike ihambi. Ngoba kuyenzeka
ukuthi kwesinye isikhathi unganika umuthi kuvele kuthiwa, “thatha ibomvu”. [Uyalibona? Leli eligcothwayo amathwasa?] Kuthiwe jikijela izihlungu
phakathi. Izihlungu zisuke zinemithi edidiyelwe eminingi ugwaaqamise leyonto. Uyishise ngemephepo bese utshela abadala ukuthi, “Nanku umuthi
eninginika wona”. Avele awuphuze, kuvele kube ukusinda kwakhe same time.

Ekusebenzeni ngamakhambi kuba khona amandla edlozi eliwafakayo lona
uqobo. Umuntu awukwazi ukumelapha ngomuthi owodwa, ngoba kwesinye
isikhathi, uthola ukuthi isifo sakhe asifuni ukuthi umlaphe ngomuthi. Sifuna
ukuthi umkhulekele ujule unxuse kuNkulunkulu, aphume esindile ngaso leso sikathathi. Kusiko ukuthi ukumkhulekela kwakho ukubeka isandla lapho
ephethwe khona, yiloyo nto ukuthatha ukufa athi, “Angisakuzwa ukuthi”.

Kufuna ukuthi ucele ebantwini abadala. Sikholelwa ekutheni uma umuntu
engena egula akazelanga kuphela ukuthi uzwile, kodwa nethongo limlethile
ukuthi, “Nangu umuntu okufanele umsize”. Kuyafunakala ukuthi futhi, ubuze
ukuthi, “Lo muntu enimlethile ngimusize kanjani?”, nakuba wazi, kodwa ufune
kulona, ukuze uhaye ngqo exactly kwisifo somuntu.

Interviewer: Lesi-ke somqalothi isisu sivame ukuba esinjani sona?

S3H: Isisu somqalothi kuyaba isisu somuntu esesimluma kube sengathi
kudonseka isimo senkaba yakhe. Uyabona? Athi-ke uma elunywa kube
ngathi uyagubha, kusho ukuthi kuhona ukuphazamiseka kwamathumbu
lapho kuyena. Umqalothi wona uzofika lapha bese ubamba izinhlungu.
Uyabona? Kusiko ukuthi ulwisana nale nto okuyiyona le ejika. Khona kuyinto
esalumbana lesiZulu kwabantu. Ehhee, kuyilumbwana. Uyabona? Yingakho
kufuneka ukushaye ngomuthi, ngoba izisu zabantu azifani, azibalumi
ngendlela eyodwa efanayo. Omunye siyamluma simkhiphe. Omunye
simlume singamkhiphi. Uma simkhipha uyazi ukuthi kufanele ngithathe usibanibani ngisivale.

**Interviewer:** *Lesi somqaluthi asiakhphani? Sinjani sona?*


**Interviewer:** *Uphinde ungene nakweziphi izindawo futhi umqalothi?*


**Interviewer:** *Nisuke niwufakelani wona kuzifozonke ukuthi wenzeni?*

**S3H:** Lapho, umqalothi kuzifozonke, uzofika wona udlale leyo ngxene yezihlungu ezisuke sigulisa umuntu sifake nezibiba kanjalo. Kusho ukuthi laphana kuzifo mhlambe kuhlangane imithi ewu-30. Kuhlangane izimpande eziningi ezikwazi ukuthi zifike zisabalale emzimbeni wakho. Leyo iphume
ibheke lena, nenye iphume ibheke lena, kuze kunqobeke isifo esisuke sikuphethe. Ngoba uzifozonke ukhona umuntu ophathwa ikhanda, izibhobo, iqolo, amahlaba, nophathwa isinqe, isinye, nophathwa intoni ntoni. Kufuneka, siyididiyele le mithi, kwenzeke ukuthi kube nesikali sokuthi umuntu akayiphuze kangaka, osegula kangaka. OK. Kufuneka ngimnike kanje, ahlezi futhi ekuvakashela umbuze ukuthi uzwa kunjani manje, aze agcine umuntu eselungile.

Interviewer: Ezimbizeni zona zokuchatha-ke?


Interviewer: Ngokobungoma ubona ngani ukuthi umuntu, “cha, lo, udinga umqalothi”?


**Interviewer:** *Manje ngesikhathi usempephweni kwenzakalani? Ubani lo okhulumayo, olokhe umbize ngedlozi?*


Kusho ukuthi, njengoba sisebenza ngabantu abadala, kukhona isithombe esikwazi ukusibona, esingakwazi ukubonwa omunye umuntu, esiymfihlo yethongo ukuthi likwa… ukuthi likuvezele into eyimfihlo, ukuthi kufanele ukuthi wenze njani.


Kubantu abadala ngibabize bonke laba engibabizayo. Ebese evela umuntu ekhuluma ethi, uphethwe ukuthi nokuthi, nokuthi, nokuthi; ethi kwenzeka kanje kanje kanje; le nto iwukuthi nokuthi nokuthi; thatha umuthi othile ulaphe into ethile.
Interviewer: Usakhuluma ngendaba yakho ukuthatha umuthi, kambe bese sidulile yini endaweni yokuthi wona uwubona ngani phandle? Endle uvunwa nini?

S3H: Uyabona umuthi ngaphandle? Siyaya emahlathini.

Interviewer: Asikhulume nje ngawo umqalothi.


Interviewer: Yiziphi izingxenye enizisebenzisayo isikhathi esiningi? Zawo umqalothi?

S3H: Kusho ukuthi izingxenye yezihlala esizisebenzisayo uma sixebula ezisebenzayo?

Interviewer: Kuwo umqalothi nisebenzisa izingxabo/ izimpande nom a igxolo?

S3H: Kusebenzisa amagxolo kufhela lawa, amagxolo kufhela esiwasebenzisayo.

Interviewer: Uyunwa nini-ke wona isikhathi sonyaka? Noma ebusuku, noma emini, noma uma kunjani?

sesivushiwe”. Isihlahla uyasibona uma sesivushiwe sesisdala sesisabalalile. Uthole nezimpande zaso sezijulile; kusho ukuthi ihambile impande yafika yakhela la iyakhona. Akusona isihlahla esisesincane esingakenzi lutho, esingakaqhakazi, esingakabi nalutho. Ufuna uthole umuthi osunesiqu othola ukuthi umuthi uyawuxebula uthole ukuthi unohlonze. Yebo kusho ukuthi usuvushiwe usumdala lowo muthi.

**Interviewer:** Ungibalele isisu, wangibalela izimbiza zokuchatha n eziphungo. Ingabe futhi ikhona yini indima mhlambe la enibuye niwusebenzise khona umqalothi futhi?

**S3H:** Yikho kuphela engikwaziyo ngomqalothi.

**NYANGA 3 [N3H]:** 42

**Interviewer:** Siyabingelela-ke, Baba.

**N3H:** Ewe, Mfowethu.


**N3H:** Yebo.

**Interviewer:** Kusho ukuthi-ke uma ngabe uthi uyasamukela ukuthi singaqhubeka usihlephulele ulwazi singathokoza. Singaqhubeka?
**N3H:** Ngiyanamukela ngoba inhlo yethu la, njengabantu abaphatha imithi ngokwendabuko, ukuthi sisthetha abantu abasuke bephethwe yizifo. Sicabanga ukuthi kufanele sihlanganyele, thina esiphatha amakambi ngokwesintu, nani enipihatha amakhabi ngokwaseNtshonalanga.

**Interviewer:** Yebo. Singakangeni nje kulo muthi, ungake usithi fahla ngokuthi waba kanjani yinyanga wena? Usiphe nje isithombe nanokuthi-ke indima yakho emphakathini iyiphi? Wenzani uma usubuyile? Waba kanjani yinyanga?


lokuphatha imithi. Kusho ukuthi ukuba yinyanga kwami kwangena ngaleyo ndlela.

**Interviewer:** *Manje-ke, njengoba usuyinyanga nje, emphakathini njengoba wakhile nje, iyiphi indima oyidlalayo manje?*


**Interviewer:** *Manje uma singabuyela kulo muthi, umqalothi: Awusiphe isithombe ukuthi uwubona kanjani, noma ukuthi otholakalaphi. Uma ungaqala ngokuthi utholakalaphi.*

Umqalothi-ke uyakwazi ukubamba lelo qhaza ukuthi isifo soshukela ukwazi ukuthi ufike usibambe.

Ngendlela-ke mina engafunda ngayo ukuthi umqalothe uyakwazi ukuthi ulaphe ushukela, ungawuxubanga namuthi nje, uwodwa. Uwuhlanganise uwufake emanzini antukuntuku awuphuze umuntu ekuseni nasekini nantambama. Ushukela uyebla, uhole ukuthi umuntu, uma eyosheka, uwuthole usuwehlile.


**Interviewer:** Yini “umeqo”?  


**Interviewer:** Niphinde niwusebenzise kuphi futhi umqalothi?

**N3H:** Umqalothe-ke emithini-ke nje ewuzifozonke uyangena. Njengomuthi umuntu uma ukhuluma ngozifozonke usuke ukhuluma ngesimo sokuthi…. (umuntu ake ngisho njengabantu njengoba) sekukhona lesisifo esesikhona, esibizwa ngegculazi. Abanye bayibiza nge-“HIV”. Sithatha zonke izifo ngenxa yokuthi amasosha omzimba asuke engasasebenzi. Lokho-ke kwenza ukuthi
lo muthi ukwazi ukuthi ufike wona ezinye izifo uzilimaze ngale ndlela yawo, ukuthi wona uwumuthi ohlakazayo. Ngisho ukuthi kuba ungena kanjalo kwisimo sozifozonke, kodwa sewuxuba manje neminye imithi, senzele ukuthi awukwazi ukuthi ube sesimweni sokuthi welaphe welekelele.

Interviewer: *Singathini uma sithi “uyahlakaza”? Ufike ubulale amagciwane?*

N3H: Ufike ubulale amagciwane esimweni sokuhlakaza.

Interviewer: *Uphinde ungene kuphi futhi?*

N3H: Ngokwendlela engifunde ngayo, yilezo zigaba ezingu-*four* engizaziyo, *ja!*


Interviewer: *Yini “ikhubalo”?*

N3H: “Ikhubalo” la ukuthi umuthi, isihlahla somuthi usixhoze.

Interviewer: *O! Usho amagxolo?*

N3H: Ngisho amagxolo akhona lawo.
Interviewer: Osuke uwathola, anjani uma uwabuka amagxolo?

N3H: Uma uwabuka ungawabiza ngokuthi, mhlawumbi… ah… kulo muthi lo [reaching down to pick up a piece of bark on the floor to his far left], ungajonga lo, ubekile wona-ke, ungawubiza njengomuthi ongathi umdaka.

Interviewer: Umdaka umbala wawo?


Interviewer: Ubona ngani-ke ukuthi lo mhlambe ungakwazi ukuwusebenzisa? “Leli gxolo yilona eli-right, elinomsoco okhona”. Ubona ngani? Lisetshenziswa uma selinjani?

N3H: Leli gxolo noma ngabe kuthiwa lixetshulwe liselincane kodwa isiqiniseko uma kuyiwona umqalothi uzowenza umsebenzi wawo. Ngoba phela, njengoba singabantu sakhe ezindaweni ezahlukene, uyuthole ukuthi izindawo azifani uma uzothi uzowulanda endaweni ethize uma kuyiwona. Enye into uma ufuna ukuwuzwa uwumuthi obabayo. Othi uma uwubeka nje olwimini uthole ukuthi uyababa.

Interviewer: Uyababa?

N3H: Ja.

Interviewer: Uvunwa ngesikhathi sini wona?

Interviewer: Manje umuntu uma efika ke kuwe, ubona ngani ukuthi lo muntu lo udinga umqalothi?


Interviewer: Manje, uma usumnika-ke leli gxolo, ulithole leli gxolo lomqalothi, ulenze njani ukuze umuntu alisebenzise. Lisetshenziswa kanjani?

Interviewer: Ngesikhathi usuwufake 30 minutes emanzini usuke wenzela ukuthi kwenzakaleni?


Interviewer: Izikhathi zosuku-ke?


Interviewer: Kubonakala ngani-ke ukuthi le-BP yakhe iphezulu?

N3H: Ukuthi iphezulu umuntu. Siye, uma efike enayo, siyane siqikele ukuthi ahambe ayoyisheka ukuthi i-BP yakhe imi kanjani. Ja, asiboni nje ngokukala ngokwenqondo, njengamanzi ophuthu!


N3H: Nami ngizothi ngiyabonga, ngoba ngasosonke isikhathi, njengabantu okufanele basize umphakathi, kufanele ngaso sonke isikhathi silekelela la okufanele sibambe khona iqhaza, yebo.
KWAZULU-NATAL – COASTAL URBAN: Durban

SANGOMA 4 [S4D]: ↑ 35


S4D: Ningaqhubeka phela, ngalolo lwazi lwami oluncane.


Interviewer: Uma uya ehlathini uwubona ngani wona?

S4D: Usuke usazi isihlahla sakhona.

Interviewer: Uma ungasazi isihlahla sawo ungasifanisa nani? Simi kanjani?

S4D: Isihlahla nje esikhulu esiphathhekile.

Interviewer: Amacembe aso mhlambe anjani?

Interviewer: \textit{Uyababa? Amagxolo akhona anjani?}

S4D: Angathi a-\textit{grey}.

Interviewer: \textit{Manje-ke, woma uvunwa ngasikhathisini woma?}

S4D: Kukahle ukwuthola ehlobo uma lisana usaxebuleka. Ebusika awube usaxebuleka. Yonke futhi imithi ayixebuleki ebusika.

Interviewer: \textit{Wenzani? Uma usuwuthatha uwuthatha, uwusebenzise kanjani?}

S4D: Isisu. Usetshenziswa esisiswini, uma uhlushwa yisisu.

Interviewer: \textit{Ngaphambi kokuthi uwusebenzise uwenzani? Uyawuvuna bese uwenzani ngawo?}


Interviewer: \textit{Emagobongweni? Yini “amagobongo”?}


Interviewer: \textit{Ufaka impande yakhona?}

S4D: Yebo. Kusebenza impande yakhona.

Interviewer: \textit{Umuntu umphuzisa into engakanani yawo?}

S4D: Umphuzisa into engakanani? Uma usebenzise nje uhhafu \textit{wethispuni} ephalishini ngemagi.
Interviewer: *Ngemagi? O. Kangaki ngosuku, mhlambe?*


Interviewer: *Kusuke kuyisisu esinjani, lesi osichazayo, ngoba izisu azifani?*

S4D: Esimluma enkabeni. Esimudonsayo.

Interviewer: *Sindonsa? Akusiso esimkhiphayo?*

S4D: Esimhudisayo usebenzisa ungwavuma.

Interviewer: *Kodwa lesi, esimlumayo, usebenzise umqalothi?*

S4D: Ehhee.

Interviewer: *Uphinde ungene kuphi, uthe amagobongo?*

S4D: Ehhee, nasezimbizeni futhi uyangena.

Interviewer: *Izimbiza? Zani izimbiza?*

S4D: Izimbiza zozifozonke.

Interviewer: *Uzifozonke?*

S4D: Yebo.

Interviewer: *La osuke uwufaka ukuthi wenze khona?*

S4D: Ulwa nomeqo.

Interviewer: *Umeqo? Ehhee. Nani enye futhi?*

S4D: Kwenye la ungena khona?

Interviewer: *Yebo.*
**S4D:** Uyangena nasezinyamazaneni ezishunqiswayo for omoya ababi. Uma kukhona isilwane uyenziwa, ushunqiswe uhlanganiswe nomule.

**Interviewer:** *Yisilwane sini lesi okhulumu ngaso?*

**S4D:** Yilaba otokoloshe, ehhee, osomjili.

**Interviewer:** *Uphinde usebenze kuphi futhi?*

**S4D:** Uyangena nasezinsizini. Kulezi zinsizi ezenziwayo. Izinsizi lezi oyane uzigaye zibe mnyama njenga *(lezile)* [Pointing at jet black suppositories in a clear plastic bottle overhead.].

**Interviewer:** *Izinsizi zani lezo?*

**S4D:** Izinsizi zomeqo namalumbo.

**Interviewer:** *Zamalumbo? Umeqo? Ebese ufaka phakathi?*

**S4D:** Ebese ufaka phakathi ezinsizini zakhona bese ufaka nokunye.

**Interviewer:** *Nakuphi futhi?*

**S4D:** Yikhona lokho engikwaziyo nje.

**Interviewer:** *Yilokho okwaziyo? Uma ungasithi fahla ngokuthi umuntu mhlambe wena umuntu uba kanjani yisangoma nomu kulo msebenzi okuwona.*

**S4D:** Kubanjani?

**Interviewer:** *Kwenzakalani kumuntu ukuze mhlambe abe kulo msebenzi okuwona, ukuba abe yisangoma?*

Interviewer: Bese wenze njani?

S4D: Bese uyyethwasa. Uhambe komunye umuzi oyothwasa. Mina-ke, ngamphupha umama engathwasa kuye.

Interviewer: Kwenzakalani?

S4D: Ngamphupha. Ngamphupha, ngigida naye.

Interviewer: Ugida naye?


Interviewer: Laphakhathi uyokwethwasa, ufike wenzeni laphana?

S4D: Ufike nje, udlle amagobongo. Ufundiswe ukubhula, uphinde ufundiswe ukulapha ukuthi, uma umuntu efikile enenkinga nje, kufanele ukuthi wenze njani.

Interviewer: Bese kuthatha isikhathi esingakanani?

S4D: Kuya-depend-a. Kuya-depend-a kuwe, edlozini lakho. Okanye yi-6 months; abanye unyaka; abanye iminyaka.

Interviewer: Wena kwakuthatha isikhathi esingakanani?

S4D: Kwaba unyaka.

Interviewer: Kwaba unyaka? Wase ubuyela ekhaya?
**S4D:** Ngase ngibuya ekhaya.

**Interviewer:** Uma usubuya ekhaya wase udlala yiphi indima-ke emphakathini?

**S4D:** O, emphakathini? Emphakathini uyaba lapha phela abantu bafika nezinkinga zabo ubhule.

**Interviewer:** Ngokubona kwakho, kukhona ukuxhumana phakathi kwendlela isiZulu esisebenza ngayo nesilungu ngokwelapha? Kukhona yini ukuxhumana noma ubudlelwano ubukhona?

**S4D:** Angeke ngazi.

**Interviewer:** Noma ayikho yini imithi esebenza ngokufana ngapha, obona ukuthi iyasebenza njenga le yesilungu le etholakala kodokotela?

