

**Analysing Words as a Social Enterprise:
Celebrating 40 Years of the 1975 Helsinki
Declaration on Lexicography**

Collected papers from Australex 2015

Analysing Words as a Social Enterprise: Celebrating 40 Years of the 1975 Helsinki Declaration on Lexicography

The papers in this collection are based on presentations first given at the AustraLex 2015 conference held in Auckland, New Zealand. Following the conference, the papers were submitted for double blind peer review, after which they were revised and resubmitted to form this collection. The theme of the AustraLex 2015 conference was *Analysing Words as a Social Enterprise*. The year 2015 marked the 40th anniversary of the Helsinki Declaration on Lexicography, which aimed ‘to encourage co-operation among experts in the field of lexicography with the aim of defining the necessary terminological equivalents, particularly in the scientific and technical disciplines, in order to facilitate relations among scientific institutions and specialists’ (Organisation for Security and Cooperation in Europe, 1975, p. 55). This theme was enthusiastically taken up by conference participants.

This small collection deals with a variety of terminological and lexicographic experiences from experts in different languages. First, Lidu Gong explores the concept of mātauranga in Māori knowledge. Munzhedzi James Mafela then outlines the emergence of lexicography in Tshivenda, a minority language of South Africa. Cynthia Danisile Ntuli and Nina Mollema extend the theme of the development of lexicographic resources in African languages with their report on a dictionary of isiZulu vocabulary for children and second-language learners. Finally, Danie Prinsloo introduces the reader to lexicography in South Africa and demonstrates how the discipline has moved from a Euro-centric to an Afro-centric approach to the compiling of dictionaries. In particular, he demonstrates how words can indeed be analysed as a social enterprise in the collaborative creation of a children’s picture dictionary.

We hope the reader will benefit from the collective insights of these researchers and be inspired to further analysis and collaboration with other lexicographers.

Julia Miller

(Secretary of AustraLex)

Reference

Organisation for Security and Cooperation in Europe. (1975). *The final act of the conference on security and cooperation in Europe (Helsinki Declaration)*. Retrieved from <http://www.osce.org/helsinki-final-act>

An ocean in a drop – a holographic view of *mātauranga*

Lidu Gong
Te Wānanga o Aotearoa
lidu.gong@twoa.ac.nz

Abstract

A word is a world as in the case of mātauranga, which is multi-layered, experience-based, time-tested, content-rich, valued-packed, spiritually-imbued, passion-driven, and action-oriented as identified in my four-phase searching experiences. Phase 1 involves referential searches from dictionaries and other tool books resulting in the findings that mātauranga as Māori knowledge is all-inclusive: past and present, visible and invisible, informational and educational, philosophical and practical, ways of being and doing as well as a way of knowing. Phase 2 is contextual searches from three Wānanga vision statements, karakia, whakataukī, Māori role models, and interviewing my Māori colleagues, all identifying mātauranga as meaningful to and accountable for all good things in Māori world, both individual and collective, cultural and social, developmental and professional, cognitive and affective, and spiritual and corporal. Phase 3.1 is analytical searches comparing mātauranga with ‘knowledge’ as used in western paradigm with 14 findings of the differences between them leading to the conclusion that ‘knowledge is one-dimensional unfinished mātauranga while mātauranga is multi-dimensional finished knowledge.’ Phase 3.2 is metaphorical searches using 8 metaphors landing at the claim that ‘knowledge informs while mātauranga transforms.’ Phase 4 is phenomenological action searches producing these enlightenments: Mātauranga is more to be experienced than searched, more to be felt and embraced than analysed and conceptualised, and more to be weaved into life than observed. Mātauranga is more about what to do with it rather than what it is. It is not so much something to be studied as something to be oriented towards, drawn into, and identified with. Pursuing mātauranga is a spiritual journey. The transformative mechanism of mātauranga lies in three spiritual words—wairau, aroha, and mana—that form the ‘Holy Trinity.’

Keywords: *aroha, mana, mātauranga, transformation, wairua*

Introduction

The purpose of this paper is giving a panoramic view of mātauranga based on my personal research experiences. Mātauranga is one of the key concepts in understanding Māori theory and applying it to our work in modern world. I choose ‘an ocean in a drop’ as the first part of the title. This choice is based on the assumption that one cannot know a word completely without knowing the whole language. “You cannot know the meaning of any sentence (a word in this case) without knowing the whole language” (Bouwsma, 1986, p. 24). It is true from my Te Reo learning experience. I started learning it since 2011, but I am still struggling with the meaning and use of ‘i’ – the smallest but the most frequently used word in Māori language. It is a structural word without content meaning of its own but functions to connect other words to make sentences. How about the multi-layered word mātauranga - a word that is experience-based, time-tested, content-rich, valued-packed, spiritually-imbued, passion-driven, and action-oriented? We cannot know mātauranga well enough without knowing Māori world as a whole, and by understanding mātauranga wholeheartedly we can stand taller in the world and deal with it more constructively.

About the Researcher

“Mātauranga Maori responds to the three great questions of life, namely: Who am I? What is the world that I exist in? What am I to do?” (Royal, 2012, p. 35). I am not Māori, so Linda Smith’s words —“Kaupapa Māori Research is research by Māori, for Māori and with Māori”—serve as a constant reminder to ‘regulate’ or re-orient myself as a researcher. Working in Te Wānanga o Aotearoa, learning Te Reo, participating in kapa haka competition, getting involved in rangahau (research) activities, and attending world indigenous conferences in the last few years do not automatically qualify me as being capable of undertaking this project, but they do allow me to experience mātauranga from a phenomenological way, and give me a vantage point to re-define myself, re-orient myself with the world I am living in, and re-frame my research paradigm. I am motivated by my own transformational experience in the Māori work environment and my belief that “what is good for Māori is good for the world” (Ohia, 2013).

Significance of the study

“Māori communities are slowly moving across a historical threshold” to meet the world with its “creative potential” which “is coming to conscious articulation as a culture-wide theme and principle for action” (Royal, 2009, pp. 6-7). Exploration of mātauranga is to bring the Māori subconscious world into the conscious domain that may help trigger off ‘creative potential’ that is from Māori but not limited to Māori. Two significant claims were made during the Seventh Biennial International Indigenous Research Conference. The first was made by Justice Joe Williams: “21st century will be indigenous century” (Williams, 2016); and the second by Sir Peter Sharples: “Māori will lead New Zealand into the future” (Sharples, 2016). Exploring mātauranga in its panoramic dimensions and applying it with its full force will serve as a pathway to bringing these two claims from potentiality to reality.

Methodologies

Multiple perspectives—referential, contextual, analytical, metaphorical, and phenomenological action searches—are employed, and each has its limitations as well as its advantages. They together create an overall picture of mātauranga, and reveals its transformative power in education, environment protection, and social work. These methodologies were not consciously chosen for research purpose, rather they unfolded themselves naturally to me as inner calls to answer my life questions evolving into a four-phase transformation journey and leading to my findings, which I believe, hold universal ‘creative potential.’ These perspectives are framed chronologically in 4 phases, and each phase is a milestone indicating my transformative progress. Phase 1 is referential searches, which mainly rely on literature review or paper work. We can call this a linguistic approach. Phase 2 is contextual searches, which are based on the actual uses of mātauranga drawing from the proverbs, prayers, chants, and Māori role models representing the Māori world and the Māori working environment. We can call this a pragmatic or social approach. Phase 3 is comparative and symbolic searches, which can be called analytical and metaphorical approaches respectively. Comparative searches aim for the differences between mātauranga as a corner stone of Māori theory and ‘knowledge’ as used in western paradigm. Symbolic searches focus on a series of metaphors to illustrate the differences between mātauranga and ‘knowledge.’ Phase 4 is a type of phenomenological searches drawing from the researcher’s personal experiments in work place and everyday life. This can be called self-reflective action approach. These 4-phase searches serve as staircases uplifting me from one level of understanding to another and finally leading to transformation.

Phase 1: Referential searches

This search is activated by my initial question when I first joined Te Wānanga o Aotearoa in July 2010: Why do we do karakia and mihi (prayer and greetings) every day? The answer given to me by my Māori colleague was: ‘It’s based on mātauranga, and aimed for mātauranga.’ What is mātauranga?’ This set me on the first part of my rangahau journey looking for the meaning of mātauranga.

The root word of mātauranga is ‘mātau’ as a verb meaning ‘to know, acquainted with, study, understand,’ and as an adjective meaning ‘be clever, knowledgeable.’ ‘Ranga’ is a noun suffix. ‘Ranga’ is also a verb meaning ‘weave’, and we may infer from the word combination - ‘mātau’ + ‘ranga’ - that indicates knowing, understanding or getting informed. We can also trace the meaning from a whakataukī (proverb): Mā te mātau ka mōhio; mā te mōhio ka mārama; mā te mārama, ka maumahara, ā, whakamahia (Through experience we know; through knowing we understand; through understanding we remember; and by the end, we act upon it). It resonates with the English proverb: There is no substitute for experience.

Reference books explain mātauranga as “information, knowledge, education” (Ryan, 1997); and “wisdom, understanding, skill” (Moorfield, 2005). Mātauranga is sometimes used interchangeably with ‘mātauranga Māori’, and they are identical as the word ‘Māori’ was

added to mātauranga since colonization started in New Zealand to distinguish it from 'knowledge'. So mātauranga rather than mātauranga Māori is used in the remaining parts of this paper except in direct quotations. Mātauranga Māori "encompasses all branches of Māori knowledge, past, present and still developing" (Mead, 2003, p. 305). "Mātauranga Māori refers to Māori knowledge in its widest and broadest terms" (Mead, 2012, p. 11). "Knowledge, comprehension, or understanding of everything visible and invisible existing in the universe and is used synonymously with wisdom" (Landcare Research, 2015). "Mātauranga Māori is ... a term that places importance on Māori histories, knowledge, and language; it refers to the Māori way of thinking, doing, and acting" (Mead, 1997). "Mātauranga Māori bridges both traditional and contemporary Māori knowledge, curriculum, pedagogy, and philosophy" (Doherty, 2012, p. 19). "Mātauranga was codified knowledge, and the explicit usage of mātauranga has come through its literacy background" (Royal, 2007). Mōhiotanga is explained as embedded knowledge that is tacit and embodied in activity, while māramatanga is "wisdom, understanding, and illumination" (Edwards, 2012, p. 39). "It includes not only knowing, but also how it is known – including how Māori explain, understand, and develop phenomena and reality" (Edwards, 2012, p. 42). "Mātauranga Māori is an epistemology that incorporates the spiritual dimension which makes room for transformative learning" (Browne, 2005, p. 15). Royal has developed a working definition of the term with its origin:

Mātauranga Maori is a modern term for a body of knowledge that was brought to these islands by the Polynesian ancestors of present-day Maori. Here this body of knowledge grew according to life in Aotearoa and Te Wai Pounamu. After an initial period of change and growth, the arrival of European populations in the eighteenth, nineteenth and twentieth centuries had a major impact on the life of this knowledge, endangering it in many substantial ways. Yet new knowledge was also created through the encounter with Europeans and the experience of the creation of a new nation called New Zealand. Important fragments and portions of earlier knowledge – notably the Māori language – remain today. These fragments and portions are catalyzing a new creative period in Maori history and culture and in the life of the New Zealand nation (Royal, 2009, p. 31).

In defining mātauranga, Royal stresses that "mātauranga Māori expresses itself in various ways and in many settings", and "stands for something essential, distinctive and important about the Māori world" (Royal, 2009, pp. 6 & 11).

Summary

The exploration in Phase 1 results in the following findings: Mātauranga as Māori knowledge is all-inclusive - past and present, visible and invisible, informative and educative, philosophical and practical, ways of being and doing as well as a way of knowing. However, this all-inclusive concept is too general and abstract for me as an 'out-sider', and I need to understand it in context. What do people actually mean when they use the word mātauranga? This question drove me onto the second phase of my mātauranga journey.

Phase 2: Contextual searches

According to Use Theory, “the meaning of a word is its use in the language” (Wittgenstein, as cited in Biletzki, 2014). Due to the arbitrary nature of the connections between the form of words and their references, the real meaning of words can only be found in the context where they are used involving the user’s intent conditioned by the social and cultural situations and other environmental factors. This search focuses on five sources: Wānanga vision statements, karakia, whakataukī, Māori models, and interviews. The following are how ‘mātauranga’ has been used in contexts:

Three wānanga

The word ‘mātauranga’ is widely used in educational environment in New Zealand. The vision of Te Wānanga o Aotearoa is: *“Ko te whakarite mātauranga e hāngai ana ki ngā wawata o tēnei whakatupuranga ...”* (Mātauranga is arranged and adapted to meet the expectations and aspirations of the present generation). The vision of Te Wānanga-o-Raukawa is stated as *“Kia rangatira te tū a Te Wānanga-o-Raukawa hei whare ako, whakatupu hoki i te mātauranga”*. (Te Wānanga-o-Raukawa stands tall in the world as a learning centre through its cultural heritage.) The vision of Te Whare Wānanga-o-Awanuiārangi is expressed in this way: *“Rukuhia te mātauranga ki tōna hōhonutanga me tōna whānuitanga.”* (Exploring and absorbing our traditional knowledge in its full scale by immersing ourselves into it.)

Karakia

“Nau mai e te Wairua Taketake o Tānenuiārangi ... Nāu te Whiwhinga Tahitanga o te mātauranga mai Te Toi o ngā Rangi.” (Welcome to the Great Spirit of Tāne who singularly brought knowledge from the highest of the 12 Heavens.) Mātauranga used in this opening karakia refers to the sacred nature of knowledge derived from the three baskets according to Māori legends. In Māori culture, the word ‘legend’ is essentially different from its concept in western worldview, which is regarded as something purely imaginary. The worldview of Māori is reflected in their legends. *“Tukua atu the Hirihiringa o te Mātauranga; whakahokia ki Te Hononga o ngā wairua of ngā mea katoa.”* (Submit the Educational Guide; return to the Spirituality of everything.) Mātauranga used in this closing karakia can also be understood as derived from the three baskets with its spiritual power.

Whakataukī

Whaowhia te kete mātauranga (Increase the content the educational basket). *Whai ake i te mātauranga* (Grow beyond education). *Ko te manu e kai ana i te miro nōna te ngahere, ko te manu e kai ana i te mātauranga nōna te ao* (The bird that partakes of the miro berry reigns in the forest, and the bird that partakes in the power of knowledge owns the world). The basic connotative meaning of mātauranga as used in the above three proverbs is consistent with the two karakia cited in the previous paragraph, i.e. Mātauranga is taonga - God-given gift, and therefore, serves as the source of rangatiratanga (sovereignty) enabling people to take full control of their life fortunes.

Māori models and interviewees

Bentham Ohia, when asked to give some advices to the new generation, says: *“Me ngākaunui ki te tangata, me ngākau pono ki te mātauranga”* (Have genuine passion for the

people and a deep respect for education) (Harrington, 2010, p. 29). The editor of the book translated mātauranga as 'education' while it can also be understood as 'core values' in Ohia's advice. Darcy Nicholas, in answering the question "*he mea nui te mātauranga ki a koe?*" (Is education important to you?) says: "*Ko te mātauranga o nāianeī, he whanonga waiwai noa ... He pērā hoki te mātauranga me mau i a koe hei oranga mōu*" (Education as we know it today is merely the schooling of basic knowledge ... knowledge in its true sense helps you see further and with greater clarity) (Harrington, 2010, p. 11). He mentioned mātauranga twice. In the first instance, it refers to "mainstream education", while in the second it is used as "knowledge in light of mātauranga" that leads to one's well-being. Wynton Rufer answers the same question about the importance of mātauranga this way: "*He akoranga nui tēnei hanga te ora*" (Life is one continuous educational experience) (Harrington, 2010, p. 19). Here he regards mātauranga as a life goal worth pursuing continually. Farah Palmer, in a similar context, takes mātauranga as education in Māori context in making important decisions in life when she says: "*Nā te mātauranga i āhei au te whiriwhiri i te huarahi hei whāinga māku*" (To me education provided me with some self determination. I was in charge of my own destiny) (Harrington, 2010, p. 23). Julian Wilcox uses mātauranga in a similar way "*He taonga me āta poi poi tēnei mea te mātauranga ... Ko te mātauranga te huarahi tika, e eke tūturu ai te katoa ki te tomata*" (Knowledge attained must be treasured and nurtured ... education remains the only true pathway to that happening in any real way) (Harrington, 2010, p. 43). Theresa Reihana sees mātauranga as something to identify who we are and navigate where we go: "*Arā anō tēnei momo mātauranga, ko ngā tikanga, ko ngā uara ka whakatōkia e ō mātua ki roto i a koe. Ko te otinga atu, ko tō tuakiri, ko tō momo*" (A school education is important because it gives you tools for a successful career and this definitely helps as we all need bread and butter to survive. This defines who we are) (Harrington, 2012, p. 23). Although each of the above Māori models expresses his or her understanding of mātauranga in his or her own way, there is a common thread running through their understanding: Mātauranga is value based and responsible for their successes. They have woven mātauranga into their life fabrics and made a big difference to the world as well as to themselves.

The findings from the above Māori models are consistent with those from the 25 interviewees who are Māori tutors and managers working in Te Wānanga o Aotearoa and who were selected for their significant contributions to the organisation. The first question is 'What is your understanding of mātauranga Māori?' Here are a few responses: "Mātauranga Māori is a synonym for the idea of 'Māori knowledge'. It is a facet of Māori epistemology that focuses on the ideas, tikanga and values that have shaped te ao Māori (Māori world)". 'Mātauranga Māori is like water. You have to swim in it to know it'. 'You have to do mātauranga before you know it'. 'Mātauranga is me. I'm mātauranga'. What impresses me most throughout the interviews is that almost all of the interviewees identify mātauranga as something deeply embedded inside them, something inseparable from their daily lives, and a thing of the heart rather than of the mind.

Summary

During phase two exploration: Mātauranga is identified as meaningful to and accountable for all good things related to all aspects of life in Māori world, both individual and collective, cultural and social, developmental and professional, cognitive and affective, and most

prominently, both spiritual and corporal. However, the meanings are so inclusive that they seem to become elusive. Linda Smith said, “If we cannot control the definition, we cannot control meanings and the theories which lie behind those meanings” (Smith, 2015, p. 50). How is mātauranga as Māori knowledge system related to other knowledge systems outside the Māori domain, or how is it different from ‘knowledge’ in the western paradigm? This newly evolved question drove me to the next phase of research.

Phase 3: Comparative and symbolic searches

Phase 3.1: Comparative searches

Worldviews are different; words representing different worldviews are also different. Here are some observations on the differences between mātauranga as used in Māori world and knowledge as used in the western world:

- Knowledge is an individual property and an independent ‘object’ while mātauranga is a collective asset and subjectively tuned. It is forever related to, depends on, and oriented toward who we are.
- Knowledge is externally acquired mind products transmitted from outside in while mātauranga is internally brewed “heart knowledge” and “blood memory” (Holmes, 2000, p. 41) activated from inside out.
- Knowledge occurs at cognitive level, and therefore analytical, logical and rational while mātauranga involves affective aspect of knowing, and therefore vibrational, soul stirring and permeates the whole person.
- Knowledge results in skills and capacities while mātauranga surfaces prominently as passion and confidence with “fire in your belly” (Diamond, 2003, p. title).
- Knowledge is noun-based and concept-centred, and therefore informative while mātauranga is verb-based, action-gearred, relationship-directed, and therefore performative and transformative.
- Knowledge is statically-accumulated, and extends horizontally while mātauranga is organically-processed and spirit-driven, and therefore motivates and enlightens.
- Knowledge is consciously learned products, and concerns with what things *are*, while mātauranga is subconsciously acquired knowing and integrated with one’s personality, and concerns more with what things *do*.
- Knowledge is descriptive and inanimate, and therefore experiment-tested, achievement-measured and certificate-rewarded while mātauranga is metaphorical, vibrational, personalized, and therefore experience-tempered, self-realization-oriented and character-building.
- Knowledge is objective, people-independent and value-free, and therefore develops IQ and EQ to help us compete in the divided society while mātauranga is relational, socially-constructed, contextualized, and value-laden, and therefore develops SQ (Spiritual Quotient) to help us cooperate and “live undivided life in the midst of a divided world” (Palmer, 2008, p. 245).
- Knowledge acquisition is a brain-racking and painstaking work while mātauranga is a joyful “peak experience” (Maslow), and therefore “animates and educates” (Meyer, 2014, p. 392).

- Knowledge aims to differentiate and divide us, and ends up with class division and social inequality while mātauranga is oriented towards synchronising and uniting us. That is why kotahitanga (unity) is taken as one of the core organisational values of Te Wānanga o Aotearoa.
- “Knowledge is power” (Francis Bacon) while mātauranga empowers. Knowledge trains professionals while mātauranga shapes better persons.
- Knowledge enables us to know the world and conquer it while mātauranga enables us to know ourselves and relate ourselves to the world in the best possible way.

Summary

From the pragmatic meanings as used in the above contexts, we can see mātauranga is used in a much broader and deeper sense than ‘knowledge.’ It is not only power, but also the source of power. It is holistic and spirit-driven. Knowledge is one-dimensional unfinished mātauranga while mātauranga is multi-dimensional finished knowledge. That is why Māori people always start speeches with prayers, chants and songs to apply mātauranga in its full force engaging the whole person, cognitive and affective, intellectual and behavioural, rational and emotional, corporal and spiritual, and knowing and being. However, as Māori Marsden points out, “the route to Māoritanga through abstract interpretation is a dead end” (Marsden, 2003, p. 2). To animate the above analysis, a metaphorical search was used to visualise the differences, as indigenous methodology often resorts to metaphors to describe the world and the perception of the world.

Phase 3.2: Metaphorical searches

- Knowledge is a stone making one-point impact while mātauranga are far-reaching ripples with lifelong influences.
- Knowledge appears as visible waves while mātauranga is the invisible powerful wind.
- Knowledge functions as wings that lift us up while mātauranga is the bird that supplies the power and gives directions.
- Knowledge is a cloud accompanied with lightning and thunder while mātauranga is the rain that nourishes lives gently and quietly.
- Knowledge is the cold moon reflecting sunshine while mātauranga is the sun that sheds light, radiates warmth, and produces life.
- Knowledge reads like play scripts that tell stories while mātauranga is performed by the actors who animate the stories and entertain.
- Knowledge is smoke as a by-product while mātauranga is the fire that does all the work.
- Knowledge is Titanic with the largest part showing above water while mātauranga is the iceberg with the largest part below water that anchors us from being blown away.

Summary

Mātauranga is bigger than knowledge. The epistemological features of mātauranga are rooted in its indigenous ontology. “There is a divine spark in everything” (Patterson, 1992, p. 77). All the analysis boils down to one critical difference having great impact on education: knowledge informs while mātauranga transforms.

Reflections on the above three search approaches come to a disappointing conclusion using Buddha’s words: “The finger pointing to the moon is not the moo”, or Korzybski’s, “A map

is not the territory” (Korzybski, 2012). The questions that keep me going further on along my mātauranga journey are: ‘What does mātauranga mean to me, and how does it inform my work and life?’ The questions constantly connect me with the words as the products of the interviews I conducted as a part of my mātauranga project: ‘Mātauranga Māori is like water. You have to swim in it to know it’. ‘You have to do mātauranga before you know it’. These words have driven me to take a phenomenological approach to mātauranga by going “back to the things themselves” (Husserl as cited in Smith, n.d.).

Phase 4: Phenomenological action search

“A phenomenological researcher questions the thing being questioned by the question which is ‘lived’ by researcher” (Manen, 1990, p. 44). Mātauranga pursuit is a non-returnable journey. “*Kua tawhiti ke to haerenga mai, kia kore e haere tonu. He tino nui rawa ou mahi, kia kore e mahi nui tonu*” (You have come too far, not to go further. You have done too much, not to do more) (Henare, 1989). Yes, I have come too far not to go further, and I have done too much not to do more. I started learning Te Reo from 2011 at the age of 57, participated in the kapa haka competition in 2013, undertook mātauranga research projects from 2013 onwards, got involved in leading morning karakia, and start all my library inductions with Te Reo to new classes. As a result, I have been transformed, and my transformation experiences were presented and published in the organisational journal (Gong, 2012b), and at national and international conferences (Gong, 2012a).

Phenomenological search findings

Mātauranga is not merely a word, but a world that must be lived in to be known, and the outstanding feature of this world is captured in the most frequently quoted whakataukī: *He aha te mea nui o te ao? He tangata, he tangata, he tangata* (What is the most important thing in the world? It is people, it is people, and it is people). Mātauranga is not abstract, but embodied by people performing it; it is more to be experienced than searched; it is more to be felt than thought of; and it is more to be weaved into life than observed at distance. It is “a thing of the heart” (Marsden, 2003, p. 2).

Pursuing mātauranga is a spiritual journey. “The Maori are a spiritual people” (Patterson, 1992, p. 76). This accounts for the most distinctive feature of mātauranga: being transformative through its spiritual dimension. Here I can only explain what transformation means based on my own experience. Unexpectedly and miraculously, I end up becoming the target of the search. Through embracing mātauranga I find myself a stranger in a new world in which many things that I had taken for granted for the last half a century have to be redefined and reclaimed. In answering the initial question—who am I?—I am no longer worried about my Chinese identity doing Māori-related research as I am firmly convinced that I am a spiritual being first, human being second, a man third, and ethnicity is further down along the list.

How we see things depends on how high we stand. Once we lift ourselves to a higher level of being, our view changes to the effect that “nothing has changed, but everything is different” (Lin, 2010, p. Introduction). I used to think that life is in the making—‘You reap as you sow’—but my spiritual experience teaches me that life is in the taking. The way of living

my life makes all the sense of what life means to me. I learned from childhood that what we see and feel are the reflections of the outside world, but viewed from a spiritual dimension, everything I see and feel is the projection of my own vision and feeling. Reality is not what happens; our reactions to what happens are. It is the attitude that makes heaven out of hell and vice versa. My past life taught me that happiness is conditional—I was happy when happy moments came up, but my spiritual self takes happiness as the default feeling no matter what happens. Bad encounters can be turned into good lessons, and difficulties become self-empowering opportunities. The focus is always on the silver lining rather than the cloud. I always thought that love is reciprocal. *Aroha atu, aroha mai* (Give love, and love will come back); or *aroha whakatō, aroha puta mai* (Love sowed, love harvested); but the newly obtained feeling of love is nothing more than an inner expression of my being. I love not so much because the object of my love is lovable as because the only thing I can project inside out is love. Love is the only thing I react to the world with. This is becoming my reality, and this is the way I am learning to relate myself to the world. Working to make a living is now replaced by working to make a life, to practice my spiritual values, and to live a fuller life. Learning was believed as a preparation for life, but from spiritual perspective, learning itself is an ideal life. What else is better than seeing myself growing every day? It is learning Te Reo that has uplifted me to this level of being. Rangihau claims that learning the language (Te Reo) “must be a spiritual exercise, not just an intellectual exercise” (Browne, 2005, p. 14). My experience has proved it as true. For me, languages have different functions: Mandarin is my home language getting me constantly connected to my native culture; English is my work language doing everyday transactions; and Te Reo is my spiritual language enabling me to discover my new self. Mandarin comes out of my mouth in an intuitive way; English comes out of my mind in a professional way; and Te Reo comes out of my heart in an enlightening way. *Tōku reo tōku ohooho* (My language is my awakening). That is why every time I speak Te Reo I lose my voice even though my Te Reo is still at elementary level. I have no intention to raise my voice, the voice raises itself. “Even if you just know and understand the spiritual words, they alone will transform your mind” (Vallyon, 2007, p. xviii). Only the person having the same experience understand what this means.