**S4D:** Angeke ngazi.

**Interviewer:** Cha, siyabonga-ke. siluthokozele ulwazi osiphe lona, Mamawethu. Asazi noma kukhona yini okunye mhlambe?

**S4D:** Okunjengani?

**Interviewer:** Oukhohliwe nabo.

**S4D:** Okomqalothi?

**Interviewer:** Yebo.

**S4D:** Ungena nje lapho nje. Uyangena ezimbizeni; uyangena ezihlungwini, kulezi hlungu zomeqo; uyangena ezinyamazaneni zonke; kumuthi wesisu uyangena, uma siluma sikukhipha kancane. Kodwa awusibambi usuke ugula singakukhiphi. Sisebenzisa okunye.

**Interviewer:** Ngiyabonga.
S4D: Ngiyazibongela nami.

NYANGA 4 [N4D]: 63

Interviewer:  Siyabingelela-ke.

N4D: Ya, sanibona. Niyaphila?


N4D: Awu, ngiyabona.


N4D: Hhayi, awuqhubeke.

Interviewer:  Kusho ukuthi, Baba [surname] engicela ukukwazi okokuqala ukuthi uwubona ngani wona uma singaya ehlathini siyowuvuna?


Umqalothe-ke ungena ezinkambeni ezimhlophe ukwazi ukwelapha umuntu noma ngabe kukhona isisu esimphethe. Kodwa uma edla lezi nkamba lezi siyaphela isisu esimkhiphayo. Umsebenzi womqalothe... uwomqalothe uwumuthi ovula izindlela ebantwini.

Interviewer: Uma uthi, “uvula izindlela ebantwini”, uchaza ukuthini, Baba?


Interviewer: Uphinde ungene kuphi? Niwusebenzisa kuphi futhi?

N4D: Ungene embhenyisweni wekhanda. Ikhandla eligxabha la [indicating the top of his head] ekhanda lishaye umuntu afike amehlo esebomvu engaboni. Ukwazi-ke ukuthi umqalothe uma ewubhemile uhlanganiswe nemithi yakhona eyizinkamba futhi, isiyajikwa manje yenziwe umbhemiso, ukwazi ukushaya umuntu, athole ukweluleka abe uyena.

Interviewer: Uma ephethwe yikhanda?

N4D: Yebo.

Interviewer: Nakuphi futhi la eniphinde niwusebenzise khona?

**Interviewer:** Angazi noma uBaba ebengangenabela yini ukuze ngisizakale? Ungenabele nje usale ungingika namanye?


**Interviewer:** UBaba angangenabele ngokunye lapho awusebenzisa khona yini ukubhekisisa kahle ukusizakala? Usale usunginika namanye noma?

**N4D:** Impela. Ziningi into inhlelo engizelaphayo engizifundiswa amakhehla.

**Interviewer:** Usyo ngawo lo muthi, ukuthi kuphi? Nakuziphile ezinye izifo, mhlambe, nakuziphile uwusebenza kwakhona?

**N4D:** Usyo lo muthi, umqalothi?

**Interviewer:** Yebo.


**Interviewer:** Uma ungasithi fahla ukuthi wafinyelela kanjani kuleli zinga okulo lokuba ngumlaphi wendarubuko kwenzalakani mhlambe ukuze ube yinyanga.

**N4D:** Ebunyangeni ngaqala ngingumfana ngina-15 years. UBaba ongizalayo wayeyinyanga, ubaba omkhulu wayeyinyanga, kwafika ethubeni lapho nami

**Interviewer:** Yebo.

**N4D:** Yebo, Baba.

**Interviewer:** *Manje mawusubuyile ezinyangeni, usubufundile ukuba yinyanga, ebese uzodlala yiphi indima ngomsebenzi wakho, lapha emphakathini?*


**Interviewer:** Yebo. *Manje, ngokubona kwakho, ukwelapha kwesintu ngabe kuyahambisana yini nokwelapha kwesilungu?*


**Interviewer:** Yebo. *Kusebenza ngokufana, uma ucabanga?*

**N4D:** Yebo. Umsebenzi wethu, ngibona mina ngowami umqondo ufana nowodokotela wesilungu nowesintu, ngoba manje sixhumene nabo. Okokuthi uma ngabe ngibona into engathi iyaxaka ngiyiphosa kuyena.
Interviewer: Yebo. Ake sibuyele kancane nje kulo muthi, engingakuzwanga ukuthi, usebenzisa into engakanani uma uwuthatha? Uwuthatha uwenzenjani? Usebenzisa into engakanani?

N4D: Uma ngabe kunjani-ke?

Interviewer: Ngisho uma ngabe umqalothi uzowunika umuntu uqale uwenze njani? Uthi akasebenzise into engakanani awenze njani?


Interviewer: Ibhodlela elingakanani?

N4D: Mhlambe, elikagologo.

Interviewer: Ilitha?


Interviewer: Awuphuze kangaki lo muthi ngosuku?

N4D: Mhlambe uzowuphuza kubili ngosuku ngoba uyababa.

Interviewer: Uphuza into engakanani?

N4D: Isipuni sibe si-one.

Interviewer: Ekuseni, emini, ntambama noma?

N4D: Awushaye kubili ngelanga ngoba uwumuthi ofike uhlale nje esiswini ubuze ukuthi khonani. Ubuze ukuthi khonani kahle.

Interviewer: Yebo.
N4D: Uwumuthi obalulekile kahle.

Interviewer: *Ubona ngani-ke ukuthi, uma umuntu efikile kuwe, ukuthi, “Cha, lo muntu udinga umqalothi”?

N4D: Uma umbheka... umbheke umbone lo muntu... ukuthi lo muntu ugula kanje, ake ngimfake lo muthi ongumqalothi.

Interviewer: *Yiziphi izinto osuke uzibona ezi zimpawu zokuthi, “Cha-ke, lo muntu ake ngimfake umqalothi”?


Interviewer: *Yebo.

N4D: Yebo, ngizokala izinsuku ukuthi mhlambe udokotela... insuku ezine... injection kaDokotela iyasebenza namaphilisi. Bese ngiqala fut hi ngifaka umqalothi ngilinde kuqala, ngibone ukuthi into kadokotela wesilungu ukuthi.

Interviewer: *Isebenza kanjani?

N4D: Yebo.

Interviewer: *Okusho ukuthi wena umbona ukuthi wehlile emzimbeni amasosha akhe omzimba asemancane.

N4D: Yebo.

Interviewer: *Uphinde uboneni futhi enye?

Interviewer: Bese umshaya?

N4D: Bese mase ngimshayile ngamqeda, bese ngimbona ukuthi use-right manje. Bese ngimphindisele lapha. Afike iowa dokotela athi sewu-right manje okusho ukuthi useyangidisha-ke manje.

Interviewer: Cha. Hhayi, Baba, ngiyabonga ngesikhathi sakho.

N4D: Ngiyabonga.
Interviewer: We greet you with great respect^.

S1M: Yes, we greet you too.

Interviewer: Indeed, as stated, we have come to do this research that I have previously requested permission to do. It means that in this research, I wish to inform you that it is not a thing of stealing your work as a traditional healer. This research is only about the single medicinal plant that I am researching, whose name is Red bitterberry [Strychnos henningsii]. As such it is in order that, if you would not like us to continue asking you (questions), you have the right to say, “No”. You stop us, and say “No, don’t continue”. If you have no problem, you can then go on and say, “No, proceed”.

S1M: No, there is no problem. We may proceed.

Interviewer: Thank you. Another thing you should know is that we will not reveal your name, where it might be seen displayed anywhere. What we are recording is confidential. Your images will not be shown to (other) people. Your name is safe and your practice is safe too. This is also not going to be used in any way that is unknown to you, because that would be a transgression. So then we can proceed: Firstly we would like to know if, perhaps, you could tell us briefly how one becomes a traditional healer within

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^ emakhosti: refers to the context of the royal chiefs (amakhosti). Its use in the context of greeting indicates that the person is being greeted as if he were a royal chief (i.e. with great humility and respect). This level of respect is normally associated with izangoma. The word, makhosti, is commonly used when addressed by a traditional healer (particularly izangoma) to indicate respectful acknowledgement or agreement.
the community. How does one become a diviner\(^2\) or how does one reach the level at which you are in the community? Could you tell us briefly?

S1M: It has been said that being a diviner just arrives. Its arrival comes about as something you were given by the ancestors. It is like that because, perhaps, there was someone who was a diviner, or in the past was working in this field, or using water (as a vehicle of healing). You find that out when he returns and comes to you in your dreams. At this time you become chronically sick, and then the ancestors tell you to go for initiation\(^3\) now. This is not something you get out of; it feels like there is something that scoops you up and puts you in that house where you will undergo initiation. But at the time you are not aware of how you got there, because there is something that that keeps telling you to go there, but you are without consciousness.

When you get there, they will treat you; treat you with a particular medicine. Then you regain your consciousness, your consciousness returns. When it returns you become aware of where you are. You even recognise the homestead\(^4\). That is where it will come about that something will start telling you; if a patient were to arrive, so that you could tell him: about what the patient is suffering from, and where it hurts, and the state of all things.

Interviewer: What is it that is talking, this thing that keeps calling you?

\(^2\) isangoma (plural: izangoma): a diviner or witchdoctor. The term, witchdoctor, is outdated, prejudicial and inaccurate. For purposes of consistency the word, isangoma, is translated as ‘diviner’ throughout the text.

\(^3\) ukwethwasa: literally an emergence for a first time (specifically within the contexts of a new moon or a change of season). The term is used to refer to the changed state of one who is ‘possessed’ and called to become a herbalist (inyanga) or diviner (isangoma). The period of ukwethwasa refers to the period of initiation into herbal practice or divination.

\(^4\) umuzi (plural: imizi): a homestead, or collection of huts under one headship.
S1M: The thing that is talking? At the time it takes you and throws in that house? There is nothing visible. It just says go to someone, the one who is going to help you. You are shown by your elders who have passed away, who have identified who you should go to.

Interviewer: *Do they talk in images or by actual voices that are talking?*

S1M: They talk in voices which say, “This person can help you”. But it is also in your mind; as if you see this person who says, “Go to someone who is going to help you”. You find that you can resist this. But if you resist it you will perhaps end up dying from it. Whereas, if it possesses you well, you cannot do anything, and you really can die *(from it)*. When you decide to go, the one who is in charge of training you to be a diviner will be able to recognise this, identify the medication you should use, and tell you that your blood is being possessed by the ancestors.

One is given the medication that will cleanse one’s blood. One is cleansed by this medication that is taken daily, until one regains full consciousness. Before your arrival point at which you become able to predict⁵, there is something that sits in your chest and tightens you up *[gesturing at chest]*. Eventually when this thing inside opens up, it breaks out and says, “Now we are setting you free”. Because there is someone that is brought forth who says, “Now we are setting you free. Start talking”.

Interviewer: *Is it a person talking?*

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⁵ *ukuhlola*: to predict or foretell, often by throwing bones. The word is consistently translated as ‘predict’, rather than ‘foretell’ to emphasise the associated gesture (casting bones away from the healer towards the subject), and in acknowledgement that the act is less about telling the future (in terms of events yet to take place) than it is about pointing to current realities not yet articulated (in speech).
S1M: Yes! He is not visible, but he talks in your ears and in your mind telling you, “Now we are setting you free”, and you can start predicting for other people. It is at the time of this breakthrough that one sees. One starts to see images that play like a film when you predict. By its nature the film tells you all about the patient in this way: you see his defects and ailments and he is revealed and you see him. But when this film comes during divining it compels me to work faster. I work quickly so that I don’t lose the things I am seeing. It comes into my conscience that this man is suffering from the things revealed in this way, or that way, or the other.

Interviewer: I understand well. So when there is a patient in front of you, how do you identify the medicine you will prescribe? What tells you or how do you see (which medicine to give)?

S1M: When a patient has arrived, I am told that this man will be helped by this medicine.

Interviewer: What tells you?

S1M: An ancestor. One of those who are have passed on. By saying, this man can be helped by this medicine. They instruct me to mix the herbs in a way that I may not know. It may be said that I should take a herb and mix it with another herb so as to help the patient. I take it and work in the way I am told in my ears as was the case when they originally possessed me. When they told me, “Go to the one who is going to help you”. As before it is a voice with nobody visible. But you know when you are taking out the medicine, that this medicine is going to help this patient. You know that this medicine will help this patient, you give it to the patient, and he recovers.

Interviewer: This voice, is it the voice of a male? A male ancestor or a female person?

S1M: These things differ, my brother. One person could be possessed by a female ancestor; another can be possessed by a male ancestor, within his
blood. It differs from homestead to homestead according to who liked this *(particular)* work. If we may take as an example, so that you understand, if you were a boy having a sister. Perhaps you would not be *(affected)* at all, *(but)* your sister would be possessed. Or perhaps it would transpire that you would have it *(be possessed)*, it possessing the boy and leaving the girl. It differs in this way. In my case the ancestors who possessed me are men. They came to me as a human voice that told me to pray. I said, “No, what would I be praying for?” They said, “No. Pray”. Then I thought that I was going to die because of the arrival of those voices telling me to pray. When I started to pray, I prayed ever more deeply, and that is when I started touching this ancestor I did not know I had.

Those who had come to me then turned against me. There were things that those older women said when I found myself entering a church: In the midst of my praying, they turned against me, and said, “You will not see anything. You will not see anything. Those people who want you and who have already overpowered you are the ones who will allow you to see”. They said that they *(who were possessing me)* are two men. But I said, “No! Inasmuch as I am ill, I will die like this”. These women said, “Leave and go to them. They will take you and bring you to the place of initiation.”

Eventually I accepted that it would be better to accept them, rather than die or that my children die. I then performed a traditional ritual where I made the traditional beer to announce *(to the ancestors)*: “No, it is fine. I agree to this work to which I am being taken”.

**Interviewer:** *Did this occur in a dream or during the day as you were sitting?*

**S1M:** My brother, this thing did not happen in a dream but it does happen in a dreams. But mostly it happens live, as if they stood right in front of me. They were not visible but you can see the images of men I did not know, but I could feel that we were relatives by blood. Then one of them said: “I am your
grandfather. You are my grandson so do not panic”. I was unconscious at the time that they talked (to me).

This is sometimes seen in churches where one may be possessed, and start talking in tongues, falling down and rolling upside down. This indicates that the ancestral spirits are still locked inside him or her. At this time one would not be able to predict. When it opens up and sets one free, saying, “Now we are setting you free”, then one will be able to predict and tell a patient what one sees!

This thing of hurling oneself down violently... of hurling oneself down violently. Perhaps, you’ve seen this in churches when someone was stirred up by the spirits. But there are spirits, and other more powerful ancestral spirits; because the ancestral spirits are powerful. These are the ones to possess you and compel you into initiation. There are also religious spirits that would prevent you from entering the profession of divination or if you were already in the profession, if they were to come, would prevent you from returning to the practice of divination.

When I was taken in this manner I started praying, and my praying revealed to me: “You. We will be taking you now, so that you go to be initiated”. I was not able to dilly-dally about going to that house. My illness made me go, and one goes blindly, knowing that one doesn’t know where one is going and cannot see, but one must just keep going. But there is someone with you who is taking care, perhaps. When you reach your destination, you will find your consciousness returning.

**Interviewer:** When you get to the initiation, what happens there? What do you do when you undergo initiation?

**S1M:** When one undergoes initiation, one uses the same medicines that are already being used by the trainer, and you imitate the way that he/ she is using them. One will take this medicine to aid your recovery, and clarify
everything that has been revealed around your call into initiation. When one takes this medicine one really understands many things that were not known before, and is able to do things for oneself. Furthermore one is trained not to be like those who misuse this work. That is to say, those who pretend to do the acts without having being inducted by the ancestors.

Over there (at initiation), you are given directions. You will be directed to not speak of things that occur, or to keep others’ affairs confidential! For as long as you are there, you will avoid certain things that are discussed so that they do not become a problem to yourself, or the cause of conflict to others. When one predicts, there are sometimes hurtful or burdensome things that cannot be said to the patient. You are taught all these things because you have been selected and placed in this position.

**Interviewer:** Upon your return home, what is the role you play in the community?

**S1M:** When I am working, my brother, it is in the prescribed manner. There are those who go for initiation, but their intentions are not true, and patients come, but at a point it all comes to an end. And the people no longer come. Furthermore, I would never be one of those who misrepresents, and says he will do one thing and does another. Some too are abandoned, because they fail to uphold the law as given by their ancestors who called them to serve, and choose to do as they please. One cannot associate with those who deviate from their calling. I’m not trying to confuse you, my brother, but I’m trying to explain my role in the community, which is to heal people. But what draws them to me? These people are drawn to me by those same ancestors who called me into initiation.

I help the sick who are brought to me, even those who have been told there is nothing that can be done for them. Even those who have been taken to the hospital and been told, “We can’t find anything”. Either there is nothing, or in reality he is about to die. They have been denied, but when they are brought
to me, I will perhaps give a small amount of ground medicine and rouse them. I would scoop some up and instruct him to take it as a snuff, after which he will sneeze, and he will regain consciousness and will be able to recognise the surroundings saying, “Goodness, where am I now? What is it?”

I have been told there is something that heals in this medicine. There is something that heals, which you as a normal person would not be able to identify. But I, and others like me, can identify this medicinal property accurately because it was given (by the ancestors). Perhaps I could take these roots, let’s say these eight roots, and mix them together and decide that I will give it to a particular person suffering from a stomach complaint, which may be due to bad spirits. His bad spirits need this medicine, and I will prepare it for him and instruct the patient to go off and take it as an emetic, and then you’ll see, on his return, a healthy person with his mind restored from its (former) state of insanity. This is because I have done exactly as I was told to do for this person (by my ancestors).

**Interviewer:** In your opinion, is there a relationship between traditional healing methods and Western healing methods? What commonalities do you see existing? Are there any, or are there none, in your opinion?

**S1M:** There is a relationship, my brother. There is indeed a relationship. When you use one medicine, you eventually come to another. Perhaps someone would come to me saying, “Do you know this (particular) medicine?”, but it is not found locally, perhaps one is able to find it in Vryheid. But you can accept it and use it, because you know that with it you will be able to achieve your goal. The ancestors will tell you if this medicine will not be able to help people, and that you should rather leave it. In such a case I would be suspicious and set the medicine aside and leave it, because this medicine is not likely to work according to the methodology I understand, which is to be told what is required to help a particular person.
There is a relationship, my brother, because in the way we do things we are not all the same, people are different, and their health *(is different)*. In this difference in terms of health, there are some who are perhaps jealous, who are, perhaps, hard hearted and do not want to link with other people. However there are others who are different: those who do like to co-operate and use the modality that is required to make people well.

**Interviewer:** *I was referring to the similarities in the ways your (traditional) medicines are used as opposed to that of Western medicines. Do you see a relationship in the medicines and the way they work? In what way are they complementary?*

**S1M:** They are complementary, my brother. I see it *(a relationship)* for myself within the context of my work. I see it *(the relationship)* because sometimes I need to weigh up whether this person needs to take tablets rather than to be treated by me. In such a case I would not tell him, “This is how you’ve come to your present state. This is the nature of your problem”. No! I will tell him, “You need to go to the clinic, Sir”, if it were a gentleman; or if it were a young lady, I’d say, “You need to go to the clinic, young lady”. This is when I cannot see how I can help, but if he goes he will be able to be helped there *(at the clinic)*.

On the other hand, there are patients who start at the clinic, but have been told, “No! On this occasion you need to consult with the traditional healers”, without their being at all secretive.

On these occasions, when they come to the traditional healers, one finds that they come either to be healed completely, or for some specific complaint or other which brings them. When I see that it is beyond my scope, I refer them *(to doctors)! When they get there they will be made better. But there are also times when I prescribe a herbal medicine to be used together with those tablets, even though I do not know what is in those tablets, or what they are mixed with. Sometimes, according to needs of the case, a particular person
may need to take a medicine as an enema because he has a particular abdominal complaint, or for another I may need to make up something to drink in order to clean his blood vessels and increase appetite. I go about it in this way.

So there is a relationship, my brother, even though we are not working closely with each other. But I have even found occasions in which I would not administer anything. With those tablets I described, which I don’t know, I sometimes decide that I can’t give the patient anything... I should give him nothing, because the state of health of his blood is unknown. I cannot progress by force. Imagine if I prescribed an enema to someone who should not have one, like someone who has diarrhea, who is weak and dehydrated and needs a drip. It is contra-indicated that I should prescribe an enema. No, I should refer him. I should take responsibility by telling him to go to the hospital, or to a doctor who knows how to help him.

**Interviewer:** When you reflect on it, have you seen traditional medicines to work similarly to western medicines?

**S1M:** When I reflect on it, traditional medicines work in a similar way, but sometimes the way some work differs. Some work in a similar way, my brother. I will give you an example so that you can see in what way some are similar, such as looking at the way one uses it, or how it heals. At other times they are different. Some work similarly, and others are different. I do not know what is put in tablets, or perhaps in an injection but you find that it still works. There is a medicinal plant that is similar to this medicine, which has had a component extracted, and cooked in the way those things are cooked, and put into those tablets so that they are similar in action.

**Interviewer:** In what way do you use the proverb, “A thorn is removed with another thorn”?
S1M: We use it, my brother. Even when you go to the doctors in the hospitals, they often use the painful injection to take away pains. But one allows them to use this painful injection because it is something that heals the pain. What I am describing now is exactly what is described in the proverb that a thorn is removed with another thorn. Absolutely! A thorn is indeed removed with another thorn. One pain removes another pain.

In this regard, one might find you have an open wound and you will go to have it stitched. (At the clinic) you will be stitched up, and in that re-experience of the painful sensation you overcome the original painful sensation. In this way, you see, it [a thorn] is removed by another because the original pain is removed.

Interviewer: Are there traditional medicines that work in this way?

S1M: Working in what way?

Interviewer: No, let’s say if you were to have a person who has a swelling, that you would use something that is able to cause swelling, using as a treatment things like this, such as appeasing pain by using something painful. Does Zulu traditional medicine employ things like this??

S1M: To appease something painful, if I can put it that way, you are able to use another painful thing. You can bring about appeasement because you bring about the healing of the original pain that existed. For example, you can use the application of hot water for a patient experiencing painful swelling, but this pain that you are applying ensures healing. It removes the swelling by applying another similar pain, but one that ensures healing.

Interviewer: We thank you for that. If we may continue by asking about this medicine used for healing, Red bitterberry? How do you identify it in a forest? How do you distinguish it from other plants?
S1M: How is it identified? By its leaf, but if one does not know one would not be able to. In the forest there are many different types. You simply identify it from another firstly by identifying the forest as an indigenous one. You can identify it by differences that exist between the leaves. This one is right, not that one! *(The leaves of Red bitterberry)* are green and it has a bark that is mature, but not too thick. That is it! Not too thick, but just right! How do you distinguish it by the leaves? You recognise it by the leaves simply by knowing that this is Red bitterberry that you are looking at.

**Interviewer:** *How and when do you harvest it?*

S1M: It’s harvesting? It can be harvested at any time, according to when it is required for use. Sometimes you will see young trees with thin bark, which you will not harvest from, and then others *(with mature bark)* about which you’ll say, “No, this one is right, as I would want to use it”, and you use it medicinally.

**Interviewer:** *How do you recognise the right one to use?*

S1M: It should be the mature trees, which can be recognised by having bark that is rough and peeling away. This is the one that you can use, not the young, immature tree…not the immature tree.

**Interviewer:** *And with respect to the time of day, in the early morning or the afternoon? Does it matter when it is harvested?*

S1M: There are differences *(between medicines)*, my brother. For some medicines there are specific harvest times related to their use, such as harvesting at sunset if you want to use a particular medicine. *(Red bitterberry)* can be used at any time you require it. I collect it and let it dry, or at some point you can grind it *(for medicinal use)*.

**Interviewer:** *Which diseases does it cure?*
**Interviewer:** *Is it only for a headache due to evil spirits?*

**S1M:** It is a headache due to evil spirits, a headache from evil spirits such as arises from an evil charm which has been placed on one. Where there are things like this it will cure it. This medicine is also used as an emetic to induce vomiting, in things such as a love potion, which is a white medicine. But what is this ‘white medicine’? That medicine, whose action is known, is a mixture, possibly a mixture of four roots. Having poured water in a bucket, you put this medicine into the bucket so that they mix, maybe four medicines whose actions you know will be put in, so that they match the specific disease from which the person is suffering. You pour from this bucket and take it as an emetic in the prescribed manner. Used as an emetic it clears the blood vessels since this is where the evil spirits affect a person.

You know, there is something, with respect to this medicine that I could give you to take, that I can say without any doubt: when one uses a medicine such as those used for evil spirits, at the particular time that one uses it, you experience spasms or sensations of shaking. This demonstrates that the medicine applied as you are using it is compatible with you.

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6. **ubulawu:** a love potion, commonly used by young men in their dealings with girls.

7. **umuthi omhlophe:** literally a ‘white medicine’. Within the processes of healing (or any similar transformative process) ‘white’ medicines are used after ‘red’ medicines (representative of the intermediate phase, or ‘rite of passage’), as a final stage in establishing the ‘healthy’ or transformed (white) state, after the diseased or untransformed (black) state.
This also happens when the ancestors possess you, but you won’t know this
at the time, because you are not supposed to know. No, you just do the work,
allowing an opportunity for the work to become certain. You end up just like
them once you have become compelled, without it even being noticed that
they are giving you this work (to do). At this time it is also used in the
strengthening medicine, the emetic ‘white medicine’.

But this also differs. There are times when you should start with the red
(medicine). This ‘red medicine’ is used to make the blood well constituted,
which makes you look attractive to people after you have used it either as an
emetic or as a herbal steaming, because we do sometimes steam. Then you
have to take it out. You remove it from the body by again doing herbal
steaming. Taking out the red medicine prevents the return of the disgusting
looks of people who dislike you as happens if you don’t remove it. So you
should remove it [the ‘red medicine’], and then use the white one, which will
wash your blood so that it becomes white.

**Interviewer:** *This love potion, does it contain Red bitterberry (bark)?*

**S1M:** The love potion is prepared as a mixture to cleanse your blood.

**Interviewer:** *When you say it washes the blood, what do you mean?*

**S1M:** It means that it changes the blood such that you will look like a person
who is comfortable and living well. After all it removes magic charms that
would make one disagreeable or unattractive. Do you understand these
things?

**Interviewer:** *To look attractive?*

**S1M:** You are attractive. Do you understand? You would find that even when
I look at you, you would look attractive despite having a dark complexion.
You see, with respect to how people differ, you will find that where a dark
person is attractive, this will be because of something he is using. You will
also find people of light complexion who appear ugly. This also exists. I don’t know if you’ve seen this? You would also find more moderately toned people who appear less attractive. Do you understand? We use these medicines in this way to establish another type of blood. One that helps a person who is becoming ill.

**Interviewer:** *In what other diseases do you find yourself using this medicine, Red bitterberry?*

**S1M:** You use it in things like headaches. Such as when you, sometimes, develop a nosebleed, and blood is streaming from the nose. Perhaps this arises from being possessed by bad spirits. If you were using it in a case of nosebleed, you would grind its bark and mix it with another medicine to be used as a snuff. You would also find that if we were giving a snuff for bad spirits, it would also be included (*in that mixture*).

Where else? Even in the preparatory process of linking you with ancestral spirits, when you drink that water which is prepared, perhaps in a bucket, and which is to be used as an emetic. It is used in mixtures. But there are really a lot of these. It is included in many of these.

Coming back, we would use it extensively when a person is suffering from abdominal pains – an abdominal pain which is cutting, pulling or twisting. But it is without diarrhea. You would grind it, and put it in water, and let him drink half a cup. We also use it if one is suffering from a mysterious disease\(^8\), which is a sexually transmitted disease in a male person or female.

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\(^8\) **ilumbo:** refers in general to a disease whose cause or origin is unknown. Within the context of these interviews the term is used in reference to a sexually transmitted disease, particularly affecting the youth, which is difficult to treat and characterised by penile sores and marked inguinal lymphadenopathy. This particular manifestation of *ilumbo* is most likely to be syphilis.
NYANGA 1 [N1M]: 73

Interviewer: We bid you a good day.

N1M: Yes, hello.

Interviewer: We have come here because I have asked to conduct my research...

N1M: Yes.

Interviewer: ... around the plant, Red bitterberry [Strychnos henningsii]. To begin with, I should inform you that this research that I am conducting is exclusively about this plant. There is no intention for us to steal your work, and for you to find it applied in places you are unaware of and without financial reward. This process is similar to what we see in initiation. Indeed. This means that you have the right to refuse, by saying, “No we refuse to proceed”, if you feel compelled; you also have the right to say, “No, you may proceed and ask me (questions)”. OK? I don’t know how we may proceed (in terms of this)?

N1M: We may proceed because the work, and indeed the knowledge, is to be shared between people. One day we will leave the knowledge behind, whether we know or don’t know, but what we do know needs to be explained and carried forward into society so that what has been discovered can be applied in making people well. We are fighting for survival. Money is nothing, and being famous is nothing. But when people are healed, they (who have been healed) will praise the person who helped them. The majority of people will survive and give rise to the next generation, so that there are always healthy people to keep the process going. Those (healthy people), in turn, will ensure that it proceeds in this fashion (from generation to generation).
**Interviewer:** Before we ask about the plant *Strychnos henningsii*, could we ask you to briefly explain how a person achieves your position? This position you are in, in which you are helping people the way that you do. Where does it all start?

**N1M:** For me, it started when I was in Standard 6. I never passed it, even though I repeated it twice. Every time it came to examination time my head would become confused and I would run off into the forests and into the hills as if I were an insane person. As if I were an insane person, until I was tied up with chains. I was sent off to spiritual healers or people like that. But I found myself with someone else who helped me. He put me into communal prayer and prayed for me for 18 months. I emerged from there…I emerged, emerging with a bottle to indicate that I had been extremely well and properly trained. That one *(that I had then)* that has fine ropes of twisted calfskin, that works much better than the bones. I continued there. Then I returned home to stay. Then one night, at around 10 or 11pm, I felt the need to leave again and head off on a hunt for some unknown thing. When I returned my father said that I must be tied up with chains, because it seemed as if I needed to be guarded against hurting myself. I stayed there and it went on and on. At the outset I started having visions… visions, appearing through dreams, of medicinal plants, and people with them… all sorts of things.

I took these medicines and tried to use them as I was told. If I were sent to a particular home, I would know how I should get there and exactly how I should proceed. I worked entirely by using this bottle. But this bottle enabled me to build my house, it bought cattle, and through it I educated my children until they had finished. The homestead developed until 2001.

Sometime in March 2001 I was just sitting and drinking. There were patients, but I had not yet started working with them. I just fell, like someone who has fainted. As I fell, a scattering of bones became apparent to me. There were twenty-one bones. What did they mean? You know, I could interpret them all to the extent of being able to say that this bone means this, and that bone...
means that. There were stones, bones, beads, and various other things. I picked them all up and assembled them *(as a set).*

One day I was amusing myself with them, when my son decided that they would do a specific thing to test their grandfather. And I told them exactly what they had done, absolutely! They came out clapping their hands, saying that it is absolutely true that these bones do talk! It went on like this from 2001 until...until...until... improving as it went on. It continued to the extent that I am unable to say how many people I have helped. There are so many people who have been helped, that the full list of names cannot be completed. There are certainly a large number of people who have been healed through my work. It would not be complete if I were to confirm that it were sixty *(people)*. If we were to think of the people in another homestead, and another, and another, it would be closer to a thousand, I’m sure.

It progressed from there; I started doing house calls, solving problems about people who had died in battle... people who had died in battle, old people who had died in wars, where their weapons needed to be ceremonially purified, or their wounds expiated. These things are done at a reasonable distance from the house to which those who had passed away were brought back. A calabash of traditional beer would be prepared. And the people would be brought into the home. Inside the home everything relating to the ritual would be prepared; marijuana *[Cannabis sativa]* would be smoked... whatever...whatever... and a goat would be slaughtered. All of these things would be done, including having the calabash full of traditional beer, to announce that the departed spirit has been brought back home *(to join the body of the ancestral spirits)*.

*amathongo (singular: ithongo)*: the ancestral spirits, collectively.
Indeed, I continued to do these things, and I progressed from what I did for one person being told all over. Goodness me, I didn’t sleep! There were so many phone calls inviting me to go to certain places, people came, I predicted, I did all sorts of things. It was like this, eventually even to the point of people consulting me for their bad luck\(^{10}\). I know that I can remove this by using a sheep’s head. After a while, I would withdraw the bad luck, restoring the former state, so that the ancestor could reconnect.

Indeed, they phoned and they came. I’m telling you, I predicted for so many travellers from Johannesburg, Cape Town, Durban, wherever…wherever… Ladysmith, Dundee, Estcourt …all over. I predicted for whoever came with that desire: Xhosas, Swazis, Mpondos, even Shangaans. All these people wanted to see me so that they could get their affairs in order. It progressed. Goodness, I don’t even think I could count the (number of) things I’m talking about.

**Interviewer:** *When you are predicting what happens, when you are predicting what happens? What is talking?*

**N1M:** The bones. The bones talk in the way they are presented to me at the time I throw them out. It is spoken in my revealing the meaning of each bone. I don’t know, there are more than 100 bones, they all speak. Please open up all those things, my man [*gesturing towards his accessories covered in a sheet*]. Open it [*speaking to the interviewer*]. Pull out this small woven basket and remove those other things. Yes, remove all those. Now take the small basket. No, leave those. [*The basket is placed directly in front of him*] These are all the stories of the people!

\(^{10}\) **amanzi amnyama:** literally ‘black water’. The expression is used in reference to bad luck, and the reversal of bad luck or ill fortune is understood, in terms of the metaphor, to require a process of cleansing in which the ‘black water’ is progressively attenuated until the former clear and unpolluted state is achieved.
Interviewer: *What is this that starts talking to you?*

**N1M:** A whistling spirit\(^{11}\) talks, never a real person, you understand. Whereas over there, with the bottle I was working through the Bible. But if another person were to take it again, far from where I had been talking, he would not see all the things I had spoken of. A person would say it is as I say, it is as I say. Similarly, in using the bones, it is the same with the bones as with the bottle.

Interviewer: *A whistling spirit is talking?*

**N1M:** Yes, to me. Sometimes.

Interviewer: *What is a “whistling spirit”?*

**N1M:** A whistling spirit is a person who has possessed you, that travels in the breath. When he is talking, you interpret and explain, you reveal the meaning, until you come to the end, until you come to the end. He knows about the patient who is still to come, telling me, when I throw the bones, that this patient is coming for this reason, or that reason. *(This is)* because when I am predicting, I scatter them *[the bones]* to the ground... I place them on the ground so that they make a circle, whereafter I open a space within the centre. The person who is being predicted to would take one bone, place it on top of his money and blow on it. I would then bring all the bones together and speak to them *[the bones]*. I speak and I speak, until I'm done. When it comes to the time I should interpret, I would look for the one he picked up initially to see what it represents, drawing all the other bones in from there. They all talk according to the way you see them. All of them, the entire story.

\(^{11}\) *umlozi (plural: abalozi):* a whistling spirit, or, more specifically, a spiritual being who manifests himself in whistling within the hut.
A person would say I’m satisfied that you will help in this way, or that way. And I would tell him to prepare this or that, in this particular way or that particular way, on the specified date. A bad thing is that they tend to all come on the same day, such as last Christmas! Sometimes it’s also like this on Good Friday or midweek, in which case I arrange them according to who would come on which day, and who would come on another. It is not necessary for a goat to be slaughtered around an argument when you can get around it in this way. [Shouting to an old lady outside] Granny, please bring me all my praying robes.

Now that messenger robe [gesturing towards a particular robe] is somewhat like the ancestors, the spirit that is in the bones. But when it becomes necessary for me to work through the messengers, you will see (this) robe being used when I leave to go out to work. I know how to work with them. Everything is understood. Do you know how famous I am, and the roads that I have travelled (for my work)? Countries, the whole world, you can't imagine! It’s only Cape Town that I have not yet travelled to.

Nevertheless… the work has been done, and even now the work is being done in the way you see me working now. Here a protective plait is being prepared. I’m against guns and swords and enemies etc. Once they put on these cords all (animosity) will come to an end. Goodness me, none of my patients would be shot when it is red and black. I tell you, all the taxis under me are alright, and their owners too. Once, he came long ago, a young man, a driver, who was driving for another person, who was a criminal, came and I made him… I made him what was required (to protect him) against being killed. He continued driving that man’s taxis. He later went for foretelling where he was told, “All your taxis will be taken…” But a second thing was also revealed: “…but nothing will happen to a specific (taxi) which is driven by a particular young man, who is mysteriously strong.” Unbelievable!

Interviewer: Now, once you have predicted, how do you determine that this is the one [medicine] to be used?
**N1M:** Easily, easily, easily. There are my praying gowns; you just put them down on the ground. If I am to work with the robes, I would refrain from throwing the bones. There is only one that I am still to get (through a cow). The cow that I will get will indicate its colour. But I will get it eventually. Perhaps you will hear that I have sorted it out, and have continued in this way with it. Please give me that other one [gown]. So much work is done, my Goodness, so much. Just look at them all, look at them.