The spiritualising mechanism of mātauranga lies in three spiritual words: *wairau* (spirituality), *aroha* (love), and *mana* (prestige). “It is *wairua*, *aroha* and *mana* that comprise the Holy Trinity of the Christian nature of man” (Ra, 2002, p. 52). *Wairua* enables me to see things in non-dichotomous way: to be great is to be little; to be noble is to be humble; to be powerful is to be gentle; and to be wise is to be simple. With *aroha*, negative things become positive: everybody is a good person I can learn something from and feel grateful to; everything is a good thing in providing me a learning occasion and I can draw pleasure from; every ordinary moment is a perfect time to get something done extraordinarily; and every problem is an opportunity in disguise. With *mana*, I am able to comprehend the incomprehensible, tolerate the intolerable, forgive the unforgivable, accept the unacceptable, surmount the insurmountable, and make the impossible possible. The ‘Holy Trinity’ are interconnected: “When the *wairua* fills the heart *mana* fills the head” (Ra, 2002, p. 10). “*Mana* means spiritual authority and power” (Marsden, 2003, p. 3).

An indigenous researcher has pointed out that “If research doesn’t change you as a person, then you haven’t done it right” (Wilson, 2008, p. 135). I do not know whether I have done

it right, but I do know that this rangahau journey has changed me. It has re-oriented the way I perceive myself:

- I am Lidu Gong, but who I am no longer matters, who I am with does.
- I am from China, but where I am from no longer matters, where I am going does.
- I am 63, but physical age no longer matters, spiritual maturity does.
- I am a librarian, but profession no longer matters, passion-driven professionalism does.
- I provide information to my patrons, but providing information no longer matters, having my patrons well informed does.
- I have three degrees, but qualification no longer matters, love-based quality does.
- I am working in a wānanga, but working in a wānanga no longer matters, having wānanga working inside me does.
- “I am because we are, and since we are, therefore I am” (Loyola, 2015). “I belong, therefore I am” (Williams, 2016).

Summary

The world is what we see ... the world itself gives itself to us, even if only with pretensions of completeness, and that we open onto the things or matters themselves with a basic perceptual faith that amounts to our immediate acceptance of the being of things. This point of departure for phenomenology is, in short, experience (Steinbock, 1997, p. 127)

There is no substitute for experience. In describing experiences, I deliberately avoid the dichotomy between objectivity and subjectivity. In expressing myself, I prefer truthfulness to ‘truth’, inner experience to ‘fact’, and interpretation of reality to ‘reality’.

Conclusion

What we gain in literature reviews is only information; what we gain from the information reflected upon and internalised is knowledge; and what we gain from the knowledge applied in effectively solving life issues is wisdom.

The real point in pursuing mātauranga is more about what to do with it rather than conceptualising what it is; it is not so much as something I am to define as something I am defined by; it is not so much as something I study on as something I am being oriented towards, drawn into, and identified with; it is not so much as something to be observed objectively as what engages me as a participant and co-creator; it makes more sense to act with it than to talk about it; and it is more relevant to ask who I am than to enquire what it can be. “Ideas are only as important as what you can do with them” (Bronfenbrenner, 1979, Foreword). Mātauranga is a new world to me: not merely the world as I see it, but the world as I am seen through it; and it is not so much as a product I eventually possess as a process that I am being possessed by—being transformed.

References

- Biletzki, A. (2014). *Ludwig Wittgenstein*. Retrieved from plato.stanford.edu:
<http://plato.stanford.edu/entries/wittgenstein/#Mea>
- Bouwsma, O. K. (1986). *Wittgenstein - conversations, 1949-1951*. Indianapolis: Hackett Publishing Company.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, Massachusetts: Harvard University Press.
- Browne, M. (2005). *Wairua and the relationship it has with learning te reo Māori within Te Ataarangi*. Hamilton: Maori Studies, Massey University.
- Diamond, P. (2003). *A fire in your belly: Māori leaders speak*. Wellington: Huia.
- Doherty, W. (2012). Ranga framework – He Raranga Kaupapa. In NZQA, *Conversations on Mātauranga Māori* (pp. 15-36). Wellington: NZQA.
- Edwards, S. (2012). Nā te Mātauranga Māori ka Ora Tonu te Ao Māori (Through Māori knowledge Te Ao Māori will resonate). In NZQA, *Conversations On Mātauranga Māori* (pp. 37-58). Wellington: NZQA.
- Gong, L. (2012a). My Te Reo transformative learning experience. *Foundation for Endangered Languages* (pp. 93-98). Auckland : The National Māori Language Institute, AUT.
- Gong, L. (2012b). My transformational journey. *Toroa-te-Nukuroa, VII*, 43-57.
- Harrington, T. A. (2010). *Māori role models*. Palmerston North: Te Kiko Charatable Trust.
- Harrington, T. A. (2012). *Māori models II*. Palmerston North: Te Kiko Charatable Trust.
- Henare, T. H. (1989). Foreword. Retrieved from
<http://www.northlanddhub.org.nz/Portals/0/Communications/Publications/ttt%20maori%20strategic%20plan%20final.pdf>
- Holmes, L. (2000). Heart knowledge, blood memory, and the voice of the land: Implications of research among Hawaiian Elders. In S. D. George J. (Ed.), *Indigenous knowledge in global contexts* (p. 282). Toronto: University of Toronto Press.
- Korzybski, A. (2012). *The map is not the territory*. Retrieved from lesswrong.com:
https://wiki.lesswrong.com/wiki/The_map_is_not_the_territory
- Landcare Research. (2015). *What is Mātauranga Māori?* Retrieved from Landcare Research:

<http://www.landcareresearch.co.nz/about/sustainability/voices/matauranga-maori/what-is-matauranga-maori>

- Lin, D. (2010). *The Tao of success : The five ancient rings of destiny*. New York: Penguin Group.
- Loyola, F. (2015). *I am because we are and, since we are, therefore I am*. Retrieved from [anglicanwitness.org](http://www.anglicanwitness.org): <http://www.anglicanwitness.org/i-am-because-we-are-and-since-we-are-therefore-i-am/>
- Manen, M. (1990). *Researching lived experience*. London: State of University of New York Press.
- Marsden, M. (2003). *The woven universe*. Wellington: Estate of Rev Maori Marsden.
- Mead, H. M. (2003). *Tikanga Māori: Living by Māori values*. Wellington: Huia Pub.
- Mead, H. M. (2012). Understanding Mātauranga Māori. In NZQA, *Conversations On Mātauranga Māori* (pp. 9-14). Wellington: NZQA.
- Meyer, M. (2014). Hawaiian epistemology. In D. &.-M. Coghlan, *The encyclopedia of action research* (pp. 391-). Los Angeles: SAGA .
- Moorfield, J. (2005). *TE AKA*. Auckland: Pearson.
- Ohia, B. (2013). Betham's legacy. *Te Wānanga o Aotearoa*. Auckland, New Zealand: Te Wānanga o Aotearoa.
- Palmer, P. (2008). *A hidden wholeness - A Journey towards an undivided life*. San Francisco: Jossey-Bass.
- Patterson, J. (1992). *Exploring Maori values*. Palmerston North: The Dunmore Press.
- Ra, M. (2002). *The right to stand tall - Conversation with the old people* . Te Kauwhata: Philip B. Billing.
- Royal, C. (2009). *Mātauranga Māori - An introduction*. Porirua: Living Universe Limited.
- Royal, C. (2012). Politics and knowledge: Kaupapa Maori and mātauranga Maori. *New Zealand Journal of Educational Studies*. 47(2): 30-39.
- Ryan, P. (1997). *The Reed dictionary of modern Māori* . Auckland: Reed Publishing.
- Sharples, P. (2016). Māori will lead New Zealand into the future. *7th Biennial International Indigenous Research Conference*. Hamilton, New Zealand.
- Smith, J. (n.d.). *Phenomenology*. Retrieved from [iep.utm.edu](http://www.iep.utm.edu/phenom/): <http://www.iep.utm.edu/phenom/>

Smith, L. (2015). Kaupapa Māori research: Some Kaupapa Māori principles. In L. T. Pahama, *Kaupapa Rangahau: A Reader – A collection of readings from the Kapapa Rangahau Workshop Series, 2nd ed.* Hamilton: Te Kotahi Research Institute.

Steinbock, A. J. (1997). Back to the things themselves. *Human Studies*, 127-135.

Vallyon, I. (2007). *Heaven & hells of the mind, vol 1.* Hamilton: Sounding-Light Publishing.

Williams, J. (2016). 21st century will be an indigenous century. *The Seventh Biennial International Indigenous Research Conference.* Hamilton, New Zealand.

Wilson, S. (2008). *Research is ceremony.* Nova Scotia, Canada: Fernwood Publishing.

L .T. Marole and Dictionary Writing: The Emergence of Lexicography in Tshivenda

Dr. Munzhedzi James Mafela
University of South Africa
mafelmj@unisa.ac.za

Abstract

*Tshivenda, one of the minority languages in South Africa, was given the status of an official language in 1994, together with the other ten languages: isiXhosa, isiZulu, isiNdebele, Sesotho, Sesotho sa Leboa, Setswana, Siswati, Xitsonga, English and Afrikaans. As with other South African indigenous languages, missionaries reduced Tshivenda to writing. Although the Berlin Missionaries were responsible for reducing the language into writing, their contribution to Tshivenda lexicography was minimal. They compiled a list of Tshivenda words and provided German equivalents, for use by the missionaries. In 1904 they produced a booklet on Tshivenda verbs entitled *Die verba des Tsivenda*. The first Muvenda who involved himself in lexicography work was L. T. Marole. Marole published a number of lexicography works, including *Phrase Book*, which is the subject of this discussion. *Phrase Book*, the first lexicography publication of the author, and the first lexicography work in Tshivenda, consists of a list of English words and phrases with their Tshivenda equivalents. The list includes words for body parts, wild animals, domestic animals, prepositions, seasons, relationships, sickness, conjunctions, verbal phrases and domestic work. The needs and interests in using dictionaries are part of the necessities and amenities of our cultural life (Hüllen, 1989). This paper aims at investigating the validity of this assertion in *Phrase Book*. Marole's presentation of lexicography aspects in *Phrase Book* will be analysed in this regard.*

Keywords: *Dictionary writing, bilingual dictionary, headword, illustrative example, lexicography, meaning, phrase book*

Introduction

The majority of the indigenous African languages in South Africa were reduced to writing by missionaries, among them the Berlin Missionaries, Swiss Missionaries, London Missionary Society, Roman Catholic Missionaries, Methodist Missionaries, etcetera. The missionaries

further established schools to teach locals to read and write so that they could access the Bible. The Berlin Missionaries were responsible for reducing spoken Tshivenda to writing. Tshivenda is one of the nine indigenous African languages of South Africa recognised as official languages in the country together with English and Afrikaans. Rev. C. F. Beuster established a missionary station at Beuster in 1872, which was responsible for recording Tshivenda. The aim of establishing the mission stations was to spread the Christian gospel. Missionaries established schools to teach the local people to read and write, which in turn gave them (the local people) an opportunity to read the Bible. Beuster and Klatt began to learn Tshivenda and developed symbols to represent the sounds (Mafela, 2005, pp. 36-37). These missionaries did not reduce spoken Tshivenda to writing only; they produced the first books that include *Die verba des Tshivenda*, which is a terminology list. When Vhenda became enlightened educationally, they began to write their own books, including dictionaries. L. T. Marole was the first Muvenda to publish a bilingual dictionary in Tshivenda entitled *Phrase Book* in 1932. This dictionary, which is the focus of the discussion, was meant for people learning Tshivenda (missionaries at that time), and who were eager to learn the indigenous languages so that they could communicate with the local people. In this regard, Mafela (2005, p. 36) states:

All over South Africa, missionaries had a problem with language communication because they did not know any African language. This was also true of Beuster and Klatt, and that hampered their mission of spreading the gospel. Communication with the local people was a fundamental activity of missionaries because without it they could not function. For missionaries to overcome this problem they had to learn an African language in the area.

Phrase Book, a 16 page long dictionary, contains terms relating to body parts, wild animals, domestic animals, prepositions, seasons of the year, relationships, sickness, conjunctions, verbal phrases and domestic work.

Dictionaries address the needs and interests of dictionary users, which are part of the necessities and amenities of our cultural life (Hüllen, 1989). Since *Phrase Book* is the first lexicography work by a Muvenda, it is worthwhile to check if it has all the features of a dictionary. This paper seeks to investigate the validity of the assertion that dictionaries address the needs and interests of dictionary users with reference to the first lexicography work in Tshivenda by L. T. Marole. This will be achieved by analysing some aspects of a dictionary in *Phrase Book*.

Writing a dictionary

Writing a dictionary is not an easy task; it involves skills and knowledge of the language. This is so because a dictionary is a reference book about words and language (Jackson, 2002, p. 21). Landau (1984, p. 2) argues: "In order to understand how to construct a dictionary, one must first appreciate both what a dictionary is and what it is not, what kind of information it is designed to convey and what it cannot." Van Sterkenburg (2003, p. 8) defines a dictionary as:

... a reference work [which] aims to record the lexicon of a language, in order to provide the user with an instrument with which he can quickly find the information he needs to produce and understand his native language. It also serves as a guardian of the purity of the language, of language standards and moral and ideological values because it makes choices, for instance in the words that are to be described.