**Interviewer:** Now when you are using the bones, who is it? How do you determine the medicine (to prescribe)? What says to you, “Take this medicine”??

**N1M:** Yes, it was easy. It all came in its own way: how to remove bad luck; how to rinse black water out so that it returns to white [get rid of misfortune], how to ward off evil; how to create medicines to bring the spirit of ancestors back into the human realm\(^\text{12}\); and many others. I especially create medicines to bring the spirit of ancestors back into the human realm, because, let me use as an example, the people who died at iSandlwana: You wouldn’t be able to go there to find the exact spot where they died because there are so many people (who died there). You would just arrive there, if the bones revealed that an ancestor had died at iSandlwana. Thereafter it would be revealed that your grandmother died at iSandlwana, and that your grandfather is at some other place. For these (people) who died by the sword, I would tell them that they would help by finding me a tree in the vicinity of their home.

\(^\text{12}\) **ukuthwebula:** to hypnotise, mesmerise, or otherwise bring under one’s control. The ritual of **ukuthwebula** is conducted when a family member has passed on in a remote location, and as a consequence is believed to be disconnected from the family and unable to be influenced to intercede (as an ancestral spirit) on behalf of the family. The ritual seeks to return the ancestral spirit to the ancestral home, and to restore the influence the ancestral spirit may be able to exert on behalf of the living.
That is where I would use the medicinal charm (for bringing the spirit of a diseased person back into the human realm) that I was given. I started using it [this medicinal charm] in Ngwavuma, when I drew back the spirit of a person who had committed suicide by hanging in Pondoland.

**Interviewer:** *By whom was it [the medicinal charm] given?*

**N1M:** By the spirits, you see! By saying take a particular medicine and thereafter another etc. If I just told you (the names of) these herbs they would be quite ordinary, but when they are brought together they do the work.

**Interviewer:** *This means that the spirits are talking?*

**N1M:** Yes, don’t you see? Mostly when I’m asleep. It is not revealed through the bones, but mostly when I’m asleep.

**Interviewer:** *When you are sleeping?*

**N1M:** Yes. That it is this or that particular thing. Especially when I have been lying worrying about someone whose condition I have been told about. What am I going to do? Then they say do this and that. It is similar to a situation such as someone coming here about a court case. Is there no medicine that I can give for these domestic things? If it is similar to a court case of this or that particular type, I would say. “OK, it’s fine”. Then I’m told, “Take this particular thing, take that particular thing”. He would take it and go, and report back that it [what was described] was easily dismissed. It is communicated (to me).

**Interviewer:** *What is the role you are currently playing within the community?*

**N1M:** Here in this community?

**Interviewer:** *In all of them, because you speak of the broader community.*
N1M: The people here in this community, perhaps we should in this case refer to the Bible: You know that Jesus worked a lot within his own people, but they did not take much notice of him, until he crossed the sea to Galilee where he arrived and worked with (people of) other nations. It was only then that his neighbours went to him and asked for help because they had not recognised him (before). Because the people you live with do not recognise you very much. The people from far away come, because they also do not recognise those who are working amongst them. Each goes to the other.

Except that when I am predicting, and in predicting I find that the issue is beyond my powers, I know that it is necessary to refer this case to a specific person, in a particular place, it is necessary to refer to a specific person. The patient would be healed once he arrived at the particular place. I cannot hang onto everything until the very end. I am able to deal with many things, but sometimes you need to refer a person. Such as to a hospital. One could come from Nongoma, proceeding to Magwaza, to Eshowe, and ending up at King Edward (Hospital). That is how we make progress.

Interviewer: What is the relationship or overlap between the traditional healing methods, which you are using, and the modern one? How should they be working together, or are there things preventing their concomitant use? In what way are they similar? How do you see (it)?

N1M: There doesn’t seem to be much of a difference between them. Because I have never said to someone, “You need to get an injection”; “You need to get pills”; or “You need to get this or that”. But if it is within me to treat him using the things I prefer to use, then I will treat him. It is he who can choose for himself whether it is me who changes his blood, or whether it should be changed by an injection capable of cleansing it to how it should be.
But a great thing that we are doing here: we do not induce vomiting. No, no, we have a medicine to remove oral poisons. You drink it for two days, and by the third day you experience muscle pains, in the entire body. Then we would give a medicinal enema to remove the (aching) sensation. It comes out as if it exploded, everything comes out and the patient is back to his former self.

This happened in Umlazi, to a young bride who is an in-law of the policemen, Shandu, who lives here in Melmoth, who was suffering at King Edward (Hospital) with a poisoning which had been sitting in her chest. When she came here we saw the nature of the poisoning. This one entered through witchcraft, yet in many poisonings people absorb them through dreams. Others absorb them directly through eating. We told her, “This is a poisoning. Do this. Take this medicine, and drink it in the prescribed manner for two days”. They followed all the instructions to the letter, including administering the enema. Shandu returned and reported that after two months she would no longer be able to pass through this door [she has gained weight]. She went back to hospital and was told that there was absolutely nothing wrong (with her).

**Interviewer:** Now, do you see these Western medicines working in a similar way to those of traditional medicine? In what way do they relate to each other, or are they totally different things?

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13 **amdliso (singular: idliso):** poisons, particularly those administered by mouth. *Amdliso* are usually administered with evil intent, and are believed to be the cause of many mysterious and life-threatening illnesses, including tumours.

14 **uTokoloshe:** a fabulous water sprite, supposed to haunt certain rivers, to be fond of women, to be mischievous to people, and to be used by witches for purposes of witchcraft. In physical appearance, they are said to resemble a tiny, hairy dwarf.
N1M: They have always been related (to each other). Because someone could present as tired, with no energy for anything, low blood pressure, and not knowing what to do to overcome her tiredness and restore her strength. She could get an injection, take tablets, or some other liquid medicines, and be assisted by the doctor to recover. At another time she could come here, and we would proceed with some Zulu treatment, but when she has already recovered (her strength).

They relate to each other, because it not appropriate to separate them (from each other). There is one area in which they do differ: they differ with respect to surgery, such as when a person is diagnosed as having a tumour. We would remove it by the means I have described (previously). Once we removed one from a young lady, who lived next to Zakhele store, Majozi, which was in her bladder and had confounded the white doctors. She came here, and Grandmother prepared a decoction for her, and she drank it and did everything (else), and was told the date on which to perform an enema. The tumour came out and they brought it here. What came out was something that resembled a chicken gizzard. When it was opened it was full of earth and other things. The young girl recovered and had children.

Interviewer: Do you not operate for (tumours caused by) oral poisoning?

N1M: No, no, we do not operate, nor do we induce vomiting. Because one’s blood vessels are as fine as this cotton thread. Now, if you induce vomiting, and the poisoning will not yield, you will cause damage. No, it is undesirable to induce vomiting. It’s undesirable.

Interviewer: Let us return to this plant, Red bitterberry.

N1M: (It is) Red bitterberry, when one says, “I’m sick in this or that way. I have stabbing abdominal pains, I have stomach ache”. It is necessary for you to dig up the roots and grind it to a powder...you pulverise it. Then you take half a teaspoon and put it in water, then when one drinks it. Finished...
finished... the abdominal pains will be totally and completely over. It is very much like another plant, Bushveld saffron [*Elaeodendron transvaalense*], they are extremely similar. With Bushveld saffron, one also grinds it in the same way and prepares a decoction with half a teaspoon in an unfilled cup of water. One would drink it when it is lukewarm. Thereafter it [*the abdominal pain*] decreases, and ceases completely after two to three hours.

**Interviewer:** *What type of abdominal pain is it, Father*?<sup>15</sup>

**N1M:** Oftentimes it is a stabbing pain, without distention. We also use it for pains with distention. If it is found to arise from ancestral issues it is not a problem. But, let me say, when it [*the abdominal pain*] is tormenting him; he is tormented by the abdominal pain... he is tormented by the abdominal pain; when we see that the pain is really putting him in a fix, we would say. “Leave here and go to the doctor and ask for Vermox®”. When he arrives (*there*) and gets *Vermox*®, then they [*worms*] will come out in small pieces... in small pieces. We help each other in this way.

**Interviewer:** *Does this mean that you use it [*Strychnos henningsii*] to get rid of worms?*

**N1M:** Very much. *Vermox*® gets rid of them, removing them (*so that the gut is*) clean and completely done. Sometimes we try to treat, but we see that we are failing. Then we advise someone to rush out and get specific pills. Often. But this is more common in children, but often with most of the abdominal pains of adults we are able to just do (*what we normally do*). There we also work together in healing people.

**Interviewer:** *Where else do you use it besides abdominal pains?*

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<sup>15</sup>  **Baba:** literally ‘Father’. The term of address is used broadly as an indicator of respect directed at any male elder.
N1M: Red bitterberry?

Interviewer: Yes.

N1M: It is not used anywhere else. One uses it mostly when one has abdominal pains. It is very bitter… it is very bitter. It enters the body and kills (pathogens). It is like… [Shouting to the old lady outside] [Granny! Please bring me that white medicine for abdominal pains! Do you see it?] It is bitter but this Western one is not bitter. It stops it completely. It calms things down and everything comes out, and one is liberated and feels well within oneself.

Interviewer: If one were experiencing the pains of being constipated, not the diarrhoeal (pains)?

N1M: No, these diarrhoeal (pains), no... no, When one has a running stomach, this one would be drunk. Because it has the ability to firm up the stomach. But very often, if it is really severe diarrhoea, it is eradicated by isilovu [unable to be botanically identified]. It’s similar to when a person is overpowered by a medicinal enema. We see that we are not able to bring it to an end, we try, but we see that it is failing. Then we would refer them to the doctor, or to his surgery, or to the hospital, where they would give them this white medication. Then the diarrhea comes to an end, everything comes to an end, and the person becomes well. We really must co-operate. We shouldn’t become over-confident.

Interviewer: Nowhere else? This medicine is not used anywhere else? Perhaps as an antidote to witchcraft16, or something else? It’s not used anywhere else?

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16 intelezi (plural: izintelezi): a protective medicine calculated to render evil ineffective.
N1M: No, no, nowhere else. It is only used for abdominal pain. Yes, it is only used in abdominal pain. Here… bring it… [gesturing to Granny outside] here is number one… give it. If there is abdominal pain, number one, number one, number one [pointing at the Western medication brought to him by Granny].

Interviewer: Does it work like this one?

N1M: You just take teaspoons… one teaspoon in the morning, one teaspoon midday and one teaspoon in the afternoon and it’s done. Nothing left. Once I went to another doctor, that one who is in Melmoth, who was going to relocate to Swaziland. I had applied a medicinal enema in a hasty and haphazard fashion and was unable to stop the diarrhoea. It was unstoppable. He came and gave me this (medication). By the time I arrived home, having drunk it in Melmoth, the pains were minimal. Number one champion.

Interviewer: Now, if you were to harvest it [Strychnos henningsii], in which season or time of year would this plant be harvested?

N1M: Red bitterberry? No, it is not harvested. It grows like sticks, it just grows, like sticks. You just come and dig up the roots.

Interviewer: The roots?

N1M: Yes. Then one grinds it until it is a fine powder, and one uses it when suffering from abdominal pain.

Interviewer: Is it only the roots that are used?

N1M: Only the root.

Interviewer: That works?

N1M: Yes. But you see the whole plant. We really believe that it works well if you collect the roots, because they are covered underground, just as we work a lot through the spirits of those who are underground. Notwithstanding
that the leaves also work, the underground parts are really strong. The leaves are affected by the sunlight, by cold weather, and by all the things that can cause a loss of strength. But in the ground you find the roots that are well nourished and have their full strength.

**Interviewer:** *Its characteristic features? How do you identify it, meaning perhaps that it has specific leaves, or anything else that I could describe in a specific way?*

**N1M:** You know, I don’t know how that will happen, but, because you are in the vicinity, it would be good if you were to come when I have just harvested leaves and have them for you to see.

**Interviewer:** *Or could you explain it?*

**N1M:** It has small leaves which are this big, that could be seen as characteristic. It grows like a clump of trees that are in full bloom. It is used a lot in *(male)* stick fighting. It does not get broken, indeed, even in stick fighting amongst young men, it does not get broken. It does not get broken, only the sticks can be broken off from *(the trunk of)* the Red bitterberry. Yes, indeed it works. Or, with respect to this *(plant)*, perhaps you are hunting and you are beset by abdominal pain that is really impeding progress. You would simply seek out its roots. After swallowing *(them)* you would *(be able to)* walk until you arrived home. Perhaps you had eaten the fruit of the Marula tree *[Sclerocarya caffra]* or something else? The Zulu medicine works well. Maybe if you went into the psychology of it you would find specific things that we are incorporating in the way we do things. Indeed, we really shouldn’t run away from these things.

If we return to hypertension, it is easy. Do you know this *(plant)*? *[showing an unidentified bulb]* One chops off a piece and grinds it to a fine powder. Then one puts it in water so that it boils, one filters it and he drinks a single mouthful. And he takes another mouthful the next day. Maybe he returned
from the doctor with it [his blood pressure] having been very high. When it is over, perhaps after only one week, and he goes to the doctor in the second week, he would find that the high blood pressure is no more. The lungs and the heart have been cleaned, and mucus and other things have come out. The eyes have opened. Indeed, he could take off his sunglasses, able to see (enough) to even write a letter, or read the newspaper. Number one.

Yesterday a number of herbalists were here to share experiences and teach each other. They left with a lot (of knowledge), and I remained (here) with a lot (of knowledge). Indeed, the Zulu ones [herbalists] are from Ulundi and they are going to get their qualifications overseas. They have been granted houses and containers. They say that I should also wait for all these things. No, I will see when the time comes, but I know that if they give me something, that it should be here at home. I will continue working here at home and make excellent progress.

Indeed. Here is the one for hypertension… for hypertension, number one, number one. There was someone from Durban, whom I have lost (track off), for whom it worked very well. He was in love with my daughter. Eventually she died, and we lost this person too. He was having a strong blood-purifying medicine\textsuperscript{17} for a host of diseases.

But there is perhaps something we do not like about the way we work: We want the fame that comes with a person who has received (successful) medicinal treatment and other interventions for ourselves. We don’t go proclaiming it like those in Durban who shout about all the medicines they are advertising.

\textsuperscript{17} \textit{imbiza (plural: izimbiza):} a generic term for a large number of strong herbs, used in various combination as boiled decoctions, for blood-purifying purposes.
Because then the strong medicines are not being used after having been kept in the bottle. They are exposed to the outside, affected by the sunlight, and become something else by the time they are given to someone else. Present-day people do not still eat the foods of old. Back then, Jugo beans \textit{[Vigna subterranea]}, maize \textit{[Zea mays]} and all the other solid foods like various sweet potatoes were eaten. If one gave a strong blood-purifying medicine that was too strong the person would quite simply die. If a person arrived and you gave him the same thing now, the person would recover.

Now, when the strong medicines are spread out in the open, whichever herbs, they don’t maintain their original potency, they don’t still have their power. Our Vukani once used a blood-purifying medicine made with Bitter-apple \textit{[Solanum aculaestrum]} as an enema. We did not sleep. We woke up and really had to take him to the doctor. His stomach was griping and causing great discomfort, without diarrhea or anything else. This meant that it was burning him inside and leaving a raw surface. Why? Because of these medicines that are left exposed and are claimed to work \textit{(as well)}. These strong blood-purifying medicines work when they are contained. Those exposed to sun cause people to die, as described. It should be kept as they are at the doctor’s surgery, on shelves in a cool and free environment. The medicine should be stored like this, but not for long period of time. Yes, blood-purifying medicines should not be stored for a long time because when they are \textit{(eventually)} used they are dangerous.

\textbf{Interviewer: Is that it, with reference to Red bitterberry?}

\textbf{N1M:} Yes, the most important things. To do with abdominal pains, to do with abdominal pains. I will dig some up for you. I am troubled by my cattle. In the \textit{(past)} few days I was supposed to go out and look for antidotes to witchcraft and other things and come back with it \textit{[Strychnos henningsii]}. Red bitterberry is hard, its hardness is like that of a cattle bone; it does not grow very big; \textit{(and)} its sticks are commonly as big as these \textit{[gesturing towards his own fighting sticks]}. 
Interviewer:  No, thank you. We thank you for the time you have given to us.

N1M: [Let's throw the bones for the gentleman.]

Interviewer:  We thank you very much. I will write down this knowledge. You will never find your name or personal details anywhere that we have not agreed. Only in the document I will be writing.
KWAZULU-NATAL – WESTERN INTERIOR: Weenen

SANGOMA 2 [S2W]: ↑ 46

Interviewer:  We are here about research relating to the plant, Red bitterberry [Strychnos henningsii]. Our aim is to compare the knowledge of the way it is used traditionally to another Western way called Homoeopathy. We are trying to bring them together to find how it is seen in a Zulu context, and whether we in fact see similar things. My research is (conducted) as a student who is undergoing training just as diviners sometimes have initiates.

S2W: Yes, everything has (a period of) initiation. You would call this education.

Interviewer:  This means that the aim of this research is not to steal the traditional knowledge and have it applied the other ways somewhere else. No, it is only for this research (purpose). In addition, you have a right to say you are not continuing, if you feel that your soul does not agree or that some harm may come from the (sharing of this) knowledge by saying, “No, do not continue”. But, if you feel you would like to assist, you can say, “We may proceed”. Moreover, this knowledge that we are getting here, is confidential. You will never see it published in the newspapers or anywhere else. It is confidential, and your name is safe. May we proceed?

S2W: The plant, Red bitterberry, is used in many different ways. We mostly use this medicine when we destroy (the effect of) oral poisons. Then it is used with other herbs for hypertension. Yes, in hypertension, it is used there. It is a very bitter herb and is combined with two medicines for drinking. Red bitterberry [Strychnos henningsii] is (also) used in ground herbal mixtures for complicated sexually transmitted diseases.

18 izinsizi (singular: insizi): medicinal complexes incorporating powder from charred herbs.
It is also helpful as a medicine for stomachache, when one suffers with abdominal pains. This medication is very useful because it is ingested.

**Interviewer:** Is it not used as an enema?

**S2W:** No, it is not used as an enema. I only know that it is used as a ground herbal mixture that is either licked, or sucked from the fingertips.

**Interviewer:** Licked or sucked from the fingertips? For which other diseases is it used?

**S2W:** Perhaps when one has oral poisoning. Perhaps also if one had the disease described as “ilumbo”.

**Interviewer:** Ilumbo? Oh!

**S2W:** There is a mysterious, complex sexually transmitted disease. If it is said that you have “ilumbo”, then Red bitterberry is used included in our ground herbal mixtures for complex diseases. You lick it and suck it from the fingertips.

**Interviewer:** Now, let us come back to here. When going out into the forest, how do you see that what you have is the real Red bitterberry?

**S2W:** You can tell by its leaf.

**Interviewer:** Leaf? What do you mean by ‘leaf’?

**S2W:** I am not describing the tree in the sense that the trees are like this. Maybe, as we are sitting here, you are seeing this tree. You see that it is Umbrella thorn [*Acacia tortilis*] that is in front of us. Indeed, this is Umbrella thorn. In order for me to see that this is (indeed) Umbrella thorn I look at its leaf. The leaves in this case are green.

**Interviewer:** How are (the leaves of) Red bitterberry?
**S2W:** How are the leaves of Red bitterberry? They are green, and roundish, and could be described as somewhat pointed.

**Interviewer:** *So how do you recognise that a particular Red bitterberry is ready to be taken for preparation of medicines, or that another is not yet ready?*

**S2W:** We see when we are peeling off its bark. When we are peeling it, we can see the difference between the immature tree and that that is mature.

**Interviewer:** *What do you see when you are peeling (the tree) that convinces you (this is) good, that one not, this is the one that works?*

**S2W:** When we are peeling off bark, how do we discriminate? By the bark. *(We look at)* its bark when we are peeling it off. The bark of the immature tree is not thick and fat, it *(the bark to use)* should be thicker and heavier.

**Interviewer:** *Ok, do you also use the one that is not thick?*

**S2W:** We use the one that is thicker and heavier.

**Interviewer:** *You use the thick one? Oh.*

**S2W:** Meaning, the one that strips freely when we are peeling the park. We pound the tree and tell the difference by how the bark peels off. If it does not come apart easily, it is clear to us that the bark is not yet ready *(to be used).*

**Interviewer:** *It is not yet ready? Oh! At what time of year do you harvest it? Or can you harvest it at any time, whenever you want to use it?*

**S2W:** It is usually at its beginning *(of the year).* At the beginning of the year, we would use it according to how the moon is. How full the moon is. That’s it.

**Interviewer:** *Yes. Please elaborate. I would respectfully like you to elaborate there. In terms of your saying that you tell by the moon that…*
S2W: It means that when I say it is based on the moon, I refer to the moon becoming fuller and more visible.

Interviewer: Yes.

S2W: I could say at the time the moon is fully visible. Let me explain it by saying that we would peel the bark when the moon is full.

Interviewer: *When the moon is full at night? Oh. When the moon is coming to an end or this (full) moon?*

S2W: I mean the one that shines with moonlight. Yes

Interviewer: *So does it mean that that tree would be harvested when the moon is completely full?*

S2W: Yes.

Interviewer: I have listened (to you).

S2W: Is there anything else you still need? Perhaps (something) that I could still tell you towards the understanding of it (the medicine)?

Interviewer: *Which part of the tree do you use? For instance, what would we use? Mostly do you use the leaves, or the stem, or bark, or roots? Which do you use?*

S2W: We use roots or peeled bark. Yes.

Interviewer: *Roots are used? OK. If you wanted to use them (the roots), what would you do with them? The bark is also used?*

S2W: We would grind or crush it, pulverise it, or grind it to a very fine powder, depending on the mixture it is going into, and what it is needed for. In terms of needing to be roasted, or burnt, there are these differences. For instance, it needs to have been roasted if it is to be included in a ground
mixture to be taken orally by licking. It needs to be roasted until it is black if it is (to be included in a mixture) to be licked for (the treatment of) mysterious complex diseases.

**Interviewer:** Why do you start out by doing this, ensuring that it is black?

**S2W:** We commence like this, with what is going into it (the mixture), because we want things to combine into a single entity. There are no differences, because in the end the Red bitterberry is white.

**Interviewer:** It is white?

**S2W:** When you have pulverised it, it is a white medicine. But it is a medicine that is powerful.

**Interviewer:** Powerful? Is it bitter? Do you not use its roots (“izingxabo”)?

**S2W:** “Izingxabo”... “izingxabo”? Perhaps the designations are not the same.

**Interviewer:** The roots (“izimpande”).

**S2W:** I know it as “izimpande”. We also use the roots. We use them.

**Interviewer:** There is no problem if you have simply ground it to a fine powder, if it is not to be included in the specific mixture that you described earlier.

**S2W:** As long as you have ground it to a fine powder.

**Interviewer:** Why do you pulverise this medicine?

**S2W:** We do this so that it is perfect (for use) and in a very fine state. We do this so that it is perfect and able to be mixed well with another (medicine). Because a medicine that has not been ground finely is not able to be compounded easily. It is not able to mix well (with the others) and do the things we intend it to do.
**Interviewer:** Aside from this plant, perhaps you could briefly explain how you reach this level? To the situation you are in? What happens in becoming (a diviner)? How does it start?

**S2W:** This is a deep and complicated thing. Because it is a secret, I can describe it in this way. Because it is the secret between you and your ancestor. But what I can explain is that when you have arrived in the homestead to which you have been sent, when you enter and accept this work, you are possessed by the ancestors. The ancestors possess each of us in a way that differs from mine. Here is another initiate: with him, he was possessed through a vision of the ancestors and is undergoing initiation. And that one was also possessed by the ancestors at his final initiation purification ceremony, when he was already finished (*with his training*). This one is still an initiate, and he was possessed in his (*own*) way. It is a secret between him and his ancestors. And with this one a similar thing, but none are exactly alike. But when it has happened, we are all called diviners, a single designation.

**Interviewer:** And with you, if you could tell us briefly, what happened to you when you were possessed.

**S2W:** Me, in my case, they arrived while I was sleeping. The time was 2 am in the early morning. I was just sleeping, sleeping without incident, as normal. I was my normal sleeping self, just as you are your normal self. I woke up. I could say that my waking up was due to having been woken up by a vision.

**Interviewer:** Of whom?

**S2W:** The elders. By that I mean my grandfather. Once I was woken up, he, my grandfather told me to get up and go to Sithole’s homestead. By the time I arose, I was hysterical. I got up, screaming and raving like a hysterical woman, and opened the doors and left, to go to where I had been told. I can say it took a lot of effort. By foot, I arrived the next morning.
Interviewer: *When you arrived there, what did they do?*

S2W: *When I arrived there, I just arrived and fell in the doorway, in the consecrated area. Then an older woman *(who was to train me)* arrived who, at the time that I had fallen, did what she knew was going to wake me up, but not something to do with medicine. She took a stick made from an oxtail, a stick like this. She touched me with it, and I woke up and went inside, where she burnt Everlastings *[Helichrysum spp., most commonly Helichrysum odoratissimum]* to notify *(the ancestors)* that an initiate was here to be inducted *(into initiation).*

Interviewer: *Then you underwent initiation?*

S2W: Then I underwent initiation.

Interviewer: *Here in the initiation, what is learnt? What is done in the initiation?*

S2W: At the initiation a medicine that we call “the Ancestral Pot” is taken. This means that each morning when you wake up you drink it and clear the stomach by vomiting, but before you drink it, you churn it up *(into a froth with a forked stick)* whilst talking to those ancestors who brought you into initiation. At that time you would ask them, you ask them to enlighten you and promote your success, so that you are able to do all that they require *(of you).* When this has been completed, you would drink and vomit. When you undergo initiation you induce vomiting in the morning. You purify yourself by washing and then you induce cleansing of the stomach by vomiting. In the afternoon you would not go to sleep without having come to the consecrated place. You stir up *(the medicine)* and talk to your ancestors; you drink it; then take the pot and put it on your head; and then you sleep having spoken to your ancestors.

Interviewer: *Thereafter, when you have performed the final initiation purification ceremony, do you return home?*
S2W: When you have performed the final initiation purification ceremony you do return, and your ancestor talks again because when you emerge for the first time you are smeared with mud. Not so?

Interviewer: Yes.

S2W: A the time that you are smeared with mud, you have been smeared with red mud because your ancestors have arrived again. Because very often you work through ancestral contact, because the ancestral contact would also talk to you by saying: “Now we want you, at the time that we specify, to wash away that (red) mud and smear white mud. When you are going to smear this white mud, a white chicken is slaughtered, by which you communicate, to the ancestors that you are now smearing this mud. They will arrive and say: “Now we want you to wash away this mud completely”. They speak to you. You wash away that mud and two goats are used; two chickens are (also) used. They are referred to by the names (of the things) they represent. The time will come that you should leave there and be taken home. When you are being taken home, it would be these two goats and two chickens, and thereafter one cow that should be slaughtered.

Interviewer: Now when you are working within the community, what is the role that you play here in the community?

S2W: What I am required to do mostly? Predicting for people.

Interviewer: When a person comes (to you), what shows you that this person is suffering with a particular complaint?

S2W: That is a secret, because it is something that is not able to be explained. It comes to you in a way that I would never be able to explain to you.

Interviewer: Are the ancestors talking in the background, perhaps?
S2W: Yes, the ancestors talk. You follow them. The ancestors do talk.

**Interviewer:** And how do you then identify that this is the medicine to be prescribed?

S2W: You are told in an image that this person, when he is suffering, perhaps he is sick, they would be telling you that this person, for instance, is suffering from a headache; he is a person, how did this headache originate?, who has been bewitched. Indeed! He needs to be given specific things.

**Interviewer:** Now how do you identify the person who needs Red bitterberry? How does he present externally? Or...?

S2W: Who needs Red bitterberry? He is noticed by different indicators. Because, do you know “ilumbo”? Because Red bitterberry is used a lot in strong herbal mixtures for (the treatment of) “amalumbo”. Then there are those who have been diagnosed with diabetes, who are losing weight, and appear to be anaemic. Those who have “amalumbo” become cachectic.

**Interviewer:** What is “ilumbo”?

S2W: Ilumbo is a disease affecting the youth that is sexually transmitted. But there are also those who contract it from the ground, like the diseases caused by walking across witchcraft placed on a path. This arises from their burying strings in the soil, so that (if they crossed them they would develop) “ilumbo”. Yet, most of the time, it is a disease affecting the youth.

**Interviewer:** Now, in your opinion, what do you see as the link between treating traditionally and treating in a Western way, or do they work in a similar way? Or what do you see as the relationship? Or how do you see (it)?

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19 **umeqo**: a form of witchcraft in which sickness is believed to arise by walking across a concoction placed in one’s path. The malicious concoction is usually utilised by rivals, or others who are envious of one’s success, and is deliberately ‘planted’ on one’s anticipated path.
S2W: I do see it (*a relationship*) in the way that they are used together. Because I work with initiates, I often have an initiate arrive (*for training*). The ancestors tell me that this child is possessed by the ancestors. He is undergoing initiation, but in his blood there is a disease of a particular nature. Then, before I start his induction into this work, I will advise him that we should see the doctor. The doctor will examine him for me, and see how well he is. Then, if he prescribes some medication to him, which is to be taken for a certain period, I would report to the ancestors on his behalf, asking them to wait until the doctor’s medicine is completed, after which we will enter him (*as an initiate*). A relationship does exist.

**Interviewer:** *In your opinion, does this medication work similarly to yours? Does it not differ much in the way it works, or how do you see (it)?*

S2W: Absolutely, absolutely! In my opinion they are not very different, because sometimes it is necessary that one passes by here, so that we can see whether it is necessary to get tablets. Because there is something that happens, because you have been bewitched, in which it is not appropriate that I just send you to the doctor to get an injection and tablets. It is necessary in such a case, that you commence (*treatment*) by getting Zulu medicines, and then go (*to the doctor*).

**Interviewer:** *No, we thank you most respectfully. That is all.*
Interviewer: We begin by greeting you again, Father.

N2W: Yes.

Interviewer: This is happening because I am conducting research about the Zulu traditional medicine, Red bitterberry [Strychnos henningsii]. In this research it has been stated that I wish to find out (if there is) a relationship between the ways it is used traditionally and its Western use, to see what relationship or similarity of use exists.

N2W: With the way that you know?

Interviewer: Yes, it is only that. It means that I will take this knowledge and write it down in order to show whether this medicine, which is used by Zulu healers, works similarly to it (the way I know), if it does work similarly. It is not intended that we take your work where you will find it being used somewhere else, in a way that profits other people whom you do not know. Yes, it is not that. It is merely to gather the knowledge to explore how they are similar. Furthermore, in connection with our requesting (your sharing of) this knowledge, you are not compelled, if you feel that you do not agree to share with us, you are not compelled and can say, “No, you may not proceed”. Because what we are doing is indeed legal, I don’t know how we may proceed, Father?

N2W: Yes my child, there is nothing (wrong). We may proceed. Because I have been able to ask you whether you come because of research and without intending to be underhand. And you have explained that you are indeed not using underhand methods and are coming legally. Even in heaven to God, our Creator; He did not say that we must hate each other, it was just an aspect of racism. He did not say we must hate each other, He said that we, the people who heal His breath, should join together and pray, asking
Him to give us power, together with our ancestors who gave birth to us who are no longer present. Because we are here today because of Him. I agree to this, because I can create a joining together with you and the Red bitterberry. Where I know it, I know it merely in abdominal pains, my child, but I know that in the whole of the herbal profession a lot is known about it. But I personally know it in abdominal pain, when one is suffering with stomachache.

**Interviewer:** *What type of abdominal pain? (Pains) associated with diarrhoea?*

**N2W:** *(A pain)* which is decisive and intense. Incredible! *(A pain)* that is totally disabling and cuts right through you. Do you understand?

**Interviewer:** Yes.

**N2W:** I would take it and combine it with Long-awned aloe *[Howarthia limifolia]* or other *Howarthia* spp.] and umgcalanci [unable to be botanically identified]. I strike *(the pain)* and it disappears quickly. It’s true!

**Interviewer:** *How do you use it?*

**N2W:** I just grind it, I grind it and to cook it I just boil it. Then I try to filter that medicine well so that you can drink it.

**Interviewer:** *For how long do you boil (it)?*

**N2W:** No, it is exposed to the water for a very short time, and then I can give it to him to drink. If I give it to him to drink, he would feel that the abdominal pain is subsiding after a short while.

**Interviewer:** *What quantity does one drink?*

**N2W:** I can say one drinks half a cup, half a mug. Do you see *(the quantity)*?
Interviewer: Yes.

N2W: A half, you make a half, or even a quarter, and then you gulp it down.

Interviewer: Then it cures the abdominal pain?

N2W: Then it cures the abdominal pain. That’s how I know Red bitterberry.

Interviewer: How many times per day perhaps?

N2W: No, you could have him just drink it twice a day. In the morning (and), if it is such that it (the pain) continues, you would have him drink it again in the afternoon. That’s it! It depends on how it subsides, because you will be monitoring him with professional expertise. Just as I am a herbalist who undertakes to monitor him.

Interviewer: What is it that you use? The roots or the bark?

N2W: The roots. It’s the roots of Red bitterberry [Strychnos henningsii], and the leaves of Long-awned aloe [or other Howarthia spp.] and again the roots of umgcalaci. That’s it!

Interviewer: Now, if we were to go out into the forest, how would you identify that a particular plant is Red bitterberry? How is it distinguished? How does it present itself?

N2W: It is not found in these parts. Indeed if you knew its leaves, you would know by seeing its leaves that it is Red bitterberry. But your knowing it doesn’t just happen. You are shown by a herbalist, so that you can see that this plant (is) Red bitterbery. Then you will always know it, and work with it.

Interviewer: Are you able to say how its leaves present?

N2W: How can I describe it? They are just small leaves. I don’t know what I can compare it so that you will know.
**Interviewer:** Perhaps its leaves are pointed, or round? Or how do they present?

**N2W:** Yes! They tend to be round and not too pointed. They just tend to be round. Others though tend to be more pointed, but not too pointed.

**Interviewer:** Does the tree become a big tree? How (big) does it become?

**N2W:** It is (a) big (tree)... it is (a) very big (tree). And its colour is not truly green. It is a green, in this case, which could be described as a pale tan.

**Interviewer:** It is a pale tan (colour)? OK. With reference to the roots being used, when are you able to harvest it, or when is it harvested?

**N2W:** I know that even at this time we are able to harvest it. I wouldn’t know (the opinion of) the experts who know a lot about it. (But) at this point, you can do many things. Some would find that you gather it at night as is the case with that plant which is called umphilankosi [unable to be botanically identified]. Do you know umphilankosi? There are (also) uses (for which) it is gathered during the day according to the particular understanding. But again, there is (the occasion) in which it is desirable, if you will be using it in something else, (that you gather it) at dusk. You would initially have gone to look for it in the daytime, and marked it in some way, so that when you return in the evening you would be able to say, “Oh, here it is”, (of the one) you had identified and marked previously. Because it is preferable that you gather it at night, when you are to be using it in that context that requires you to gather it at night. That is it.

**Interviewer:** Yes. If we were to talk about you, inasmuch as you are a herbalist, how do you see that this (particular) person should be given Red bitterberry? (Is it that) he tells you that he is suffering from abdominal pains, or how does it just happen that you (are able to) see?
**N2W:** Entirely by what he tells *(me)*, I do not divine at all. I am merely a herbalist who is told, by saying, “What are you suffering from?” He would say, “I’m suffering from a particular thing, Father”, “What sort of headache is it?”, “It’s a pain in the arm”, things like that. I am told, I *(personally)* do not divine. In that way, it is necessary that “what are you suffering from” is said, whereafter I would be mindful to say, “Oh! *(And)* how would you describe the stomachache?” *(And)* he would reply. No, and we would decisively remove *(the stomachache)* by *(using)* Red bitterberry *[Strychnos henningsii]*. We are able to do that. If it becomes troublesome again, I would still proceed in making progress. There are many other medicines which are dug up that can be brought in such as Common chincherinchee *[Ornithogalum tenuifolium]*. Indeed that one, and others, *(do you see?)* such as undongande *(unable to be botanically identified)*. It is all of those plants, which are used for abdominal pain, which are taken individually and mixed with Tall white squill *[Drimia altissima]* and *(other)* liquid concoctions. *(But)* we can leave that, *(because)* you *(only)* want *(information about)* Red bitterberry.

**Interviewer:** Yes. By way of conclusion, Father, to show that this discussion was with a herbalist, we request that you would give us a brief insight into what happens in your reaching this point of being a herbalist. What are the events that bring you to being a herbalist?

**N2W:** To become a herbalist? Yes. My child, in my case, I was just thinking that I would be leaving this home. When I am ill I would go to you *(for help)*, and you, if you were a herbalist, would help me. Many times the profession of herbalism is like this. I have *(been a herbalist for)* 18 years. I already had grown children when I started 18 years ago. Becoming a herbalist began like this (I never took any steps towards becoming a diviner): I had simply been sleeping, here in this home. It happened that when I dreamt I dreamt things that *(later)* came to pass. I realized that when I dream, I dream things that later transpire. I wondered what was causing this, but I did not know that I
was to become a herbalist. Sometime later, whilst I was asleep at night, the ancestors arrived.