For one to be able to address all this, a lexicographer must be trained. Some of the functions of a dictionary as suggested by Gleason Jr (1975) are to:

- be an index to the grammar
- serve as amendment to the grammar
- serve as a system of cross-reference and correlation of entries within the grammatical statement
- serve as a device to correlate several structural systems, grammar being one of them, which bear on the usage of individual items.

The main function of the dictionary is to describe the meanings because dictionaries are filled with words and their meanings (Fromkin & Rodman, 1998). However, there are many aspects, which should receive attention when a lexicographer describes the meanings of headwords. Landau (1984, p. 5) states:

A dictionary is a book that lists words in alphabetical order and describes their meanings. Modern dictionaries often include information about spelling, syllabification, pronunciation, etymology (word derivation), usage, synonyms, and grammar, and sometimes illustrations as well.

Organising the information alluded to in the above quotation needs training and the knowledge of the science of a language. One cannot describe the pronunciation of a word without a knowledge of phonetics, or describe the syllabification of a word without a knowledge of morphology and phonology. One should receive some form of training regarding the arrangement of the different parts of a dictionary and that of the headwords. For many of the first African languages, lexicographers did not receive any form of formal training in writing dictionaries. They engaged themselves in the compilation of dictionaries out of their love. However, they managed to produce products that benefitted the users.

About L. T. Marole

L. T. Marole was a teacher by profession. He was one of the first educated men under the guidance of the Swiss Missionaries. He had an interest in the education of his fellow Vhavenḁa. He was one of the Vhavenḁa pioneers who published books on different subjects. He published historical narratives, a hymnbook, a book on totems and proverbs, legends and a number of lexicography works. He was the first Muvēḁa to publish lexicography works. He established a publishing company, Marole Book Depot, which is still in operation. The book titled *Phrase Book*, his first lexicography work, was published in 1932. In 1954, he co-authored *English – Venda Vocabulary* with F. J. De Gama. This was followed by *Afrikaans – Venda: Vocabulary and Phrase Book* in 1955. *Phindulano* was

published in 1956. The second edition of his historical narrative titled *Makhulukuku* was published in 1966. In 1969, a legend titled *Mwali-Raluvhimba* was published. A reprint of his *Mitupo na Mirero (Totems and Proverbs)* was published in 1998. The ninth edition of *Nyimbo dza Pesalema* was published in 2005. He published some of these books by the publishing company he established, Marole Book Depot. All lexicography works by Marole are mono-directional bilingual dictionaries and contain two vocabularies, one for each language; their primary purpose is to help the user in his or her task of translating from one language to the other (Malone, 1975).

Unlike current lexicographers, Marole did not receive any form of formal training in lexicography. He compiled the lexicography booklets out of his limited knowledge. He did not have the facilities such as those current lexicography units, whose sole function is to produce dictionaries, have. There was no incentive for him to produce the lexicography works. He did not receive funding from the government or any private institution. In fact, lexicographers in the indigenous African languages at the time did not receive funding from the government to produce dictionaries. However, English and Afrikaans lexicographers received financial support from the government. Marole's books were printed in Morija, a town in the neighbouring country, Lesotho.

Phrase Book and the needs of users

Dictionaries differ in scope in respect of the subjects they cover (Landau, 1984). Frequent users of dictionaries are students, learners and academics. In this regard, Swanson (1975, p. 63) asserts: "They use them for different reasons. Many users look for the meaning of the word, while others will be checking on the spelling, pronunciation, morphology, etymology and even the usage of the headword." A bilingual dictionary can be useful and desirable to different target users, for example, travellers, translators and linguists (Swanson, 1975). Therefore, a dictionary should address the needs and interests of the users. Haas (1975, p. 45) comments:

The ideal bilingual dictionary would anticipate every conceivable need of the prospective user. 1. It would provide for each word or expression in the source language (SL) just the right translation in the target language. ... 3. It would contain all the inflectional, derivational, syntactic and semantic information that any user might ever need. ... 7. It would contain all necessary information about correct spellings, as well as information on alternate or commonly encountered incorrect spellings.

A dictionary should have front matter, main matter and back matter. The front matter gives attention to aspects such as pronunciation, usage, regional varieties and guide to the use of the dictionary. The back matter, on the other hand, contains information such as the lists of biographical and geographical names, irregular words and spelling guides (Landau, 1984).

Phrase Book is a bilingual dictionary with English as the source language and Tshivenda as the target language. Al-Kasimi (1983, p. 58) states: "The major task of a bilingual lexicographer is to find appropriate equivalents in the target language to the units of the

source language.” In addition to the provision of the equivalent word, a dictionary is expected to give a certain amount of information about affixation, inflection, and classification; and may include historical information, such as etymology of entry words (Malone, 1975).

Phrase Book consists of one part, i.e. the main matter. There is no style guide, which can guide users regarding how they can access lexical information, and how they can identify the grammatical information, if available. Most guides describe every part of the dictionary article: entry word, syllabication, pronunciation, inflected forms, various kinds of labels, cross-references, variants, etymologies, synonyms, and usage notes (Landau, 1984). Even if dictionary users seldom read the front matter articles, it would be good if they were added in the dictionary. Marole did not include the back matter either. The dictionary focuses on the presentation of words and phrases in the source language and their corresponding equivalents in the target language. The discussion of *Phrase Book* and the needs of users entails the following aspects: the choice of words, arrangement of headwords, finding the meaning of a headword, and the use of illustrative examples. The aspect of grammatical information will not receive attention in this discussion because Marole does not cover it in his definition of headwords.

The choice of headwords

As mentioned above, *Phrase Book* is a bilingual mono-directional dictionary, with English as the source language and Tshivenda the target language. Its target group is the non-Tshivenda-speaking people who want to learn Tshivenda vocabulary. The choice of headwords was influenced by English vocabulary. For example, the equivalent of *firmament* (Marole, 1932, p. 10) in Tshivenda is *tshibakabaka tsha ṭadulu* (Marole, 1932, p. 10). It is not clear what *tshibakabaka tsha ṭadulu* means. Guralnik (1981, p. 358) defines *firmament* as follows: “to strengthen the sky thought of as if it were a solid arch”. It would seem Marole was influenced by the English definition when he coined this equivalent. The same holds for the headword *monkeynut* (Marole, 1932, p. 10), whose Tshivenda equivalent is *n̄duhu*. *N̄duhu* is part of Tshivenda vocabulary, but its English equivalent is *peanuts*. However, the type of peanuts called *monkeynuts* are foreign to Tshivenda. Marole has included foreign words that need to be provided with Tshivenda equivalents. His choice of headwords was therefore influenced by the source language and not dictated by the target language which is Tshivenda. Missionaries and non-speakers of Tshivenda would expect that a lexicographer could have selected words that reflect on Vhenda culture and their environment because they want to learn the language. However, general users, including Vhenda speakers, would appreciate the inclusion of English words that do not have translation equivalents in Tshivenda so that the lexicographer could coin the necessary equivalents.

Arrangement of headwords

Dictionary users need to access the word they are looking for as quickly as they can. This is determined by the arrangement of headwords. The quickest way to find a word in a dictionary is when the headwords are arranged according to the letters of the alphabet.

Landau (1984) states that dictionaries usually alphabetise letter by letter rather than word by word.

Marole did not arrange the words according to the letters of the alphabet, but according to subjects. Arranging headwords by subjects can be difficult for a dictionary user who is looking for a word because if one cannot identify the group in which the word is found, he or she will end up searching for the word in all the groups, leading to time wasted and even failure to find the word. For example, in *Phrase Book*, Marole grouped headwords according to parts of the body (lips, mouth, stomach, heart); wild animals (elephant, giraffe, zebra, lizard, baboon); domestic animals (cow, bull, goat, pig, mule, hen); relationships (parents, mother, aunt, cousin, bride, brother-in-law); seasons (spring, autumn, seed, vegetable, summer, cabbage); sickness (blind, leper, smallpox, headache, diarrhoea); conjunctions (and, but, or, however), verbal phrases (come here, sit down, run, come in); house work (open the door, light the fire, cover the pot, lay the cloth, fry the meat); and interrogative pronouns (Who says so? What do you want? What tree is this?). If one is looking for the meaning of the headword *tongue*, the user will have to look for it under *parts of the body*.

It is equally difficult to locate the headword in a group because even here, the headwords are not arranged according to the letters of alphabet; they are haphazardly arranged. We can take the first five headwords in the subject *parts of the body*, for example:

Head	<i>Ṫhoho</i>
Hair	<i>Mavhudzi</i>
Skull	<i>Dethe ḷa ṫhoho</i>
Brain	<i>Vhuluvhi</i>
Ears	<i>Nḡevhe</i> (Marole, 1932, p. 3)

Arrangement by letters of the alphabet was not followed in the above examples. The list begins with words whose first letter is *H*, followed by the word whose first letter is *S*, and those with letters *B* and *E*. Even in words whose first letter is *H*, Marole should have put *Hair* first, then followed by *Head*, because the first letter following the letter *H* in *hair* is *a*. This shows how difficult it was to find the intended word during the early writing of dictionaries among the Vhavenda. Users can find the dictionary user-friendly if the headwords have been arranged according to the letters of alphabet.

Finding the meaning of a word

The main purpose of using a dictionary is to find the meaning of words. Word meaning involves the lexical meaning that a particular word contributes, in and of itself, to the understanding of an utterance (Key, 1995). In a bilingual dictionary, the purpose is to find both the target language equivalent of the headword and sometimes its meaning. According to Al-Kasimi (1983, p. 60), "The translations of entry words in a bilingual dictionary are usually of two types: (a) translational equivalents, and (b) explanatory equivalents." Al-Kasimi (1983) defines translational equivalent as a lexical unit which can be immediately inserted into a sentence in the target language, and an explanatory equivalent as one which cannot be always inserted into a sentence in the target language.

Phrase Book provides users with the target language equivalents, and they are translation equivalents. The lexicographer does not explain the meaning of the headword. It would seem the lexicographer assumes that the users are aware of the meaning of the source language's word. From this assumption, there is no need to look for the meaning. What Marole did was to address the problem of equivalents. For example:

Elephant	<i>Nḡou</i>
Lion	<i>Nḡau</i>
Leopard	<i>Nngwe</i> (1932, p. 5)

The definition of the headword here is brief, that is, only one aspect of the definition has been provided—the equivalent in the target language. Although the dictionary provides the equivalents of the source language words, users learn very little if the definition does not cater for aspects such as grammatical information. Jackson (1985, p. 53) notes: "Grammar is concerned with the general rules affecting the classes of items in a language." Grammatical information is more essential for the person who is trying to speak or understand a foreign language than for the native speaker (Landau, 1984, p. 88). In addition to the equivalent, readers would like to know grammatical information such as the spelling of the word, the noun class of the word, the syntactic and semantic information. Fromkin and Rodman (1998, p. 14) note: "To understand the nature of a language we must understand the nature of this internalized, unconscious set of rules, which is part of every grammar of every language." Al-Kasimi (1983, p. 50) states that a bilingual dictionary for production should include all necessary grammatical information about the target language for two reasons: (a) to enable the foreign learner to produce adequate sentences in the target language, and (b) to provide the foreign learner with all the information they need without referring them to handbooks of grammar.

Grammatical information is not included in *Phrase Book*. African languages are characterised by classes. *Phrase Book*, as a lexicography work in one of the African languages, should have included matters pertaining to the members of classes (and sub-classes) to which a lexical item belongs (Al-Kasimi, 1983). Users expect a dictionary to indicate the part of speech to which an entry word belongs, for example: the noun, verb, adjective, etcetera.

At the time of the publication of *Phrase Book*, it is assumed that users were not interested in all the above, but to know the equivalent in the target language. However, they could learn the pronunciation of words, for example, which could help them to communicate with the target language speakers. Pronunciation is an essential part of the linguistic description. Learners of the language must know how to pronounce each entry word. In this regard, Wells (1985, p. 45) has this to say: "The purpose served by pronunciation indication is much the same in monolingual as in bilingual dictionaries: to advise the user who is unsure of the spoken form of a word by recommending a suitable pronunciation for it."

Illustrative examples

Illustrative examples are important in a dictionary. An illustrative example is any phrase or sentence that illustrates the use of the item defined or translated (Al-Kasimi, 1983, p. 88). Cowie (1989, p. 55) cites Fowler and Fowler who identified two major functions of usage, namely, that of clarifying a sense and distinguishing between related senses. In line with the above definitions, Dalgish (1975, p. 335) states: "Illustrative examples are example sentences that follow the definition. They are useful because they provide extra denotative and connotative information, and can convey or reinforce grammatical information by exemplifying its behavior."

Marole did not use illustrative examples to bring clarity on the meaning of headwords. Instead, he provided sentences in Tshivenda, in many instances with a meaning not related to words in the subject. These usage examples are provided at the end of each subject. For example, at the end of the subject *wild animals*, Marole provides the following sentences:

We have ploughed for ourselves - *Ro ḑilimela riṅe vhane*
You have been enjoying yourselves – *No ḑitakadza inwi vhane*
I am used to walking – *Ndo ḑowela u tshimbila* (1932, p. 6)

Marole brought in illustrative examples to train learners of Tshivenda about sentence structure. He provided the English sentence that is followed by its Tshivenda equivalent. However, the main words used in the sentence do not refer to the headwords presented in the subject. No word in *Ro ḑilimela riṅe vhane* refers to wild animals. The words *ro*, *ḑilimela*, *riṅe*, and *vhane* do not refer to wild animals. It is hard to believe that learners of Tshivenda will understand the sentence structure in Tshivenda, unless the sentences contain the headwords defined. Sentence examples used by Marole are not related to the subject of the grouping. Contrary to Malone (1983)'s assertion, Marole does not use illustrative examples above to prove that a word exists, to illustrate the meaning of a word, and to illustrate the grammatical behaviour of the word described.