Having arrived in the night, the ancestors proceeded only to talk. One person came and said, “Listen up. We are asking you to go to KwaZulu, near Nquthu, to the homestead of Masondo, and ask them to initiate you into the profession of herbalism, and teach you all the medicines of traditional herbalism (at the homestead of Masondo)”. That man (to whom he was referring) was a foreman, but I did not know him personally. That man was a foreman, but also a herbalist. That’s how it was. By understanding my dreams. I predicted that we would fight battles by it coming to me whilst I slept. I said that I felt, “Hey, I feel a battle coming’, and all the people could move about (in preparation), knowing that things would be exactly as this person has said.

**Interviewer:** Who is this who talks to you in a dream, and tells you these things which are said? Who is it?

**N2W:** I don’t see who it is.

**Interviewer:** Is it a male voice?

**N2W:** It speaks in a man’s voice. To see with the naked eye whether it is my grandfather, my father, or someone else, no, I would be guessing. It is merely a male voice, which I would not be able to identify as (that of) a particular person. I didn’t waste time. I woke up immediately and took the ride! There was a bus designated to go to Msinga. I arrived at Msinga, and then (proceeded) to Phomoloyi. I got out in Phomoloyi (continued on) to Dundee (by) taking taxis. I arrived in Dundee, and went on to Nquthu. I arrived in Nquthu (and proceeded) to Nongoma. What did I take? I then took an articulated bus. I drew in this way towards the person (I was told of) in Nhlabamkhosi. In Nhlabamkhosi there is a mountain called ‘the warning signal’. There is (also) a school which is named after that mountain. Finally,
when I arrived there, I found out where it was. My ticket ended in Nhlabamkhosi, the articulated bus having originated in Nquthu. Indeed, that was when we travelled with articulated buses and van-like taxis. No, I travelled!

When I arrived there in Nhlabamkhosi, I got off (the bus), to now locate the school that was absolutely as it appeared in the dream. I arrived and sought information, “I am seeking the homestead of the Masondo who is a herbalist as well as being a foreman”. A nurse replied, “No, you have arrived where you want to be. These children who live here are where you want to be. Then she said, “But it is a long time before they come out of school. You should leave here, and go down to that crossroad near the bottom of this hill. You should go to those houses nearby and ask for directions to Masondo’s homestead. They will be able to show you where the homestead is.”

Interviewer: Having arrived there, what was the duration of (your) training?

N2W: I would say I finished in a week. He made me write it down. He made me write and I wrote it down on pages in a book I had. Indeed, I wrote a page, I wrote (another) page, another page, (and) another page of what he was telling me about the (various) medicines, such as Red bitterberry [Strychnos henningsii]. Along with the medicine for headaches for instance, and all the others, even unhlangothi [unable to botanically identified], which should be the unhlangothi that comes from the coast, and izinkwantshu [unable to botanically identified, but assumed to be a remedy for cramps20]. I wrote all that down. I stayed there for a week and rode horses. I returned in the second week. We were riding horses up into the hills high above Nhlabamkhosi.

20 izinkwantshu: cramps, particularly in the limbs. In this context, reference is being made to a medicine, and not a disease manifestation. The assumption is that izinkwantshu, in this context, refers not to cramps themselves, but to a regional term for a specific medicine for the treatment of cramps.
Interviewer: Now, in terms of your having returned to the community, what is the role you play within the community?

N2W: Within this community? You would never be told by me, my child. I don’t know who you would be able to ask about this, here where I am living. (The people I see) here now come from Machunu, the place of the Sitholes and the place of the Majozis. Nowadays people from Johannesburg even appear on my doorstep. I could say the entire nation, even from Nquthu, I see everyone who comes for help. I have patients from Nkandla. I have patients from Nongoma. I have patients from Empangeni. I have patients who have just been directed to go to Sikhakhane, go to Sikhakhane. I have patients from the entire region of Bergville. Not to mention (those from) here.

Interviewer: Now, what sort of relationship exists between traditional healing and the Western healing method? Or is their similarity such that (one could say) these things are similar, but this is not similar? How do you see (it)?

N2W: No, my child. I would be able to reply that we are co-operating with doctors, but our co-operation is merely one of verbally agreeing with each other that we will treat people sensitively and in a similar fashion. But in terms of medicines there is not yet this (level of) co-operation between us.

Interviewer: Do they [the medicines] not work in a similar fashion?

N2W: No, they really do not work in the same way, because a person who confounded the doctor were to come here, if I tell the honest truth, I would be able to cure him. I don’t know whether the doctor (in turn) was able to cure (the person) who confounded me. But I have not had the misfortune of being confounded by any person, if he had been brought to this home. It just happens, because the human being is of God, (and) the key of life is held in heaven. It does happen that someone passes away after coming here; maybe his ancestors are seeking him in heaven, but not if one has simply been bewitched by a medicinal concoction placed on one’s path by others.
No, I will bring that to an end, my child, to find him taken \((\text{passing away})\) by another \((\text{cause})\).

**Interviewer:** That is all. We would like to thank you, Mboma, for the personal time you have given us.

**N2W:** No, I also thank you as you thank me, because I really like to co-operate with healing men like you. I wish that you could teach me \((\text{about})\) another \((\text{new})\) medicine to ensure that I continue to make progress and cure the young men \((\text{whom I'm currently treating})\). Here, if a person has been identified as having a problem, he is brought here to be restored to health.
KWAZULU-NATAL – SOUTHERN INTERIOR: Harding

SANGOMA 3 [S3H]: ↑ 35

Interviewer: We greet you with great respect.

S3H: (And we greet you) respectfully (too).

Interviewer: We have come here in connection with research into the medicine, Red bitterberry [Strychnos henningsii]. Yes. We wish to gather an understanding of how it is used traditionally, and then to compare this with the understanding (of its use) in Homoeopathy, another medical system. We are not here (with the intention) to steal your work or that you would find it being used elsewhere. The knowledge that we obtain from you is confidential, and solely for my research purposes. (Ultimately) I will write up (the details of) my research and present it for purposes of qualification. It is not intended to take your work or your name and to have it displayed inappropriately. Inasmuch as you note that we are recording (this), you should (also) note at the outset, that this too will not be shown where it is not appropriate (and required). We make a most respectful request for (your sharing of) the knowledge, in giving us (an understanding of) how you use it. That is all. I don’t know whether we may continue?

S3H: Briefly, in terms of Zulu herbal medicine, Red bitterberry is a plant that grows into a tall tree. We use the bark. If a person has sharp abdominal pain, one knows to take its bark and grind it. One knows to have him (the patient) lick it, and within that period of time, perhaps after 10 minutes, he would say that the sharp pains have subsided. If it were that a patient, perhaps, was unable to swallow well, one knows that one boils it, in a ratio of two spoons to a litre (of water), for a period of three hours until the mixture is hot, and then one allows it to cool down. Thereafter the person drinks a quarter of a cup in the morning and in the afternoon. It is such that a person, (for instance) if one
were treating him, would get medicine which one had measured out in a (one litre) bottle, (with) me telling him, “Drink this medicine and return (to me) after three days to explain to me how you are”.

Bringing us to look at the one thing that we use often: (when) we return and determine, if (a person is) experiencing sharp abdominal pains, how the pains in the abdomen are experienced, or, perhaps, you feel the pain is encircling the umbilicus; or (the abdomen) is bloated, resulting in stabbing pains in the entire abdomen. You understand? I know to burn Everlastings [Helichrysum spp.] and respectfully enquire, because I do not have [am unable to identify] the medicine, I request the ancestors to give me the (required) medicine. Because it sometimes happens that one is able to give a medicine arising from having been told (to) “take the red (one)”. [You understand (what is meant by the red one)? This (one) that is smeared (on the face) by initiates?] (Or) one is told to confront the disease aggressively by administering ‘izihlungu’ internally. Izihlungu21 is a herbal complex made by bringing together many herbs which (together) arouse (and eliminate) that thing (that is causing discomfort). One burns Everlastings and then tells the ancestors, “Here is the medicine which you give me”. He (the patient) then drinks it, and his healing takes place at the same time (as he drinks it).

In working with traditional medicines, there is an ancestral power that is in the very essence (of the medicines). One is not (always) able to treat him [a patient] solely by a herbal medicine, because sometimes you will find that his disease does not require you to treat him by a medicine. It requires (rather) that you pray deeply for him, and (that you) entreat God, and he emerges healed at that (particular) time. Your praying for him requires you to place (your) hand where the suffering is felt, and in so doing one carries away the suffering, and he says, “I no longer feel it [whatever was described]”.

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21 izihlungu (singular: isihlungu): a poison, commonly a snake venom, but also a medicinal antidote to poison that contains small amounts of snake venom and other poisonous herbs. Izihlungu are believed to produce potent results in contexts of battle, or in overcoming attack.
You should ask the ancestors (for assistance). We believe that when a person comes, who is ill, he has not only come because of what was felt, but also (because) an ancestral spirit has brought him saying, “Here is a person whom you are required to help”. It is desirable (then), that you ask (the ancestor), “How should I help this person whom you have brought (to me)?”, even though you know, but you want it from him [the ancestral spirit], so that one is totally effective in treating exactly according to the person’s disease.

**Interviewer:** How does this abdominal pain requiring Red bitterberry commonly present?

**S3H:** The abdominal pain of [requiring] Red bitterberry is one of sharp aching in the person’s abdomen, which may be experienced as a drawing sensation in his umbilicus. You see? When this type of pain is experienced, the person may be compelled to writhe about, due to the presence of a disturbance within his bowel. The Red bitterberry will reach in and take care of the pain. Do you see? It is said that it creates a battle against that thing that moves about (inside). This is a thing that is a part of the Zulu magical understanding of people. Indeed, it is a small work of magic. You see [understand]? For that reason it is desirable to treat it by (traditional) medicine, because the abdominal pains of patients are not (all) similar, (and) do not affect them (all) in a single (common) way. One (person) may experience pains with diarrhoea. Another (person) may experience pain without diarrhoea. If he has (pain with) diarrhea, one knows that it is necessary that I commence treatment with such-and-such (a medicine) and stop it.

**Interviewer:** This abdominal pain of [requiring] Red bitterberry presents with diarrhoea? How is it [the pain]?

**S3H:** It is a sharp pain that is disabling and cuts through the abdomen, and twists and turns. This is said [understood] to be because of the presence of something running about inside. You see? In that case, it is desirable, saying “OK”, (that) you shock that thing inside that runs about in endlessly quest,
and arrest it by the use of izihlungu, because what is it that make it wont to run (about)? What is its cause? It is something which is built on a magic(al understanding); as though it were a snake-like (thing) which is able to turn about on itself within the abdomen and roll about (as it moves). If one uses izihlungu as a medicine, one would accurately target that pain which was placed within that patient by medicines (of evil intent). Do you understand that thing? One is able to subdue that poison within the abdomen by including Red bitterberry (in a mixture). Then you also mix in medicines that are snake venoms and poisonous medicinal herbs (so that) you can destroy the patient’s abdominal pain.

Interviewer: Where else, and in which contexts, does one use Red bitterberry?

S3H: Red bitterberry is able to be included (in a mixture) when a person has a problem such that his kidneys prefer to... he is not feeling well (due to kidney problems). Perhaps he is experiencing burning on urination. One is also able to use it in minute quantities in medicines to be administered as enemas. No, one is definitely able to (include it) where it has cleaning effects, because it brings about a battle against the thing that pollutes the patient’s internal environment. You know what is meant by “minute quantities”? Because we should also not leave it out of (medicines for the treatment of) complex disease, because at the outset we bring together all the medicinal herbs we use for the treatment of people’s (various) disease. Red bitterberry is included. Red bitterberry is also used in strong blood-purifying medicines to be administered as enemas.

Interviewer: For what purpose do you add it to the medicine for the treatment of complex disease?
S3H: There, *(in using)* Red bitterberry in *(the treatment of)* complex disease, it will come to play that *[its]* role *(against)* the poisons that caused the person to become ill. We also include antidotes to venoms\(^{22}\) in that way. In those diseases, it could be that there are, perhaps, thirty *(different)* medicines combined *(in a single medicinal complex)*. Many roots are brought together that, once ingested, are able to be disseminated throughout his *[the patient’s]* body. That one leaves to take care of this, and another leaves to take care of that, so that the disease that causes one suffering is overcome. Because *(the medicine for)* complex disease contains *(something for)* a person who is suffering with headaches, pins and needles, backache, sharp pains, and suffering with pain in the buttocks, the balddder, and whatever other suffering. It is necessary, in bringing these medicines together, that we ensure that the dose is such that a person can drink a particular dose according to how ill he is. OK. It is necessary that I give it to him in this manner, and that he visits repeatedly so that one can ask how he feels it is now, until the patient is taken care of and restored to order.

**Interviewer:** *(It is included) in the strong blood-purifying medicines administered by enema?*

S3H: It is put into the strong blood-purifying medicines administered by enema. Such as, if we were to treat *(a person)* who is suffering from backache. If I could illustrate by way of example: if I were administering an enema for backache there would be pain in the back, with a burning sensation in a *(particular)* spot along the spine. You see? This means that, when I bring together the various medicinal components into a complex for administration as an enema, I would include it *[Strychnos henningsii]*, because it will destroy those pains for me. I give *(the patient)* a medicine that will draw out the impurities that originate in the buttocks.

\(^{22}\) izibiba *(singular: isibiba):* antidotes to snake venoms.
I am able to draw them [the impurities] out, and expel them, but the pain should not continue to be felt, because the pain is the first thing that is actively avoided. A person should not continue to feel the pain, so we start by destroying it [the pain] first. Once one has eased that pain, then one (proceeds to) eradicate that disease that the person is suffering from. Because you should not give to a person who is experiencing pain something that will cause him to experience even more pain. (Rather) the pain ought to subside completely.

**Interviewer:** In terms of the practice of divination, how does one identify that, “No, this person needs Red bitterberry”?

**S3H:** In terms of the practice of divination, it is such that we predict and are told what it [the medicine] is by the spirits of the departed. The ancestors tell you to mix this and that, because [but] sometimes the ancestral spirit ignores the medicines that one has and tells one to go (elsewhere). Perhaps it says, “Go out and harvest Black Jack (Bidens pilosa).” Do you understand? (It tells you to) grind the Black Jack and and have the patient drink it, because it is the patient’s cure. And you (in turn) learn a medicine through realizing (that), “OK, this is something I should take note of because it works”. It is a process of learning that is taught by your ancestor in saying, “Do it like this with respect to a particular disease”. Because a thing [a disease manifestation] can present as a familiar disease, yet it is a concealed disease, which is unable to be treated like all the (other) diseases, (and) requires you to think deeply and differently. Because a patient will say, “I have already been to the doctor and they failed, I have been to the traditional herbalists and they failed, and (now) I’m wanting to know what you can do”. Since we are diviners, we have no choice: we go down on our knees and, amidst the fumes of Everlastings, we ask (the ancestors).

**Interviewer:** Now at the time that one is amidst the fumes of the Everlastings [in the trance state] what happens? Who is this (individual) who talks, the one you call an ancestor?
S3H: At the time one is in the trance state, one talks with the elders, and a situation arises that, perhaps, could be described as being like a television. You understand? Perhaps the voice of the person who is talking, who is unable to be heard (by anyone else), is able to be heard (only) by me, who perceives him. Perhaps I am hearing my grandfather (‘s voice); perhaps a grandfather I do not know but whose voice I know [recognise] by the way he speaks. I know him because he reveals himself (to me) at night when I’m asleep, telling me to do (it) like this, that, and the other, and I just go (off) and do it. Sometimes, at the time I am still burning Everlastings, a specific medicine or another specific medicine is revealed, followed by a person (‘s voice) saying, ‘Boil those medicines and combine them with that medicine”. This means that, in terms of our working through (the agency of) the ancestors, there is an image which we are able to see, which is unable to be seen by another person, which is a secret of the ancestral spirit who reveals (that) secret thing to you by saying how you ought to do it.

Just like the situation in which a person arrives saying that I should predict (for him). Do you understand? When I am about to predict for him I don’t know him. He has an understanding of what he is suffering from, but he seeks to understand where this thing that troubles him originates from. You see? What is it due to? In my case, when I predict, it is necessary to start by telling him what he is suffering from. In precise detail, I tell him everything that I am able to about this already known thing that he is suffering from. At this point I ask my grandfather, saying, “I ask you to enlighten me. Here is a person needing to be predicted for”. I call to all the ancestors to whom I (am able to) call. Then a person (‘s voice) will emerge saying (that) he suffers from this and that; it arose in such and such a manner; it is such and such a thing; (and) take (this) particular medicine and cure the particular thing.

Interviewer: While you are still talking about the topic of using the medicine, have we already discussed the topic of how one identifies it in the wild? When is it harvested?
S3H: Do you see a tree outside? We go into the forests.

Interviewer: *Let's just talk about Red bitterberry.*

S3H: Red bitterberry? I have never harvested Red bitterberry when it was a young tree, or a sapling, or indicating that it is still growing. But it is appropriate to find a mature tree that is in full bloom (*and ready to be used*). From these I would peel bark in such a way that I do not cause the tree to become dry, and so that it is still able to continue (*growing*) so that if others were to arrive they would also be able to harvest. It is necessary for me to peel it in this way so that it would continue to grow and be able to be returned to, if I needed to return on another day [*at another time*].

Interviewer: *Which parts do you use most often? (Parts) of Red bitterberry?*

S3H: Do you mean the parts of the tree that we use when we peel from the appropriate tree?

Interviewer: *Do you use the bark, or the roots, of the Red bitterberry tree?*

S3H: Only the roots are used, it is only the roots that we use.

Interviewer: *At what time of the year is it harvested? (Is it harvested) at night or during the day, or under what conditions?*

S3H: Red bitterberry does not have a particular time when one would harvest it. The only thing that could be said is that one collects (*from the tree*) that is ready to be used. One leaves the young trees to mature. I could never say to you to harvest only in the winter, and to not harvest in the summer. If you were to have run out of your stock at home, what would you have done? But it is necessary, when you are looking at it [*the tree*], to (*be able to*) say, “No, this tree is ready to be used”. You recognise the tree as being fully developed, old and spread out [*well established*]. You would also find that its roots are deep and well established. It is not that tree which is immature and
cannot yet do anything, which is not yet in bloom, and cannot yet be (*used*) with anything. One wants to find a tree that has a stem that, when one peels the bark from it, one finds it [*the bark*] to be thick and mature. Yes, this means that that tree is old and ready to be used.

**Interviewer:** You have explained the abdominal pain, and you have explained the strong blood-purifying medicines for administration by enema and drinking. Is there any other role, perhaps when you reflect, in which you would also use Red bitterberry?

**S3H:** That is all I know about Red bitterberry.

**NYANGA 3 [N3H]:**

**Interviewer:** We bid you good day, Father.

**N3H:** Yes, Brother.

**Interviewer:** We have come in connection with research into the plant, Red bitterberry [*Strychnos henningsii*]. We wish to compare the understanding of its use in the traditional (medical) method with its use according to our Western method (known as) Homoeopathy. It is only that relationship, that we wish to explore, in terms of its nature. We are not here (with the intention) to take your work, as a traditional healer, and steal it to be used in another context, no! In addition your name will not be revealed outside of this (present) context, nor (will) what we are presently recording be shown to the common people, no. It is something that is protected and a secret [confidential].

**N3H:** Yes.
Interviewer: *Meaning that, if you were to welcome us to proceed, and share (your) knowledge with us, we would be most grateful. May we continue?*

N3H: I welcome you because it is our aim, as the people who deal with traditional medicines, to help the people who *(come because they)* are afflicted by *(various)* diseases. We think that it is appropriate that we, who deal with traditional medicines, unite *(in a combined effort)* with you who deal with Western medicines.

Interviewer: *Yes. (If) we were to not begin with (discussion around) this medicine just yet, would you please tell us briefly how you came to be a herbalist? And also give us a brief insight into what your role is within the community. What do you do when you have returned (from initiation)? How did you become a herbalist?*

N3H: What I am able to provide to you is that I grew up under my grandfather. My grandfather was a person who was dealing with *(traditional)* medicines, but mostly with medicines for livestock. Inasmuch as I grew up under him, there was also a grandfather on my mother’s side. *(But)* I grew up under the grandfather on my father’s side. A thing would happen, of the sort that would cause livestock to have a problem, *(that would require medicines)* such as these *(those)* fumigating medicines, and medicines for inhalation by livestock, and those for feeding as a dry powder. I was able, in the end, to be a person who also knows how to use these things through *(my)* closeness to my grandfather.

That inspiration that I found in my grandfather*(’s work)* amongst livestock, gave rise to my knowing that one day I too would want to know how to do these things for my own livestock, so that I would not depend on there being someone else who would help me to keep my livestock well. Finally I took the decision that I should continue to learn. I learnt those medicines, those for inhalation by livestock and the medicines to feed as a dry powder at those times *(that they are needed)*. As I progressed and became an early
adolescent there were medicines that I sought to induce vomiting. My grandfather easily showed saying the emetic medicines are dug up by... you take a particular medicine and another medicine and mix them together, then you use them in the induction of vomiting. My father also had a little knowledge (*about these things*). I also took from my father (*what to do*) when one is really still a teenager and yearns to have the ability to court girls. I took into (*this*) understanding, what my father had also said, that when one is wooing girls one should induce vomiting in this way [*the way he described*]. In the end I had that inspiration to deal with medicines. My being a herbalist could be said to have begun in that way.

**Interviewer:** *Now, inasmuch as you are a herbalist who is established within the community, what is the role that you play currently?*

**N3H:** Within the community, as a person who deals with traditional medicines and who has a place [*responsibility*] amongst all the people within it, it is my role to bring (*disparate people*) together so that I bring about unity amongst the people. To link (*people*) to each other. Because when there are things that set people against each other, I start having a problem. Because people become unable to come to me, here where I am, because there is a nature [*sense*] of people (*being*) at loggerheads with each other. It is necessary for me to encourage the people to accept each other within the community. In other words, something that I work with often, so that they have humanity. Even if one (*person*) does not see (*things*) in a way that is similar to another, but it is nevertheless an important thing to work towards his one day (*in the future*) seeing (*things*) similarly to you. It can be said that the bringing together of (*disparate*) people that I engage in, as a person who is a traditional healer, causes people to understand that they should co-operate. That he is a person from whichever district or location does not matter at all, but the important thing is that people should live (*together*) in harmony.
**Interviewer:** Now if we may return to this plant, Red bitterberry: Please give us an idea of how one identifies it, or of where one finds it. If you could start by saying [explaining] where one finds it.

**N3H:** What I am able to tell you about this plant that you are talking about called Red bitterberry is that it is a medicine whose mode of action is *(in being)* a bitter medicine. That it is a bitter plant that is found in traditional forests. That it is found in traditional forests *(and)* that it is a bitter medicine, *(and that it is useful as a treatment)* of people affected by diabetes. The plant, Red bitterberry is able to help in a type of diabetes. Because how do the medicines that help in diabetes work? It is a bitter medicine that destroys, at the time *(of its occurrence)*, that thing in a person’s blood that causes his heart to beat vigorously, because *(there is)* something *(that)* causes the person’s blood to beat vigorously. It is this condition of a person’s heart that, when he walks quickly, the diabetes causes him to suffocate. Red bitterberry is able to assist in diabetes *(because)* it is able to reach *(the disease process)* and arrest it *[diabetes]*.

In the way that I learnt about it, Red bitterberry is able to cure diabetes alone, without being mixed with any other medicine. One prepares it by putting it in lukewarm water, and a person drinks it in the morning, at midday and in the afternoon. The *(blood)* sugar *(level)* decreases, and one finds that when a person is checked he would find that it *[his blood sugar level]* has come down.

Secondly, when a person arrives, perhaps *(after)* a snake has bitten *(him)*, or an animal or a human being, one is able to contain this effect of the poison so that it does not escalate rapidly by *(administering)* Red bitterberry, because it gets in and breaks it down. Yes! It gets in and destroys that disease. That is all the knowledge I have about Red bitterberrry. *(It can)* also *(be used)* in the case of “umeqo”. Something *(said to be)* caused by “umeqo” originates in having been devised in such a way as to become *[serve as]* a
plot against (someone else). It [Strychnos henningsii] is a medicine that is able to destroy.

Interviewer: What is “umeqo”?

N3H: Umeqo is this [something that occurs] perhaps (when) one is a healthy person, and one knows that one is healthy, and a thing (designed to have a negative influence on one’s life) will be deliberately introduced (by someone else), which is called umbhulelo. Perhaps they give it the name, “umbhulelo”. Other learned people refer to it as “speed trap”. That is what they call it informally. It is this thing that I referred to as “umeqo”. That thing is called umeqo because it is originates in a person going along, and, perhaps, calling one’s name through the concoction [whilst distributing the concoction across one’s proposed path] because they do not admire your success. That thing is called umeqo. One also knows that the Red bitterberry gets in and works (to destroy it). Umeqo is something like that.

Interviewer: And where else do you use Red bitterberry?

N3H: Red bitterberry is also used in the medicines for complex disease [lit. all diseases]. Such as the medicine for the complex disease that human beings collectively are talking about, such as… (by human beings collectively I refer to people generally) this disease that is current that is called “igculazi”. Others call it “HIV”. It encompasses all the diseases on account of the fact that the body’s immune system is rendered unable to continue to work. This necessitates that this medicinal plant be able to get inside and injure [hamper the progress of] the other diseases, in its particular manner as a medicine that destroys [has destructive properties]. I say that this is how it is used in cases of complex disease, but we compound it with other medicinal plants so that (in its combined form) it is able to cure and assist.

Interviewer: What do we mean when we say “uyahlakaza” [“it breaks down”? Does it kill microbes?
N3H: Through its destructive nature, it kills microbes.

Interviewer: Where else is it used?

N3H: In terms of the way I have learnt about it, it is only (in) those four categories that I know (how it is used). Yes.

Interviewer: Now, if we were to go out into the forest, how would one recognise that that this is it [Strychnos henningsii]? Leaves are not (all) similar and trees are also found to not be similar. How would you recognise it, in terms of it having leaves of a particular type and a stem of a particular form?

N3H: Red bitterberry, in terms of the way... or (for) you as a person who does not know about traditional plants, it is a plant which, wherever you seek it out, you will come upon it [it is ubiquitous], but most of the time, in terms of the way I have learnt about it, I generally get it from the area around Durban. Because here in rural areas, in terms of medicinal plants, people have a tendency to destroy Nature so that is is no longer able to found. I often get it from Durban, but I get it for medicinal use as a bark. Because I do not use the root, but I (prefer to) use its bark (ikhabalo).

Interviewer: What is “ikhubalo”?

N3H: “Ikhubalo” refers to the medicine. The part of the tree that one pares off.

Interviewer: Oh. Did you mean the pieces of bark?

N3H: I meant pieces of bark from it [the Red bitterberry tree].

Interviewer: Of these that one collects, what do these pieces of bark look like?
**N3H:** If one were to look at it, one could describe it as, perhaps... ah... *(compared)* to that medicine over there *[reaching down to pick up a piece of bark on the floor to his far left]*. One could look at this *(piece of bark)*, the one selected, *(and)* one could describe it as being a medicine *[bark]* that one could say is dark brown.

**Interviewer:** *Its colour is dark brown?*

**N3H:** Yes. *(The colour of)* this medicine, or just like this one! Yes, it is like that. Sometimes it depends on where it is grown *(and)* the *(appearance of the)* tree varies according to its growing conditions. Indeed, favourable growing conditions would lead to one finding, perhaps, that the bark is of a lighter colour, when one is harvesting in a place that is well-suited to its growth.

**Interviewer:** *How do you identify that, perhaps, you are able to use this (particular bark)? “This bark is the right one, having all the necessary nutrients”. How do you identify (the suitable bark)? In what state is it [the bark] used?*

**N3H:** This bark, even if it is said to have been peeled away early, provided one has the assurance that it is the Red bitterberry, will do its work. Because in the end, just as we are people who have inhabited different places, one would find that locations are not *(all)* similar when one is to fetch a medicine in a particular area, in terms of identification. One thing. If one wants to taste it, *(is that)* it is a bitter medicine. If one were to merely place it on the tongue one *(would)* find that it is bitter.

**Interviewer:** *It is bitter?*

**N3H:** Yes.

**Interviewer:** *When is it harvested?*
N3H: (Medicinal) plants do not have a (specific) time to be harvested. A medicinal plant is something that is needed all the time, and is harvested all the time. (With) medicines there is not a specific time that a particular medicine is harvested for use and set aside. It will be kept and used, but (some) medicine (always) remains and one proceeds in that way. It does not have a designated time in which it becomes ready.

Interviewer: Now when a person comes to you, how do you see that this person needs Red bitterberry?

N3H: When a person comes, such as a person who comes as a patient, he arrives and at the outset we greet each other and ask after each other’s health, and he introduces himself by (providing) his name and surname. He would then say that he has a particular problem, which he will explain in terms of his experience of his state of health and how well he is. Then I will focus my attention on him, and ask him when this thing started, how long ago he first noticed it, and what he suspects it is due to. He is then able to say: “No, this thing started at a particular time. When I consider what it is due to, it is caused by this”. In this way we are able to co-operate in the exploration (of the problem). Then I would say, “OK. I understand this thing that you spoke of, (and) it is necessary for something of this or that nature be done (about it). Sometimes when a patient has come to me, I proceed to explain to him, perhaps, that he should go to (another) person, possibly a diviner. So that the thing with which he comes to me is able to be accurately determined. But we don’t take that (outcome) as an absolute certainty, albeit that he has consulted with a diviner, but rather, through it having been done, it allows for the setting aside of some causal considerations, for the simple reason that you sometimes hear it said that diviners eat Black-eyed peas [Vigna sinensis] [predict incorrectly]. Yes.

Interviewer: Now, when you are giving him [a patient] this bark, this Red bitterberry bark that you have obtained, what do you do to it so that a person is able to use it? How is it used?
**N3H**: OK. The way to use it: I proceed to… One would find, perhaps, that I always have *(some)* bark *(set aside)* so that I would be able to mix it *(with other medicines)* in the preparation of a formulation for the treatment of complex disease. If I were to just use it, as it is, as a single herb, I would take it and grind it, until it is fine powder. One crushes and grinds it until it is a fine powder. *(If)* it is found that a person has this problem of diabetes, I *(would)* take it and put it in lukewarm water. After having taken it and added the lukewarm water to it, I say *(that)* one should wait for a period of 30 minutes. After the 30 minutes *(of waiting)* one would be able to use it, by drinking it.

**Interviewer**: *During the time that you have placed it in water for thirty minutes, what are you intending to have happen?*

**N3H**: During that time I provide an opportunity for the water and this medicine to combine sufficiently. It should draw in such a way that one ensures that the medicine has integrated with the water, *(and)* that the medicine has diffused throughout the water, so as to ensure that it is a true *(and reliable)* medicine. Because, when one is to take a medicine and put it in water, the water *(itself)* should change. To the extent that it is not yet fully integrated, it will not yet have the constituents sufficient to be an effective medicine. Yes, this is what we intend.

**Interviewer**: *Times of the day?*

**N3H**: The way that one should use it, depends, for instance, on how high his blood pressure is, because one would… We… I would normally enquire into how high the blood pressure is. If it appears that it is very high, I would perhaps, say that he should take four spoons in the morning, take four spoons at midday, and take four spoons in the afternoon. There will consequently be a decrease of it *[the blood pressure]*, and the *(number of)* spoons will decrease over time. It improves.

**Interviewer**: *What are the indicators that his blood pressure is high?*
**N3H:** The person tells you it is high. When he arrives and has it, we usually ensure that he goes *(to the doctor or clinic)* to have it checked to see what his blood pressure is. Yes. We don’t see by mental estimation, as *(we would the amount of)* water for *(cooking)* maize meal!

**Interviewer:** No, we thank you, Father. We are grateful for the knowledge that you have given us. We also thank you for the time you have given us. We are very pleased to be with people such as you, who are interested to help us and other people and give them *(your)* understanding as doctors. *I could say that that will be all. Thank you.*

**N3H:** And I would also say thank you, because, as people who are tasked with helping the community, we should at all times assist those who need us to lend a hand. Yes.
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Interviewer: We bid you good day, yes. I would respectfully request knowledge, or (rather) I would respectfully request (your permission) to do research about Red bitterberry (Strychnos henningsii). I am asking for your consent to share (your) knowledge with me. If you would be able to assist us, we request you to say so. You also have the right to say, “No, we cannot proceed”, but if you feel that your spirit agrees (with sharing your knowledge with us), you (can) say, “Let us proceed”. I don’t know whether we may proceed?

S4D: Indeed, you may proceed, with reference to this mere understanding of mine.

Interviewer: It should be said that this information is secret [confidential]. We are not here to take your work and thereafter use it in some other way. No, it is solely to compare the Zulu understanding and the Western understanding (of the plant). Your name [identity] is also safe and will not be used outside of this context, such that you would see it the newspapers or on television, where it was never intended to be. If I may ask about this medicine, where does one find it?

S4D: One finds it in rural areas, like uMkhomazi. One also finds it in uMhlab’uyalingana. (And) one also finds it in Ndwedwe. It is widespread.

Interviewer: If one goes into the forest how would one identify it?

S4D: It comes from knowing the plant as it is.
Interviewer: If one did not know the appearance of the [Strychnos henningsii] tree, what would you be able to compare it to? How does it appear?

S4D: It is a tree that is big and pale.

Interviewer: (And) how are its leaves, perhaps?

S4D: They are green. Indeed, if one knows it, one simply knows the Red bitterberry. If one wished to identify it one would see by the bark. If you taste it it is bitter.

Interviewer: It is bitter? What is the appearance of the bark?

S4D: One could say it is grey.

Interviewer: Now, this medicine, when is it harvested?

S4D: It is good to harvest it in the summer when it is still raining and one is still able peel (the bark) easily. In the winter one would no longer be able to peel away (the bark). In fact, all the trees don’t peel easily in the winter.

Interviewer: What does it do? When one is taking it, how does one take it and use it?

S4D: Abdominal pains. It is used in abdominal pains, when one is tormented by abdominal pains.

Interviewer: Before one uses it, what does one do? One harvests it and then what does one do with it?
S4D: One harvests a quantity and then one crushes and grinds it. One sifts it and puts it into (one’s) porridge and eats it like this when one has a problem with abdominal pain. One also puts it into amagobongo\(^{23}\).

Interviewer: Into amagobongo? What are “amagobongo”? 

S4D: Amagobongo? A person drinks amagobongo when he is undergoing the process of initiation (as a traditional healer). One also puts it into this. In this case the roots are used.

Interviewer: Do you put the roots into this?

S4D: Yes, the roots are used.

Interviewer: How much of it do you have a person drink?

S4D: How much does one have him drink? If one uses it normally, a half a teaspoon in a mugful of porridge.

Interviewer: A mugful? Oh. How many times per day, perhaps?

S4D: One can give it once or twice (a day). Red bitterberry is very bitter. One would never want to drink something so bitter frequently.

Interviewer: What is the nature of the abdominal pain (necessitating the use of Red bitterberry) that you are explaining, because abdominal pains are not all the same.

S4D: It is a sharp pain in the umbilicus that draws inward.

\(^{23}\) amagobongo (singular: igobongo): wide-mouthed calabashes normally used for water or beer. During the process of initiation, a range of medicinal complexes, used largely as purgatives, and having specific significance at specific stages, are prepared in these calabashes. During the period of initiation, the term refers to the medicinal complexes collectively rather than the receptacle.
Interviewer: (The patient experiences) a pulling sensation? There isn’t (concomitant) diarrhoea?

S4D: For (abdominal pain with concomitant) diarrhoea, one uses Bushfeld saffron [Elaeodendron transvaalense].

Interviewer: But (for) this (pain) that is a sharp ache one uses Red bitterberry.

S4D: Yes.

Interviewer: Where else do you use it, besides the mixtures associated with initiation?

S4D: Indeed, it is also included in strong blood-purifying complexes.

Interviewer: Strong blood-purifying complexes? What are strong blood purifying complexes?

S4D: Strong blood-purifying complexes for (the treatment of) complex disease.

Interviewer: Complex disease?

S4D: Yes.

Interviewer: For what purpose is it included in these (strong blood-purifying complexes)?

S4D: It fights against diseases caused by walking across witchcraft placed on a path.

Interviewer: For diseases caused by walking across witchcraft placed on a path? Yes, and what else?

S4D: Something else that it is used for?
Interviewer: Yes.

S4D: It is also included in the fumigation of wild animals in cases of evil spirits. When there is a wild animal it is prepared and used as a fumigant, in combination with soot and cobwebs (as is found hanging from the roof of a traditional hut).

Interviewer: What wild animal is this that you are talking about?

S4D: It is these fabulous water sprites, yes, (and other) evil beings in human form.

Interviewer: And where else is it used?

S4D: It is also included in medicinal powders prepared from charred herbs. In these medicinal powders that are made. These medicinal powders are made by grinding (charred herbs) until they become black like [these] [Pointing at jet black suppositories in a clear plastic bottle overhead].

Interviewer: What are those charred medicinal powders for?