Discussion

Missionaries in South Africa were responsible for teaching the local people to read and write in their languages. However, they did not provide them with formal training regarding the writing of lexicography work, Marole included. He did not receive formal training regarding the writing of dictionaries. Neither did he receive financial support to conduct research and compile dictionaries. He ventured into dictionary writing out of his own will. The mere fact that he had the knowledge and science of Tshivenda, that was motivation enough for him to be involved in lexicography.

As indicated above, Marole did not receive formal training regarding the arrangement of the different parts of a dictionary and that of the headwords. It is not surprising to find that the front matter and the back matter are missing in the dictionary. Further, the headwords in *Phrase Book* do not have a specific arrangement; the arrangement is unsystematic. This makes it difficult for dictionary users to find specific words quickly, especially if the

dictionary has many entries. A good systematic and easy way of arranging headwords is that of arranging headwords according to letters of alphabet. Fortunately, *Phrase Book* is not a huge dictionary, but thin, and consisting of sixteen pages. Readers could still find the words that they are looking up.

Whereas the source language in *Phrase Book* is English, the target language is Tshivenda. Some of the words Marole included in his headword list do not reflect on the Tshivenda culture and environment. This led to the provision of wrong equivalents in some of them. It shows that, in his choice of words, Marole was not influenced by the Tshivenda culture and environment. However, learners of the language expect all Tshivenda equivalents of the English words to be correct.

Finding the meaning in *Phrase Book* is not difficult, especially if one knows the meaning in the source language, in this case English. The lexicographer assumed that non-speakers of Tshivenda know the meaning of English words. In all cases, Marole provides the equivalent of the source language word or phrase. Nowhere in the whole dictionary does Marole provide the description of other aspects of the entry that make the meaning clear. Grammatical aspects such as pronunciation, morphological structure, etymology, illustrative examples, etcetera, are not included in the definition of the headword. The meaning of words is part of linguistic knowledge and is therefore a part of the grammar (Fromkin & Rodman, 1998). Jackson (1985, p. 53) states:

Arguably, Grammar and Dictionary are complementary parts of the overall description of a language. This applies whether the aim of the description is the general linguistic one of providing a comprehensive account of a language, or whether the aim is an applied one of serving the needs of an identifiable group of language users.

Nevertheless, some of the grammatical information can be learnt when the learner communicates with the target language speakers. For those who solely depend on the dictionary to learn a language, they will find it difficult to understand the meaning of the word because of the absence of grammatical information. Learning a language means to know the pronunciation of words, their morphological structure, the etymology of some of unfamiliar words, illustrative examples for those words which have more than one meaning, etcetera.

Illustrative examples in the form of sentences provided at the end of each grouping of headwords in *Phrase Book* do not assist the learner because the sentences do not relate to the headwords in the group. Tshivenda learners would have benefitted much if the illustrative examples contained some of the headwords listed in the group.

Notwithstanding the shortcomings stated above, *Phrase Book* is a real contribution to Tshivenda lexicography because it is the first in the language. During the time of its publication, it was valuable to both Tshivenda speakers and non-speakers of Tshivenda learning Tshivenda. The lexicography work is still valuable because it contains information that the current generation among the Vhenda is not familiar with, for example, words such as *mavhuyahaya* (autumn), *phanzi* (accident), *nayo* (foot) and *tshifafa* (epilepsy). Such

terminology is not included in many of the current Tshivenda dictionaries. Whereas *Phrase Book* afforded Tshivenda speakers with an opportunity to learn English vocabulary, non-Tshivenda speakers learnt Tshivenda vocabulary and culture.

Conclusion

Although *Phrase Book* is lacking in many aspects of dictionary writing, including spelling errors, it was necessary at the time of its publication, because non-Tshivenda speakers—specifically missionaries—were only interested in the Tshivenda equivalents. Learners of Tshivenda during the early stages of the reduction of the spoken language into writing knew very little about the Tshivenda equivalents of the English terms. Therefore, the Tshivenda equivalents were meant to help missionaries to communicate effectively with Vhavenda.

Ten Hacken (2009, p. 414) cites Hausmann (1985) who defines a dictionary as:

... a collection of lexical units (mainly words), presented by means of a particular medium and giving particular information for the benefit of a particular user. The information is ordered in such a way that fast retrieval of individual details is possible.

From the above quotation, two questions can arise regarding the value of *Phrase Book*, namely, 1. Does *Phrase Book* benefit the users? 2. Is the information in *Phrase Book* ordered in such a way that fast retrieval of individual details is possible? In response to the first question, *Phrase Book*, as shown above, benefitted the users then and is still benefitting them presently. In addition to knowing the Tshivenda equivalents of the English words, users, especially non-speakers of Tshivenda, get to know relationships in Tshivenda culture, house work among the Vhavenda, animals with which Vhavenda live, etcetera. Although Marole did not order the headwords according to the letters of alphabet, the retrieval of individual details is possible because the dictionary consists of few pages, that is, 16 pages, even if this will be slow.

Even if Marole was not a trained lexicographer, he had the necessary skills and knowledge of the languages concerned, which he used successfully to produce the needed first lexicography work in Tshivenda. The publication of *Phrase Book* is considered a good start for lexicography work among the Vhavenda.

References

Al-Kasimi, A. M. (1983). *Linguistics and bilingual dictionaries*. Leiden, The Netherlands: E.J. Brill.

Cowie, A. P. (1989). The language of examples in English learners' dictionaries. In G. James, (Ed.). *Lexicographers and their works*. Exeter, England: University of Exeter.

Dalgish, G. M. (1995). Learners' dictionaries: Keeping the learner in mind. In B. B. Kachru & H. Kahane (Eds.), *Cultures, ideologies and the dictionary: Studies in honor of Ladislav Zgusta* (pp. 329-338). Tübingen, Germany: Max Niemeyer Verlag GmbH & Co.

Fromkin, V., & Rodman, R. (1998). *An introduction to language, 6th Edition*. Fort Worth, United States of America: Harcourt Brace College Publisher.

Gleason, H. A. Jr. (1975). The relation of lexicon and grammar. In F. W. Householder & S. Saporta (Eds.), *Problems in lexicography* (pp. 85-102). Bloomington, United States of America: Indiana University Press.

Guralnik, D. B. (Ed.). (1981). *Webster's new world dictionary of the American language: Student's edition*. Englewood Cliffs, New Jersey, United States of America: Simon and Schuster.

Haas, M. R. (1975). What belongs in the bilingual dictionary? In F. W. Householder & S. Saporta, (Eds.), *Problems in lexicography* (pp. 45-50). Bloomington, United States of America: Indiana University.

Hüllen, W. (1989). In the beginning was the gloss: Remarks on the historical emergence of lexicographical paradigms. In G. James (Ed.), *Lexicographers and their works*. Exeter, England: University of Exeter.

Jackson, H. (1985). Grammar in the dictionary. In R. Ilson (Ed.), *Dictionaries, lexicographers and language learning* (pp. 53-59). Oxford, England: Pergamon Press.

Jackson, H. (2002). *Lexicography: An introduction*. London, England: Routledge.

Key, M. R. (1995). Meaning as derived from word formation in South American Indian Languages. In B. B. Kachru & H. Kahane (Eds.), *Cultures, ideologies and the dictionary: Studies in honor of Ladislav Zgusta* (pp. 329-338). Tübingen, Germany: Max Niemeyer Verlag GmbH & Co.

Landau, S. I. (1984). *Dictionaries: The art and craft of lexicography*. New York, United States of America: The Scribner Press.

Mafela, M. J. (2005). *Tshivenda literature: A historical sketch with special reference to its bibliography*. Pretoria, South Africa: Khande Publishers.

Malone, K. (1975). Structural linguistics and bilingual dictionaries. In F. W. Householder, & S. Saporta (Eds.), *Problems in lexicography* (pp. 111-118). Bloomington, United States of America: Indiana University.

Marole, L. T. (1932). *Phrase book*. Sibasa, South Africa: Marole Book Depot.

Swanson, D. C. (1975). The selection of entries for a bilingual dictionary. In F. W. Householder & S. Saporta (Eds.), *Problems in lexicography* (pp. 63-77). Bloomington, United States of America: Indiana University.

Ten Hacken, P. (2009). What is a dictionary? A view from Chomskyan Linguistics. *International Journal of Lexicography*, 22(4): 399-421.

Van Sterkenburg, P. (2003). 'The' dictionary: Definition and history. In P. van Sterkenburg, (Ed.), *A practical guide to lexicography* (pp. 83-93). Amsterdam, The Netherlands: John Benjamins Publishing Company.

Wells, J. C. (1985). English pronunciation and its dictionary presentation. In R. Ilson (Ed.), *Dictionaries, lexicographers and language learning* (pp.45-51). Oxford, England: Pergamon Press.

A Reflection on the Definition of Lexical Entries in the *English-isiZulu dictionary for learners*

Professor Cynthia Danisile Ntuli
University of South Africa
ntulicd@unisa.ac.za

Professor Nina Mollema
University of South Africa
mollen@unisa.ac.za

Abstract

The writing and publishing of children's or learners' dictionaries especially in one of the indigenous South African languages is a genre that has been neglected by the majority of lexicographers and publishers. Following the Pan South African Language Board's (PanSALB) vision of promoting multilingualism in South Africa by the development and equal use of all official languages, the authors of this article believed that the writing and publishing of young and novice learners' dictionaries in an indigenous African language would advance this goal. The need for a learners' dictionary was especially noticeable during the teaching of a Short Course in Basic Communication in isiZulu. Research conducted here revealed that the lexicographic user needs were not provided for as the dictionaries available to these learners were cumbersome and confusing. All learners of a first, second or third language should have access to an uncomplicated, user-friendly dictionary in order to master their acquisition of language. With this aim in mind, the authors compiled an English/isiZulu dictionary of about 3000 lexical items containing illustrative material, cultural explanations and pronunciation guidance. The meaning descriptions of the selected contemporary words are straightforward and comprehensible, and applied in plain sentences taken from everyday conversations which bestow upon the user the opportunity to gain a more practical vocabulary. The intended target users of the dictionary are children and second-language learners acquiring the isiZulu vocabulary as a communicative tool. This research intends to consider the collection of the corpora, and analyse the definition of entries so as to determine the efficacy and quality of the information contained in the dictionary. Finally, the article proposes that the compilation of specific language purpose dictionaries will not only contribute to the acquisition of language, but also the development of indigenous

African languages in general.

Keywords: *acquisition of language, children's dictionaries, indigenous South African languages, isiZulu, lexical entries, multilingualism, second-language learners*

1. Introduction

The writing and publishing of children's and second-language learners' dictionaries especially in one of the indigenous South African languages is a field that has for a long time been neglected by terminographers or specialized lexicographers. Following the Pan South African Language Board's (PanSALB) vision of promoting indigenous African languages and multilingualism in South Africa by the development and equal use of all eleven official South African languages, the authors of this article believed that the writing and publishing of children's and second-language learners' language dictionaries in an indigenous African language will advance this goal. Language rights are affirmed in section 29(2) of the *Constitution of the Republic of South Africa, 1996*, which provides that every learner has the right to receive a basic education in the language of his or her choice, where this is reasonably practicable. The current education policy as regards language usage in South African schools promotes the use of mother-tongue instruction in the first three years of primary school (that is, from Grade 1 to Grade 3). These first three years in the foundation phase should provide learners with an adequate level of language proficiency in the indigenous African language mother-tongue, as from Grade 4 these scholars are taught in either English or Afrikaans. It is suggested that a basic learners' dictionary for the foundation phase of elementary schooling will not only assist these beginner learners in developing and strengthening their mother-tongue as the language of learning and teaching, but will also strengthen their knowledge of elementary English in order to facilitate the transition to this language in Grade 4, as recommended by the current curriculum and assessment policy statements. Furthermore, the *Language-in-Education Policy 1997* (adopted in accordance with the *National Education Policy Act 27 of 1996*) stipulates that all children should learn more than one language at school in order to promote multilingualism in the country. It has been suggested by the South African Government that learners in the lower grades, especially non-African learners, must be exposed to the indigenous African languages. In this regard, it is anticipated that the dictionary will also play a significant role in assisting these learners in their acquisition of isiZulu and English.

The principle proposed in this article is that ideally all learners should start using dictionaries written in the indigenous languages (whether a monolingual isiZulu dictionary or an English-isiZulu dictionary) at preschools, a practice which should continue both at lower and higher primary schools. It is submitted that English-isiZulu dictionaries for young learners can play a major role in the educational needs for children, second-language learners as well for anyone who would like to acquire a language other than their own language in a multicultural society such as South Africa. This objective is affirmed by Thorndike (1935, p. 1) who regards the main function of dictionaries as accomplishing a significant role in language acquisition and learning by children. However, such a dictionary performs a far more important function as well, according to Béjoint (2000, pp. 137-138) who states that:

...dictionaries occupy a very special position in all the societies that produce them. They are not only tools for more effective linguistic communication, but also quasi-magical instruments for the improvement of the individual, means to gain access to the dominant culture [...] The emblematic power of the ... dictionary is so strong, so real in a way, that the dictionary is felt to be necessary to any nation that wants to be recognized as an independent entity.

This article provides background information to the compilation of the *English-isiZulu dictionary for learners*, focusing particularly on the lexical entries in the dictionary, that is, the paraphrasing of the meaning of these entries, their translation equivalents, examples of use and the translation of such examples. The reasons for the establishment of the dictionary will first be discussed, where after an examination of the dictionary itself will follow. In this discussion, the terminological process of corpora selection and description will be explained.