S4D: Medicinal powders for (the treatment of) diseases caused by walking across witchcraft placed on a path and diseases of mysterious and unknown origin.

Interviewer: (Medicinal powders for the treatment of) diseases of mysterious and unknown origin? Diseases caused by walking across witchcraft placed on a path? Then you include it (in the medicinal complex)?

S4D: Then you include it in the charred medicinal complex, and you also put in others [other medicinal herbs].

Interviewer: And where else?

S4D: This is all I know.
Interviewer: *This is all you know? If you could tell us briefly how a person, possibly you, becomes a diviner, or (how a person comes) to this work you do?*

S4D: Excuse me?

Interviewer: *What happens to a person so that he, perhaps, comes to this work that you do, that he becomes a diviner?*

S4D: It just happens when one is young, because indeed it just happened when I was young, and one, perhaps, becomes ill. You become ill without being able to recover. *(Even)* if you are taken to the hospital you are *(still)* unable to recover. When they *[traditional healers]* predict on your behalf they would say that you will become a diviner *[you are called to become a diviner]*.

Interviewer: *Then what does one do?*

S4D: Then one goes into initiation. One goes to another homestead to undergo initiation. In my case, I dreamt of the woman who took me into *(my)* initiation under her.

Interviewer: *What happened?*

S4D: I dreamt of her. I dreamt I was dancing with her.

Interviewer: *You were dancing with her?*

S4D: Yes, I was already having personal problems. Then I dreamt of her. She even appeared suddenly at my place of work and I recognised that his is the woman that I dreamt of. Suffice to say, we chatted. Then she divined for me and I left to enter an initiation.

Interviewer: *At the place you were being initiated, what did you do once you had arrived.*
S4D: You simply arrive, and drink the herbal mixtures related to the initiation process. You are taught how to divine and are also taught (how) to treat medicinally so that, if a person had arrived with a particular problem, you were able to know how you should act.

Interviewer: (And) then how long does it take.

S4D: It depends. It depends on you and your ancestral spirit. Or it is 6 months; others (take) a year; (and) others (a number of) years.

Interviewer: In your case, how much time did it take?

S4D: It was a year.

Interviewer: It was a year? And then you returned (to your) home.

S4D: Then I returned (to my) home.

Interviewer: Having returned home, what role do you play within the community?

S4D: Oh, within the community? Within the community one really treats (medicinally) those people who arrive with their problems, and divines.

Interviewer: In your view, is there a connection between the (traditional) Zulu method of working with them [traditional medicines] and the Western practise of medicine? What is the (nature of the) link, or is there a relationship (between the two systems of healing)?

S4D: I wouldn’t know.

Interviewer: Or are there not any medicines that work in a somewhat similar way, or appear to work like the Western ones that are found at the doctors

S4D: I wouldn’t know.
**Interviewer:** No, thank you. We are grateful for the knowledge that you have given us, our Mother. We don’t know whether there is perhaps anything else (you wish to share)?

**S4D:** Such as?

**Interviewer:** That you have forgotten.

**S4D:** To do with Red bitterberry?

**Interviewer:** Yes.

**S4D:** It is only used in those things. It is used in charred herbal complexes; it is used in the herbal complexes that eliminate the cause of complex disease, *(such as)* those herbal complexes to eliminate diseases caused by walking across witchcraft placed on a path; it is used against all sorts of evil apparitions; *(and)* in medicines for abdominal pains when the pain is a sharp ache, with mild diarrhoea. But it does not arrest the pain that causes one to be ill, *(but)* without diarrhoea. *(For that)* we use another *(medicinal treatment).*

**Interviewer:** Thank you.

**S4D:** I thank you too.

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**Interviewer:** We bid you good day.

**N4D:** Yes, hello. How are you?

**Interviewer:** We are fine, *(thank you).*

**N4D:** Yes.
**Interviewer:** I would like to explain, Father, what I had been saying that this research is not intended to steal your work, but rather it is for purposes of study, and I am required to write it down and discuss it with others, when they discuss their things.

**N4D:** I see.

**Interviewer:** The research into this medicine, Red bitterberry [*Strychnos henningsii*] that I will be writing down is a continuation of my studies [towards qualification], yes. It should also be said that your name will never be revealed outside of this context, or in any place that has not been agreed to, so that you see it in the newspapers or anywhere else. No, it is not (anything like) that. Neither is it that we would take this work to you would (later) see it being used in other contexts. No, it is work intended exclusively for study purposes. Therefore, Father, if you agree that we may proceed to conduct this research, would you (please) say that we may proceed.

**N4D:** No, please proceed.

**Interviewer:** Father [surname], if I may ask, by way of a starting point, to know how one identifies this (plant) if we were to go into the forest to harvest it?

**N4D:** No, We recognise this tree by its small branches *(with)* leaves at the top. Then I look at its trunk, and see that this *(tree)* is the Red bitterberry. Then *(the bark of)* this tree is stripped away. Once this tree *[the bark]* has been stripped, one returns, for it to be sold in the market to people who have an understanding of it. This medicine is used in *amagobongo* to treat people who are ill and needing to undergo initiation into becoming diviners. This is a necessity when they have learnt to become doctors in the traditional Zulu manner. A person would be shown this medicinal herb, so that he necessarily gets this medicinal herb in *(his)* *amagobongo* and drinks it, in order to raise
his messenger [ancestral spirit]. So that he is able to work and assist other people.

Red bitterberry is included in the white herbal mixtures and is able to treat a person who may be suffering with abdominal pain. But, if he were to drink these (white) herbal mixtures, the abdominal pain with diarrhoea would come to an end. The purpose of Red bitterberry is to be a medicine that opens channels within people.

*Interviewer:* Father, could you explain what you mean when you say, “it opens channels within people”?

*N4D:* To make it clearer, when people’s channels are closed, it opens them up (so that) they become clear and he is (once again) able to see. Like in the case of a diviner: if a diviner were in a position where there was something that she was unable to see (clearly). But if she were to drink a Red bitterberry brew all would become absolutely clear to her. She would be able to see (with a clear understanding) and tell you the (precise) nature of your disease, Father.

*Interviewer:* Where else is it used? Where else do you use it?

*N4D:* It is used in a snuff for (the treatment of) headaches. A headache that has a sensation of boiling here [indicating the top of his head] in the head, that pounds, and causes the person’s eyes to become red and unable to see (clearly). One knows that, when Red bitterberry is inhaled by sniffing and combined with the other herbs to create a medicinal complex, the mixture taken as a snuff is able to overcome the headache, and the person would find (that) he comes right and reverts to his normal state.

*Interviewer:* If he was suffering with a headache.

*N4D:* Yes.
Interviewer: And where else would you use it?

N4D: Father, I will... I gave you that which I provided to you because I only assigned you to that level. I cannot proceed to other levels, yes, Father. I am limiting you to only that image [level of understanding of the medicine].

Interviewer: I wonder, Father, how you may be able to elaborate so that I can be helped (in my understanding)? (If) you would elaborate by giving me more insight?

N4D: Indeed, that is how it is. There are many things, but in the end we are here on Earth, and we are all have different talents and strengths. I am a doctor, (and) I know for myself that I am a herbalist. A qualified one! Right now I am arranging my work around a school to be built in iXobho. It is our great wish to have it formally established in iXobho. It was initiated by me. My organization is Bhubesi, established by Doctor Madala and me.

Interviewer: Is Father able to elaborate by providing another example of how one uses it, to assist me greatly? Are you able to give me further information [information at a deeper level]?

N4D: Indeed, there are many formulas which I use medicinally that I was taught by the elders.

Interviewer: Do you mean in terms of this medicine, and where to use it? In what other diseases does one also use it, perhaps?

N4D: Do you mean this medicine, Red bitterberry?

Interviewer: Yes.

N4D: It could be said that I would never reach the end of the uses of this medicine, Red bitterberry, but the understanding of it is this that I have given you. This means that it [my elaboration of its uses] ends there, but (that) I will
never come to finality in my own understanding of it. I (can only) go as far as what I was given. Yes.

**Interviewer:** If you could tell us briefly how you attained this level as a traditional healer? What happens, perhaps, to result in your being a herbalist?

**N4D:** My being in the profession of herbalist began when I was a young lad of 15 years old. My father was a herbalist, my grandfather was a herbalist, (and) the opportunity arose that I should also become a herbalist. This is how I entered the profession. And I also made progress. I went to herbalists to piece together the knowledge, and returned home with it.

**Interviewer:** Yes.

**N4D:** Yes, Father.

**Interviewer:** Now once you had returned from (your period of study under) the other herbalists [training], having learnt how to be a herbalist, what role were you to play through your work, here within the community?

**N4D:** No. Once I had returned from (my) training, and had become a herbalist, I worked, (but) I was not based at home. Because I took what I already had, and I added to it as was necessary. I made progress by repeatedly going off to consult with my peers who were (also) not yet well established. I still go out into other communities to find more effective and better developed forms of practice so that I can pilfer some of that knowledge to advance (my) wellbeing. I treat the community because this thing that I deal with is not mine but (rather) belongs to the community.

**Interviewer:** Yes. Now, in your opinion, in what way does the traditional approach to healing align with the Western approach to healing?
N4D: It truly is like this. In my case, in my own approach to treatment, when I see that a person is debilitated, I refer him to the doctor so that he can give him an injection to restore his strength. Once he has regained his strength there are things [traditional medicines], that are never given by that doctor, that I need to give him. Because he would have the strength once he left the Western doctor.

Interviewer: Yes. Are they working similarly, when you think (about it)?

N4D: Yes, (in terms of) our work, I personally see a similar intention between the Western doctor and the traditional one, because now we co-operate with them. For instance, if I were to see something that confused me I would refer it to him.

Interviewer: Yes. If we could please return briefly to this medicine, what I was unable to understand (earlier), how much does one use when one takes it? How do you take it? How much do you use?

N4D: In what context?

Interviewer: I mean, if you were to give a person Red bitterberry where would you start? How much would you tell him to use, and what should he do with it?

N4D: OK. It depends on the dose with reference to the fact that I would grind the Red bitterberry so that it became a powder. It is necessary for me to know that I should put in a spoon [teaspoon] (of the powdered bark). There is a context in which I should put a teaspoon (of the powdered bark) into a bottle [of water].

Interviewer: A bottle of what size?

N4D: Perhaps the size of a whiskey bottle.

Interviewer: A litre?
N4D: Yes, a litre. I put in (only) a teaspoon because it is a bitter medicine. Of course, it is possible for one to drink this medicine or to use it as an enema.

Interviewer: *How many times per day would one drink this medicine?*

N4D: Perhaps one would (only) drink it twice a day because it is bitter.

Interviewer: *How much does one drink?*

N4D: One spoon.

Interviewer: *In the morning, or midday, or the afternoon?*

N4D: One should take it twice in the course of the day, because it is a medicine that remains a long time in the stomach and works in terms how much is present. It works in terms of a requisite amount being present.

Interviewer: Yes.

N4D: It is a very important medicine.

Interviewer: *How do you identify, when a patient has arrived for consultation, that, “No, this person needs Red bitterberry?*

N4D: If you are observing him...have observed him and seen this person...that this person is ill in a particular way, and just needs me to give him this medicine that is Red bitterberry.

Interviewer: *What are these things that you recognise as indicators that “No, this person just needs me to give him Red bitterberry”?*

N4D: You recognise signs such as the person being debilitated. His immune system is depleted. I would give him Red bitterberry so that I can see if his strength increases. But if the Red bitterberry were seen to not be effective, then I would say that he should first go to the Western doctor so that he can
arrive and be given an injection and pills and be told to swallow \textit{[take]} however many at a whichever specified time interval.

\textbf{Interviewer}: Yes

\textbf{N4D}: Yes. I would wait for \textit{(a few)} days to see if perhaps the doctor… four days… the doctors injection and pills are working, then I would again start giving the Red bitterberry, and wait to see what the doctor’s treatment does.

\textbf{Interviewer}: \textit{(Just taking note of) how it works.}

\textbf{N4D}: Yes.

\textbf{Interviewer}: \textit{You say then that you identify him by debility, weight loss and poor immune function?}

\textbf{N4D}: Yes.

\textbf{Interviewer}: \textit{What else have you seen?}

\textbf{N4D}: Yes.  When he is in that state of debility I refer him as I explained, so that he can regain his strength. Then I treat him.

\textbf{Interviewer}: \textit{Then you treat him?}

\textbf{N4D}: Then I should treat him until everything is resolved, and I can see that everything is right now. Then I send him back \textit{(for examination by the doctor)}.

When he arrives at the doctor, he \textit{[the doctor]} would say that everything is in order and \textit{(that)} he is now healed.

\textbf{Interviewer}: \textit{No, indeed, Father, I thank you for your time.}

\textbf{N4D}: Thank you.
### Tabulation by rubric

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Reproaches; others | 1 | 1 | 2
Restlessness | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1
Restlessness; bed, tossing about in | 1 | 1 | 2 | 1 | 2 | 2 | 2
Sadness | 1 | 2 | 3 | 3 | 2 | 2 | 3 | 1
Senses; acute | 2 | 2 | 3 | 0
Senses; dull | 1 | 2 | 1 | 2
Sensitive | 2 | 3 | 3 | 3 | 1 | 1 | 1
Sensitive; noise, to | 1 | 1 | 2 | 3 | 2 | 1
Sensitive; odors, to | 1 | 2
Sentimental | 1 | 3 | 2
Shrieking | 1 | 2 | 2 | 1 | 1 | 2
Starting | 1 | 2 | 1 | 2 | 2 | 1 | 1
Starting; sleep during | 1 | 1 | 2 | 2 | 2
Stupefaction | 1 | 1 | 2 | 1 | 3 | 1 | 1
Stupor | 1 | 2 | 2 | 3 | 1 | 1
Suspicious | 2 | 1 | 2 | 2
Sympathetic | 1 | 2 | 2
Taciturn | 1 | 2 | 3 | 3 | 1 | 1
Thinking; complaints: agg.; thinking of his complaints | 1 | 2 | 1 | 2 | 1
Thoughts; sexual | 1 | 2
Thoughts; vanishing of | 1 | 2 | 1 | 1 | 1
Tranquility | 2 | 1 | 1
Trifles seem important | 1 | 1
Unobserving | 1 | 1 | 1 | 2 | 1
Vivacious | 1 | 1 | 2 | 2 | 1 | 1
Weary of life | 1 | 2 | 1
Weeping | 1 | 1 | 1 | 3 | 2 | 1 | 2
Weeping; anger, after | 1 | 2
Weeping; cannot weep, though sad | 1 | 2 | 3 | 2
Weeping; easily | 1
Weeping; sobbing; weeping with | 1 | 2 | 1
Weeping; vexation, from | 1 | 1 | 1

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Accompanied by: head; pain in head | 1 | 2 | 1 | 3 | 2 |
Afternoon | 1 | 1 |
Evening | 1 | 2 |
Closing eyes; on: amel. | 1 | 3 |
Fall; tendency to: right, to | 1 |
Floating; as if | 1 |
Intoxicated; as if | 1 | 1 | 2 | 3 | 2 |
Motion; head, of: quickly; amel. | 1 |
### HEAD

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**EYE and VISION**

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**EAR and HEARING**

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APPENDIX R: Relationship to other Loganiaceae
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### MOUTH and TEETH

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### RECTUM and STOOL

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APPENDIX R: Relationship to other Loganiaceae
### APPENDIX R: Relationship to other Loganiaceae

#### Palpitation of heart; motion, slightest
- Strych-h
- Cur: 1
- Gels: 1
- Ign: 3
- Nux v: 1
- Spig: 1
- Stry: 2
- Upa: 1

#### Swelling; mammae
- Strych-h
- Cur: 1
- Gels: 1
- Ign: 1

#### Swelling; mammae: menses; during
- Strych-h
- Cur: 1

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### APPENDIX R: Relationship to other Loganiaceae

#### Pain

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#### Pain; stitching

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**Strychnine (Strych):**

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### Rousing the patient

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### Shooting; about

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### Stairs

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### Teeth

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### Violence

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### Visionary

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### Visits, making visits, relatives; to

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### CHILL, FEVER and SKIN

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#### Fever, heat in general

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#### Burning

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#### Coldness

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#### Dry

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#### Dry; perspire; inability to

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#### Eruptions; itching

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#### Eruptions; rash

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#### Eruptions; stinging

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#### Eruptions; urticaria

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#### Formication

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#### Itching

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#### Itching; scratching, amel.

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#### Prickling

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#### Sensitiveness

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THE FOUR ELEMENTS IN HOMEOPATHY
Mappa mundi of elements and associated temperaments

**choleretic**

**HOT & DRY - CHOLERETIC**  
Lava - Lavaform  
(Stakunta)  
(Dark Red)  
(Red)  
Guardian Angel  
Energetic and decisive  
Overactive, excitable, irritable  
Fear of failure  
Nervous, restless, sharp, quick to anger  

**sanguine**

**HOT & WET - SANGUINE**  
Blood - Bloodform  
(Blush)  
(Bright Red)  
Guardian Angel  
Energetic, active  
Cheerful, optimistic  
Happy, sociable  
Fear of rejection  
Nervous, restless, sharp, quick to anger

**earth**

**DRY - EARTH**  
Mud - Mudform  
(Gray)  
(Mud)  
Guardian Angel  
Energetic, active  
Cheerful, optimistic  
Happy, sociable  
Fear of rejection  
Nervous, restless, sharp, quick to anger

**water**

**WET - WATER**  
Sediment - Sedimentform  
(Dehydrated Soil)  
(Dark Blue)  
(Turquoise)  
Guardian Angel  
Energetic, active  
Cheerful, optimistic  
Happy, sociable  
Fear of rejection  
Nervous, restless, sharp, quick to anger

**melancholic**

**COLD & DRY - MELANCHOLIC**  
Mood Indigo - Mood Indigoform  
(Boolean)  
(Dark Indigo)  
Guardian Angel  
Energetic, active  
Cheerful, optimistic  
Happy, sociable  
Fear of rejection  
Nervous, restless, sharp, quick to anger

**phlegmatic**

**COLD & WET - PHLEGMATIC**  
Mood Turquoise - Mood Turquoiseform  
(Boolean)  
(Dark Turquoise)  
Guardian Angel  
Energetic, active  
Cheerful, optimistic  
Happy, sociable  
Fear of rejection  
Nervous, restless, sharp, quick to anger

**air**

**COLD - AIR**  
Mood Gray - Mood Grayform  
(Boolean)  
(Dark Gray)  
Guardian Angel  
Energetic, active  
Cheerful, optimistic  
Happy, sociable  
Fear of rejection  
Nervous, restless, sharp, quick to anger

Diagram: Mari Norland in collaboration with Misha Norland