2. Why compile a learners' dictionary in English and isiZulu?

For many years in the majority of South African black schools, children from different African indigenous languages from lower to higher grades did not have the opportunity of enjoying the comfort of using a children's dictionary or even a young learners' bilingual dictionary in their own languages. One cannot remember ever seeing children using a picture dictionary, children's dictionary or learners' dictionaries written in isiZulu, or in any other South African indigenous African language. This was mainly due to limited resources and expertise as a result of historical policies. As in many other countries in Africa, South Africa primarily relied on and developed the former colonial minority languages to the detriment of the indigenous African languages (Chabata, 2013, p. 51). As such, the first reason for compiling a learners' dictionary in isiZulu is consequently to bridge the gap left by previous injustices. There is a dire need for such a dictionary in African languages.

Young learners in African schools did not previously have the pleasure of reading age-appropriate children's story books and a relevant children's dictionary that would assist them in learning vocabulary. There was consequently no culture of dictionary use established amongst African children. Over the years, dictionaries in isiZulu have been published, but all of these dictionaries have adult readers as their target audience. Two prominent dictionaries here are, for example, the *Zulu-English Dictionary* (1953) written by C.M. Doke and B.W. Vilakazi, and S. Nyembezi's *Isichazimazwi Sanamuhla Nangomuso (Dictionary for today and the future)* (1992). These dictionaries are for adult users, as the type or font size is small, the format is very dense, and the dictionaries difficult to consult or use, mainly because the lemmas in the dictionaries consist of only the stem of a word. As isiZulu is written in a conjunctive writing style where relatively short linguistic words are joined together to form long orthographic words with complex morphological structures, it is quite difficult for second language- and young learners to identify the stem of the word in a dictionary:

Whereas dictionaries making use of a left-expanded lemmatization strategy undoubtedly make it easier for the user to ascertain what the full (orthographical) form is of, in particular, the noun, words still need to be found under their stems - a process which entails a high level of grammatical and morphological knowledge and skills on the part of the user. (Gouws et al., 2013, p. 921).

The recently published *Oxford school dictionary/Isichamazwi Sesikole; IsiZulu-IsiNgesi/English-Zulu* (2015) is an improvement on the older publications, as it is the only text which may be utilised for children. The authors of this isiZulu-English dictionary regard their product as a new resource for children who speak the nation's most common African language and most widely-spoken home language, that is, isiZulu. However, as the target users of this dictionary are learners in Grades 4-9, this dictionary is still not yet entirely accessible for younger children and new learners of the language. The dictionary compiled by the authors of this article will assist both young children and second-language learners in order to enable them to converse with one another, compare the vocabulary and meaning of words and translate from the one language into the other. This action will indeed reflect that bilingual dictionaries, be it an English-isiZulu dictionary or an isiZulu-English dictionary, can help break down language barriers and promote cross-cultural understanding in South Africa as Smith (2010, p. 1) notes:

South Africa has 11 official languages and this diversity poses questions for education. Many children use Zulu at home, especially in rural areas, but are often taught in English at school, putting them at a potential disadvantage. Vukile McKenzie, a radio personality and founder of the Khanyisa Development Trust, which works to enhance education in rural schools in Kwazulu-Natal, said: "The learner in South Africa not only faces challenges of learning to read, think and write, but quite possibly to communicate, understand and influence in a language other than the one his or her parents, or significant adults use. An educational tool such as this dictionary – and other bilingual or multilingual dictionaries for that matter – equips children learning both isiZulu and English to access one another in a meaningful way."

Except for young African children, an English-isiZulu dictionary is needed for new learners of a second- or third African language. These learners, whether children or adults, should have access to an easy-to-use dictionary in order to effectively master their acquisition of the new language.

3. The English-isiZulu dictionary for learners

Working from the basis that "dictionaries should be designed with a special set of users in mind" (Householder & Saporta, 1962, p. 279), the *English-isiZulu dictionary for learners* was created especially for the lexicographic needs of prospective beginner learners of the isiZulu language. While a dictionary is regarded as a "repository of meanings of words" (Lew, 2010, p. 290), or a "book that contains a ... list of words in alphabetical order with the meanings

explained or written in another language, or a similar product for use on a computer” (McIntosh, 2013, p. 388), a children’s dictionary is differentiated from a general dictionary as follows:

A DICTIONARY aimed at children. While the transition between the dictionary for younger children and the SCHOOL DICTIONARY is fluid, the former is less bound by the conventions of the traditional, fully fledged GENERAL DICTIONARY than the latter. It is limited on a BASIC VOCABULARY and uses illustrations and ‘stories’ - often humorous - rather than formal definitions, to explain the meanings of the (predominantly concrete) words. (Hartman & James, 1998, p. 20)

With the above explanations and aims in mind, the *English-isiZulu dictionary for learners* was compiled aimed at the beginner learner of isiZulu; and also at the not-so-advanced learner or second-language learner who finds the larger dictionaries too complex and extensive for his or her specific requirements. The language of the dictionary is aimed at this level of expertise and focuses deliberately on vocabulary surrounding children and beginner learners on this specific level. As such, most of the words listed in the dictionary are regarded as those usually learned in the first years of language acquisition, and the lexical items are defined or described at the level of these target users.

Language is culture bound; therefore the dictionary necessarily also includes cultural explanations. Where possible, cultural explanations are accompanied with colourful illustrations to enhance the comprehensibility of the particular cultural term. The amount of encyclopaedic information in the dictionary was limited to 3000 lemmas in order not to encumber the young and novice learners who are the intended users of the bilingual terminological dictionary. As the most important objectives of the dictionary are to augment the acquisition of the mother-tongue in isiZulu children, and to enable basic communication amongst non-Zulu speaking beginner learners, standardised isiZulu is used as the prime language. Regional dialects, different variations or registers of the language are not provided. Similarly, the entries do not indicate parts of speech or give morphological information, except to indicate the singular and plural form in nouns. The Introduction though contains a background synopsis on the syntax and morphology of the isiZulu language. The standardized language utilised in the dictionary includes both spoken as well as written forms, which could be applied in both formal and informal communicative situations. Archaic or obsolete lemmas were not included in the lemma list as these terms do not contribute to the acquisition or transmission of the language.

3.1 Creating the English-isiZulu word lists and illustrative sentences

The terminographical process in compiling the English-isiZulu dictionary consisted of first collecting a corpus of carefully-selected words used for language acquisition and basic communication in isiZulu. These basic terms were listed in English as the source language, and then translated into the target language of isiZulu for a mono-directional English-isiZulu dictionary. Every translated entry was thoroughly considered to ensure that the most appropriate lemma was selected to represent the English term, and vice versa. This was

especially necessary for some isiZulu words have grown out of specific cultural contexts where the connotation of the terms needed to be understood. All the terms were provided with fairly simple illustrative or example sentences in both languages representative of how the words should or could be used in context in full sentences. The aim was to keep the article length of each illustrative sentence consistently similar and concise, but adequately informative. The sample sentence strives to make the meaning of the lemma clearer. These sentences show the learners in which way the words are really used, and also assist with translation from the one language to the other, as seen in the sample entries provided below:

alive	<i>-phila</i>	Us aphila ugogo wakho na? (Is your granny still alive?)
all	<i>-nke</i>	Bon ke abantwana bathanda ukudlala. (All children like to play.)
almost	<i>-cishe</i>	U cishe walunywa yizinja. (He was almost bitten by dogs.)
all right	<i>kulungile</i>	Kulungile , unгахamba manje. (It's all right, you can go now.)
alone	<i>-dwa</i>	Udlala yed wa ngoba akanaye umngane. (She plays alone because she doesn't have a friend).
also	<i>futhi</i>	Unenja futhi unekati . (He has a dog, and he also has a cat.)
always	<i>njalo</i>	Ugogo ugqoka izibuko njalo nje. (Grandmother always wears spectacles.)

The dictionary is thus more than the ordinary word glossaries—as mentioned above, the contemporary words listed in the dictionary are applied in user-friendly sentences taken from everyday conversations which bestow upon the user the opportunity to gain a more practical vocabulary. This vocabulary also includes selected terminologies of specialised or technical subject fields such as computer and other technological jargon, literary and cultural terms, amongst others. These specialised language terms were selected as they already form part of the vocabularies of the target users of the dictionary, and are consequently necessary for communication. Additional information is also provided in the Appendix, for example, isiZulu abbreviations, days of the week and months in isiZulu, isiZulu numbers, national holidays, name of provinces and of all various government departments are presented in the isiZulu language. As such, this dictionary is specifically compiled to fulfil the needs of any beginner or young learner of isiZulu, the needs of anyone who wishes to learn the language as well as of those isiZulu speakers who require a basic English vocabulary builder with isiZulu synonyms.

The dictionary further provides in the Introduction a user-guide to explain the lay-out of the dictionary as well as directions on the use of the dictionary. A brief background to isiZulu history and culture is also provided. Furthermore, a key to the pronunciation of the speech sounds of isiZulu are given. For example, in the isiZulu word *-cela* (ask), a click sound **ǀ** appears. In order to pronounce the **ǀ** click, users are instructed to put the tip of their tongues against their upper front teeth and gum. They are then told to suck the air into their mouths

as they depress the centre of the tongue and release the tip of their tongues drawing it slightly back. In order to make this sound more recognisable, dictionary users are informed that this click almost sounds like the English tsk, tsk sound (a sound of sympathy or disapproval). Illustrations of the position of the mouth and tongue in the particular sound are also provided where possible.

3.2 Description of lexical entries in the *English-isiZulu dictionary*

The words in the dictionary are ordered alphabetically by a main entry with a double structure, which according to Van Sterkenburg (2003, p. 6) is the micro structure and the macro structure:

The microstructure is the information given about each word in the macrostructure. That information is organised systematically into easily distinguishable smaller and larger sections per word.

Each translation equivalent is clearly and accurately indicated first in English and then in isiZulu, using a limited but understandable vocabulary. Almost all the words used in the illustrative sentences are also listed in the dictionary for easy cross-referencing. Illustrations are sometimes given to enhance the meaning of the word for better comprehension. For example, in the example listed below the English noun “baby” and its plural “babies” is followed by the isiZulu singular and plural for the word (indicated by the singular prefix *u-* and plural prefix *izin-* before the root or stem *-sana*). The isiZulu word is then used in a sentence followed by an English translation of the sentence. An illustration is given to assist in the memorising of the word by the learners.

baby/babies *usana/izinsana*

Usana luyadla. (The baby is eating.)



As seen from the example above, the isiZulu word lists are printed in italics for quick

reference. In each illustrative sentence provided, the isiZulu word is printed in bold. This will enable the user to apprehend at a glance how and where the specific word is applied in the sentence. The remainder of the English and isiZulu words are all in the normal type of print. As this is a dictionary for young learners and second-language learners, there are no parts-of-speech labels for lemmas in the entries. More advanced learners may infer these categories from the contexts of the sample sentences provided.

The example provided above further demonstrates that compilers of traditional bilingual dictionaries in isiZulu may experience difficulties in ordering the lexical entries in this particular language as the roots of nouns and verb stems must occur with productive derivational prefixes. It is particularly these complications that the *English-isiZulu dictionary for learners* has attempted to eliminate. As isiZulu is an agglutinating language, the morphological process entails the adding of different prefixes and suffixes to the root of a word which also results in the changing of the meaning of the specific word. African languages are furthermore based on a noun class system which relies on concordial agreement between the subject and the predicates (verbs). The noun class system in isiZulu consists of 15 classes where the even number represents the plural form of the uneven number. The only exceptions are classes 14 and 15 which do not have any plural form (see Table 1).

Table 1: The noun class system in isiZulu

NO.	CLASS PREFIX	EXAMPLE
1.	umu-	<u>umuntu</u> (a person)
1a.	u-	<u>ugogo</u> (grandmother)
2.	aba-	<u>abantu</u> (people)
2a.	o-	<u>ogogo</u> (grandmothers)
3.	umu-	<u>umuthi</u> (tree)
4.	imi-	<u>imithi</u> (trees)
5.	ili-	<u>ilizwe</u> (country)
6.	ama-	<u>amazwe</u> (countries)
7.	isi-	<u>isihlalo</u> (chair)
8.	izi-	<u>izihlalo</u> (chairs)
9.	in-/im-	<u>inja</u> (dog)
10.	izin-/izim-	<u>izinja</u> (dogs)
11.	ulu-	<u>ufudu</u> (tortoise)
10.	izin-/izim-	<u>izimfudu</u> (tortoises)
14.	ubu-	<u>ubuso</u> (face)
15.	uku-	<u>ukudla</u> (food)
16.	pha-	<u>phandle</u> (outside)
17.	uku-	<u>ukunxele</u> (left hand)

It is evident that isiZulu nouns can be divided into groups or classes according to the prefixes they start with. Prefixes can further be divided into a pre-prefix and prefix, e.g. in the

singular form umuntu (person), the pre-prefix is u- and the prefix mu-, and in its plural form abantu (people) is identified by the pre-prefix a- and prefix ba-. This is important as these prefixes are used in concordial agreement as object- and subject pronouns. These pronouns are furthermore not gender-specific, which makes it difficult for a learner of isiZulu who has to look at the context in which the word is used in order to deduce the gender of the subject class:

Ufundisa abafundi. (She/he is teaching the learners.)

This situation where a single word in a source language such as English may have more than one pronoun or concord as equivalent in the target language of isiZulu, is known as grammatical divergence (Prinsloo & Gouws, 2006, p. 186):

The situation is brought about by the complicated noun class system, which is characteristic of the African languages. Nouns denoting the third person in African languages are subdivided into different noun classes and each noun class has its own set of concords and pronouns. This simply means that a single word in English such as 'he, she, it, they' [...] can easily have up to 15 different translation equivalents in an African language.

It is difficult to translate these terms as the equivalents "are neither target language synonyms that can substitute each other in a given context nor target language items representing different polysemous senses of the source language item" (Prinsloo & Gouws, 2006, p. 188). The only manner in which the beginner learner can differentiate between the various translation equivalents is if the word is used in a co-text entry which clearly illustrates the particular form of the concord or pronoun in the source- as well as the target language. In other words, an example sentence which presents the use of a given word should be compiled in such a way that the intended target reader thereof can clearly and unambiguously identify the subject of the pronoun or concord. The compilers of this dictionary has attempted to accomplish this objective with each illustrative example containing a concord or pronoun by placing antecedents referring to the specific pronoun or concord in the sentence. It is hoped that each lemma and its translation equivalent together with the illustrative sentence will suffice both source and target language users.

As seen with the examples provided above, the singular as well as the plural form are supplied with each noun in the dictionary; e.g. umuntu/abantu. The singular and plural prefixes are underlined for instant recognition. When searching for an isiZulu word in older bilingual dictionaries, it is the stem (the part that is not underlined) where under one looks for the meaning of the word. The authors of this dictionary for young and new learners however decided that the entries in isiZulu will be best ordered by adding the prefixes in the case of common noun stems, and in the case of verbs, providing the verb stems only. Verb stems appear in natural language use as commands, which is a base verb in the present simple indicative frequently used as building blocks in language acquisition.

Verbs are very flexible in isiZulu as the meaning of the verbs may be changed through the use of affixes. This means that the word as it appears is incomplete (unless it is a command)

and that a prefix or suffix is to be added as seen in some of the illustrative sentences. In the dictionary, verbs and descriptives are all written with a dash in front of the word (e.g. -*hamba*). For example, the isiZulu word for “cook” is -*pheka*.

cook -*pheka*

Udadewethu **upheka** ukudla okumnandi.

(My sister cooks delicious food.)



Tenses and the negative are two more aspects which can lead to a change of meaning in verbs. Most of the verbs in the dictionary appear in the present indicative tense; however for the sake of variety some other tense forms have also been inserted.

Other parts of speech such as adverbs are used as they appear. In certain cases, locative forms are also given in a sentence for demonstrative purposes. As seen in the above table, isiZulu nouns belonging to classes 16 and 17 are used as adverbs indicating location, and also occupy the position of adverbs in the sentence. Locative nouns are also utilised to indicate location in isiZulu. The process of constructing these locative nouns is explained in the Introduction so as to assist learners who wish to comprehend the morphological marking expressing location. Users are informed that the initial vowel of the noun is replaced with a prefix *e-* or *o-* together with the suffix *-ini*. These affixes influence the vowels that follow or precede them in the following manner:

-*a* + *-ini* > *-eni* *intaba* (mountain) > *entabeni* (on/at the mountain)

Bilabial consonants in the last syllable of nouns ending in *-u* or *-o* require specific changes because of the semivowel *-w-* that results when adding *-ini* to these nouns. The phonological rules of isiZulu do not allow for bilabials and the semivowel *-w-* to be next to each other. To avoid this, palatalisation takes place, resulting in the following:

-*m-* + *-w-* > *-ny-* *umlomo* (mouth) + *-ini* > **emlomweni* > *emlonyeni* (in/on the mouth)

Some nouns only require the locative prefix *e-*. These nouns are the seasons, the four cardinal points, some place names, some loan words and a few general nouns, such as:

ikhaya (house) > *ekhaya* (in the house, at home)

imini (midday) > *emini* (at midday), etc.

The locative particle *ku-* is used with nouns from classes 1, 1a, 2, 2a and 6 (denoting people or groups), as well as all pronouns. The particle and the noun are written as one word and the initial vowel is dropped. In the case of class 2a the particle occurs as only *k-* (*ku-* + *ogogo* (granny and company) > *kogogo* (at granny and company)). The locative particle *kwa-* consists of the locative particle *ku-* followed by the possessive morpheme *a*, which gives this particle a locative as well as a possessive semantic value. It can be translated as 'at the place of' as in *kwaZulu* (at the place of the Zulu).

Words which can be used synonymously are separated by a semi-colon in the dictionary; e.g.

Every day *nsukuzonke; malangawonke* **Nsukuzonke** sizwa izindaba ezimnandi nezimbi.
(Every day we hear the good and the bad news.)

The language of isiZulu is extremely rich with proverbs and idioms. Many words are so descriptive that one word may qualify as a poem on its own! The authors have attempted to insert as many as possible of these words and phrases into the dictionary; with a short explanation of the literal as well as the figurative meaning thereof. For example,

hand *isandla/izandla* Ubhala ngesandla sokudla.
(He uses the right hand to write.)
Proverb: Izandla ziyagezana.
(One hand washes the other; i.e. one good turn deserves another.)

Where English equivalents of isiZulu words were absent in these proverbs and idioms, short explanations and descriptions of cross-cultural issues are made in cultural notes. These additions are aimed at enhancing the cross-cultural competency of the users of the *English-isiZulu dictionary for learners*.

5. Conclusion

Dictionaries provide the building blocks for discourse. Dictionaries are one of the most important texts that can be used for reference in schools, institutes of learning and also at home. The compilers of dictionaries should also, as far as possible, consider society and the specific users' needs. As there was need for a young learners' and second language learners' dictionary in English-isiZulu, the authors hope to fulfil this gap with this dictionary. However, this dictionary genre has unfortunately received very little attention from terminographers or specialized lexicographers. As elucidated in the article, the terminographical process of compiling the dictionary was aimed specifically at the needs of young and new learners of isiZulu. This was furthermore evident in the process of selecting and description of the lexical items for the dictionary; the manner in which the grammar system of especially isiZulu was presented, as well as the guide on the pronunciation of isiZulu words. Illustrative

idioms or proverbs containing specific terms highlighted cross-cultural issues which were further explained in cultural notes, tables and pictures. Although the concluding aspiration is that the compilation of this dictionary will play a crucial role in the acquisition and dissemination of the isiZulu language amongst beginner learners and also contribute towards the empowerment of language communities in South Africa, further compilations of this kind is needed in order to promote multilingualism and cross-cultural communication in South Africa.

References

- Béjoint, H. (2000). *Modern lexicography: An introduction*. Oxford: Oxford University Press.
- Chabata, E. (2013). The language factor in the development of Africa: A case for the compilation of specialised dictionaries in Indigenous African Languages. *South African Journal of African Languages*, 33(1), 51-58.
- De Schryver, G.-M., Sibiya, N., & Wilkes, A. (2015). *Oxford school dictionary/Isichazamazwi sesikole; IsiZulu-Isingisi/English-Zulu* (2nd ed.). Cape Town: Oxford Publishers.
- Doke, C. M., & Vilakazi, B. W. (1953). *Zulu-English dictionary*. Johannesburg: Witwatersrand University Press.
- Gouws, R. H., Heid, U., Schweickard, W., & Wiegand, A. E. (Eds.). (2013). *Dictionaries. An international encyclopaedia of lexicography*. Berlin: De Gruyter Mouton.
- Hartmann, R. R. K., & James, G. (1998). *Dictionary of lexicography*. London: Routledge.
- Householder, F. W., & Saporta, S. (Eds.). (1962). *Problems in lexicography*. The Hague: Mouton.
- Lew, R. (2010). Multimodal lexicography: The representation of meaning in electronic dictionaries. *Lexikos*, 20, 290-306.
- McIntosh, C. (Ed.). (2013). *Cambridge advanced learner's dictionary* (4th ed.). Cambridge, UK: Cambridge University Press.
- Ntuli, C. D., & Mollema, N. (2017). *The English-isiZulu dictionary for learners*. Unpublished Manuscript.
- Nyembezi, S. (1992). *Isichazamazwi sanamuhla nangomuso*. Pietermaritzburg: Reach Out Publishers.
- Prinsloo, D. J., & Gouws, R. H. (2006). Lexicographic presentation of grammatical divergence in Sesotho sa Leboa. *South African Journal of African Languages*, 26(4), 184-197.
- Smith, D. (2010). *English-Zulu dictionary helps break down language barriers in South Africa*.

Retrieved from <https://www.theguardian.com/world/2010/sep/08/south-africa-zulu-english-dictionary>

Svensén, B. (1993). *Practical lexicography: Principles and methods of dictionary-making*. Oxford, UK: Oxford University Press.

Thorndike, E.L. (1935). *The Thorndike junior dictionary*. New York: Appleton-Century.

Van Sterkenburg, P. G. J. (Ed.). (2003). *A practical guide to lexicography*. Amsterdam: John Benjamins Publishing.

Analyzing Words as a Social Enterprise: Lexicography in Africa with Specific Reference to South Africa

Professor Danie Prinsloo
University of Pretoria
danie.prinsloo@up.ac.za

Abstract

In this article a critical overview of lexicography in Africa is attempted with focus on the gradual change from a Euro-centric approach to dictionary compilation for African languages mainly performed by colonialists and in particular missionaries, to an Afro-centric approach. It will be shown that mother-tongue speakers of the African languages increasingly take responsibility for their own lexicographic destiny in the form of internally-initiated collaborative lexicographic projects and the compilation of dictionaries for African languages by Africans for Africans. It portrays a continent with hundreds if not thousands of under-resourced languages which lack dictionaries of good lexicographic quality and the challenges mainly in respect of financial constraints. It will be argued that lexicography in Africa is severely constrained by the joint detrimental effect of a lack of a dictionary culture and a lack of good dictionaries. A number of positive driving forces in African lexicography are identified but also some forces impacting negatively on African lexicography by restraining the development of a strong Afro-centric approach. Concern is expressed that the negative restraining factors seem to be on the increase, i.e. that African lexicography does not seem to keep up with modern trends in international lexicography. The article concludes with a heart-warming textbook example of a collaborative dictionary compilation project by mother-tongue speakers, the Ju|'hoan Children's Picture Dictionary.

Keywords: *African language lexicography, Afro-centric dictionary compilation, dictionary culture, Euro-centric dictionary compilation, missionaries, National Lexicography Units, under-resourced languages*

1. Introduction

This article reflects research done for an oral presentation at Australex 2015 against the background of the conference theme *Analysing Words as a Social Enterprise: Celebrating 40 Years of the 1975 Helsinki Declaration on Lexicography*. It gives an African perspective

on the progress made in terms of community engagement in lexicography, with special reference to South Africa and the Bantu languages.

The article describes a cooperative approach towards lexicographic activities for Bantu languages which are under-resourced minority languages in Africa. It will be illustrated how lexicographers, experts, practitioners, fieldworkers and community members cooperate in the compilation of dictionaries for these languages. Role-players and contributors include governmental initiatives such as the National Lexicography Units (NLU's), publisher-sponsored dictionary compilation, in-house compilers, freelance entrepreneurs, community voluntary individuals, community expert bodies e.g. the National Language Bodies (NLBs) and Provincial Language Committees (PLCs), and user feedback initiatives to create, extend and enhance dictionaries.

Community engagement is entrenched in the vision and practice that initial externally-driven initiatives be gradually replaced by community engagement taking over all of the activities and responsibilities of external forces. The focus will be on the many challenges faced by dictionary compilation in African languages being under-resourced languages.

A number of initiatives and cooperative initiatives towards lexicographic activities for Bantu languages currently under way will be described.

As a point of departure, a brief overview of the language families of Africa will be given and an indication of where they are spoken on the continent as well as some estimates on the number of African languages. This is followed by estimates of the number of dictionaries for African languages reflecting the lack of dictionaries for the continent of Africa as a whole. One of the core aspects of a discussion on African lexicography is the Euro-centric character of initial African language dictionaries and the urge to change it to an Afro-centric character. This aspect is discussed in detail. In the following section attention is given to governmental projects and institutes followed by a discussion on resource-scarceness of African languages, especially financial constraints portrayed as the root of all problems in African language lexicography, especially the lack of good dictionaries and the absence of a strong dictionary culture. A brief discussion is given of lexicographic problems caused by grammatical complexity and lemmatization problems in African languages. Finally, a case of community engagement in the compilation of an African language children's dictionary is described.

2. African languages

African languages can be divided into six major language families (Wikipedia, 2017):

- Afroasiatic languages are spread throughout Western Asia, North Africa, the Horn of Africa and parts of the Sahel.
- Austronesian languages are spoken in Madagascar.
- Indo-European languages are spoken in South Africa and Namibia (Afrikaans, English, German) and are used as lingua francas in the former colonies of Britain (English), former colonies of France (French), former colonies of Portugal (Portuguese), former colonies of Spain (Spanish) and the current Spanish Moroccan

- enclaves of Ceuta and Melilla (Spanish).
- Khoe languages are concentrated in the Kalahari Desert of Namibia and Botswana.
- Niger–Congo languages (Bantu and non-Bantu) cover West, Central, Southeast and Southern Africa.
- Nilo-Saharan languages (unity debated) are spoken from Tanzania to Sudan and from Chad to Mali.



Figure 1: The language families of Africa (Wikipedia, 2017)

Estimates on the number of languages spoken in Africa differ substantially but all sources suggest that the number is huge. Mann (1990, p. 1) refers to Alexandre who claims that 800 languages are spoken in Africa, but Alexandre acknowledges the possible validity of other estimates of approximately 1 200. Mann also refers to Mann and Dalby who sets the number of African languages to 2 250. Wikipedia sources such as Epstein and Kole estimate even more.

The total number of languages natively spoken in Africa is variously estimated (depending on the delineation of language vs. dialect) at between 1 250 to 2 100, and by some counts at "over 3 000" (Wikipedia, 2017).

3. African language dictionaries

In the African context “dictionary” is a relative term, since mere word lists are often regarded as dictionaries.

Awak (1990, p. 13) refers to Hendrix who says that over a period of 350 years 2 600 African lexicons have been compiled, but more than half of them cannot be regarded as dictionaries but are merely word lists. A thousand-plus dictionaries for say, 2 000 languages are in stark contrast with a single language such as English for which there were at least 6 700 English dictionaries 30 years ago, Quirk as cited by Awak (1990, p. 8), in the library of Indiana State University at Terre Haute.

More than a decade ago De Schryver (2003, p. 2) found that there were already nearly 200 internet dictionaries for nearly 120 different African languages at the time. However, from a lexicographic perspective most of these sources were merely word lists or lemma lists with only basic information on form and meaning, or paper dictionaries presented online. They do not answer the expectation of being dictionaries with true electronic features, appealing and effective screen presentation and the ultimate: online dictionaries solving lexicographic problems that could not be satisfactorily solved in a paper dictionary. Awak (1990) points out that at the time of the survey, there were more African languages than there were dictionaries for African languages and that the lexical coverage was inadequate:

With such a proliferation of dictionaries, one finds it disheartening to realize that most languages of the world, particularly African languages, lack adequate lexical coverage. (p. 8)

Assigning one dictionary to each African language, the distribution would be such that many languages would not have any dictionaries at all. This indeed is the reality: many languages cannot boast a single dictionary. (p. 14)

4. The Euro-centric character of African language dictionaries

A further feature of early African language lexicography, which is often criticized by researchers such as Awak (1990, p. 17), Gangla (2001, p. 52), Nkomo (2008, p. 48) & Prah (2007, p. 23), is that it was Euro-centric; compiled by Europeans for their own use and not by mother-tongue speakers for mother-tongue speakers. Awak (1990) formulates it as follows:

The history of lexicography in Africa began as a result of European activities: exploration, evangelization and colonialization. The early lexicons, whether compiled by explorers, missionaries or colonial administrators, were ‘Euro-centered’, produced in Europe for Europeans rather than for African users. ... Even with the emergence of modern linguistics, lexicographic works have been primarily intended for scholarly interest and not for the needs of ordinary Africans. (p. 17)

Gangla (2001, p. 52) shows that even the pictorial illustrations in the *South African Multi-language Dictionary and Phrase Book* (Reynierse, 1996) are more Euro-centric than African, for instance that the rooms in a house include a pantry while the sports played are cricket and rugby.

Prah (2007) takes a less subtle stand:

... the fact that in the present situation, the cultures and languages of the majorities are suppressed and silenced in favour of a dominant Eurocentric high culture, which everybody is willy nilly obliged by force of circumstance to emulate. (p. 23)

A number of scenarios can be distinguished for African languages dictionaries:

- dictionary compilation by foreigners abroad – a true Euro-centric approach
- dictionary compilation by foreigners in Africa, e.g. on missionary posts using Africans as informants – also a Euro-centric approach
- dictionary compilation by non-mother-tongue speakers of Africans languages who studied the grammar and even learned to speak African languages, working with mother-tongue speakers. – contains Afro-centric elements
- dictionary compilation by Africans guided by foreigners – contains Afro-centric elements
- dictionary compilation by Africans – a true Afro-centric approach.

Gouws (2007, pp. 314, 315) regards dictionaries compiled by “foreigners” primarily to serve their purposes and not that of the members of the local speech community as externally-motivated dictionaries, and in contrast he regards dictionaries compiled mostly by people from within the speech community but sometimes also by other people as internally-motivated dictionaries. Internally-motivated dictionaries are directed at the needs of the speech community and at enhancing the reference possibilities of that language. Gouws (2007) states:

A characteristic feature of the linguistic situation in the postcolonialization Africa is the reality of emerging indigenous languages. This has led to an increasing need for dictionaries in which these emerging languages are treated. In this regard monolingual dictionaries have to be regarded as an ultimate aim but the immediate need is for bilingual dictionaries in which an emerging language is coordinated with an already standardized language. This situation created the opportunity for a drastic swing from externally motivated to internally motivated dictionaries, resulting in a situation which sees the majority of new lexicographic projects in Africa characterized by an Afro-centered approach that deviates from the Euro-centered approach. (p. 315)

The development in African lexicography from the colonial era where a Euro-centric approach prevailed to an Afro-centric approach is a significant achievement and seems to be problem-free as if “all problems” have now been solved. Gouws (2007, p. 314) even

observe “an internal drive by mother-tongue speakers of the languages to take responsibility for the compilation of dictionaries”.

Prinsloo (2017) and Prinsloo & Taljard (2017) however sketch a much less favourable situation and argue that African language lexicography not only seriously lacks behind international lexicographic standards but that the gap is increasing. In Prinsloo’s view the number of challenges for the production of good paper and electronic dictionaries for African languages is on the increase. He distinguishes “tailwinds” and “headwinds” impacting on African language lexicography. Amongst the supporting factors count the increased compilation and use of corpora for macrostructural and microstructural quality enhancement, establishment of commercial and governmental projects and institutes, increased research and publications on African language lexicography and the guidance and encouragement offered and facilitated by the African Association for Lexicography (AFRILEX). On the other hand, impacting negatively on African language lexicography are scarcity of resources, lack of a dictionary culture, problematic lexicographic traditions, excessive purism, etc. Some of these issues will be briefly discussed below.

5. Projects and institutes

Projects and institutes established for the compilation of dictionaries in Africa by Africans and for the benefit of users of the African languages have great potential to fulfil the objectives of an Afro-centric dictionary compilation and works of merit can be quoted as proof. Among these initiatives count the *Institute of Kiswahili Research* (TUKI) (University of Dar-es-Salaam, Tanzania), the Alex project (later: *African Languages Research Institute* or ALRI) in Zimbabwe, the National Lexicography Units in South Africa, the isiZulu National Corpus (Khumalo, 2017) and the recently-established South African Centre for Digital Language Resources (SADiLaR). Unfortunately such projects do not always live up to their full or expected potential. So, for example, is the Pan South African Language Board (PanSALB) often criticized for not fulfilling its intended role in the South African lexicographic landscape as stated by Wolvaardt (2017):

How have the flag bearers for South Africa’s bold approach to restoring the nation’s indigenous languages, become the neglected poor relations of the deeply flawed institution that is the Pan South African Language Board (PanSALB)? How has the national lexicography project, pioneered in the early years of South Africa’s democratic transition by some of the country’s greatest language activists and academics, been permitted to degenerate into the scattered efforts of a diminishing band of lexicographers? Forced for the last decade into perpetual begging for adequate funding, the National Lexicography Units (NLUs) hover on the verge of extinction. The critical question is, ‘does anyone care?’ Dishearteningly, indications from government seem to imply that the response is, ‘Not really.’ (p. 9)

In South Africa, community engagement is entrenched in the vision and practice that initial government funding to the NLUs for all eleven official languages of South Africa be gradually replaced by community engagement taking over all of the activities and

responsibilities of the Government. As is clear from Wolvaardt's statement above, this expected level of community engagement did not materialize in the South African situation. African language lexicography should have benefited more from a number of workshops, and numerous publications on problematic aspects of Bantu languages and efforts to build corpora for these languages. The PanSALB also made a sincere effort in the first few years after the establishment of the National Lexicography Units to employ experts in lexicographic planning and corpus-based dictionaries to guide the units. These experts paid numerous visits to the units and gave on-site guidance to the newly employed lexicographers.

Central to Bantu language lexicography is lexicographic debate and decisions in respect of (a) lemmatization approaches, (b) orthography of the language, (c) lexicographic traditions and (d) lemmatization strategies that are unique to the Bantu languages. These aspects will be discussed in more detail below. The Bantu language lexicographer not only has to deal with all of these aspects, but he or she also has to consider the complex interplay within (a) to (d) for each dictionary to be compiled in order to fulfil the needs of the respective target users.

So, it is unfortunate that a major driving force behind what Gouws (2007, p. 315) refers to as "a drastic swing from externally motivated to internally motivated dictionaries, resulting in a situation which sees the majority of new lexicographic projects in Africa characterized by an Afro-centric approach", fails according to Wolvaardt (2017). The situation portrayed for PanSALB brings the issue of the unavailability or underutilisation of resources as the main challenge to dictionary compilation in Africa to the fore.

6. African languages as under-resourced languages

It can be argued that being under-resourced languages is the root of all problems in African language lexicography. The overview given by the Workshop on Collaboration and Computing for Under-Resourced Languages in the Linked Open Data Era (CCURL, 2014) fits the African lexicographic situation like a glove and is quoted verbatim with emphasis inserted:

Under-resourced languages suffer from a chronic lack of available resources (human-, financial-, time- and data-wise), and of the fragmentation of efforts in resource development. This often leads to **small resources** only usable for **limited purposes** or **developed in isolation** without much connection with other resources and initiatives. The benefits of reusability, accessibility and data sustainability are, more often than not, out of the reach of such languages.

Yet, these languages are those that could most profit from emergent **collaborative approaches** and **technologies for language resource development**. Given the **high cost of language resource production**, and given the fact that in many cases it is impossible to avoid the manual construction of resources (e.g. if accurate models are requested or if there is to be reliable evaluation) it is worth considering **the power of social and collaborative media**

to build resources, especially for those languages where there are no or limited language resources built by experts yet (CCURL, 2014).

7. Lack of good dictionaries and a dictionary culture

It could be stated outright that dictionaries for African languages are perceived to be of low lexicographic standards. Gouws (1990) and Busane (1990) formulate it as follows:

Lexicographical activities on the various indigenous African languages . . . have resulted in a wide range of dictionaries. Unfortunately, the majority of these dictionaries are the products of limited efforts not reflecting a high standard of lexicographic achievement (Gouws, 1990, p. 55).

It is thus clear that the bulk of dictionaries of major national or regional languages referred to above still leave the African user in the lurch, because of the nature of their presentation and the arrangement of the entries (Busane, 1990, p. 27).

Good dictionaries and a good dictionary culture go hand in hand, and, as will briefly be illustrated in this paragraph, are both lacking in African language lexicography.

Many African languages do not even have a single dictionary and for languages where there is a dictionary available, a one-size-fits-all product has to suffice because a single dictionary has to fulfil the needs of different target users. Mono-lingual dictionaries are scarce and bilingual dictionaries do not succeed in providing their users with a wealth of information. They tend to give only very basic treatment of lemmas, i.e. translation equivalents. They barely fulfil the most basic text reception (decoding) needs of the users and are not useful for text production (encoding) purposes. Even the very latest series of bilingual dictionaries for African languages compiled by the government-funded NLUs in South Africa, e.g. *The Official Setswana-English dictionary* (Mareme, 2015) reflect very basic treatment, cf. an extract given of the alphabetic stretch “D” in Figure 2.

D

ENGLISH-SETSWANA BILINGUAL DICTIONARY

daddy (noun) papa	dealt with (verb) kampane; kampanwa
daisy (noun) pela	dean (noun) modini
dam (noun) letamo; tamo	dear wife (noun) ntshadi
damage ¹ (noun) tshenyegelo; tshenyo; ² (verb) senya	death (noun) leso
damaged ¹ (adjective) sentseng; senyegile; ² (verb) sentse	death sentence (noun) katlholelolo
dampen something (verb) nyanya	deaths (noun) dintsho
dance for oneself (verb) ipinela	debate ¹ (noun) kganetsano; kganetsanyo; ngangisano ngangisano; ² (verb) nganga; ngangisana
dance (noun) motantsho	debates (noun) dingangisano; dikganetsano
dance several times especially because of pain or joy (verb) binabina	debauchery (noun) bothaswa
dance ¹ (noun) modikwadikwane; moretelediane; ² (verb) bina	debris left by a flood (noun) dikgogola
dancer (noun) motantshi	debt (noun) sekoloto
dancers (noun) babini	debtor (noun) moadimi; mokoloti
dances (noun) mmimo	debts (noun) diakhaonte; dikoloto
dandy (noun) seithati	decade (noun) ngwagasome
danger (noun) kotsi	decantation (noun) tshololo
dangerous (adjective) diphatsa; mabe	decay (noun) sebody
dangerous animal (noun) seoka	deceased ¹ (adjective) tlhokafetseng; ² (noun) moswi; baswi (plural)
dangerous animals (noun) dibata	deceit (noun) boferefere
dangerous fights (noun) marumo	deceitful (adjective) ferekana
dangle (verb) kadiela; kadietsa	deceive (verb) ferekanya; thetsa; tsietsa
dark marks on the skin (noun) ditlhoko	deceive me (verb) ntsietsa
dark ¹ (adjective) gontsho; ² (noun) lefifi; mafifi	deceive oneself (verb) iphora
darken (verb) ntshofatsa	deceived (verb) tsietsaga
darkness (noun) lefifi	deceiver (noun) moeki
dates (noun) matlha	December (noun) Desemba; Disemba; Morule; Sedimonthole
dates of birth (noun) matsalo	decently dressed (verb) ikatega
daughter (noun) morwadi	deception (noun) kaketso; tsietsa
daughter of (noun) morwadia	decide for oneself (verb) itaolela
daughter-in-law (noun) ngwetsi	deciduous (adjective) tlhothorega
daughters (noun) barwadi	decision (noun) tshwetso
daughters-in-law (noun) dingwetsi	decisions (noun) ditshwetso
dawn (noun) mahube; masa	declare (verb) kakanya

Figure 2: The first section of D in *The Official Setswana-English dictionary*

As for dictionary culture, African language lexicography is severely hampered by the lack of a strong dictionary culture. Atkins (1998), after having studied the African language situation, remarks as follows:

[T]he speakers of African languages have not in their formative years had access to dictionaries of the richness and complexity of those currently available for European languages. They have not had the chance to internalize the structure and objectives of a good dictionary, monolingual, bilingual or trilingual. (p. 3)

Her observations are confirmed by Taljard, Prinsloo & Fricke (2011, p. 103).

Gouws (1990), in reference to African language dictionaries, establishes a clear link between dictionaries and dictionary culture:

With a few exceptions, these dictionaries offer only restricted translation equivalents, aimed at decoding, with no or little attention given to the encoding function of a pedagogical dictionary. ... there is less information to be exploited by the user. This results in a vicious circle, with the dictionary user not realizing what he can expect to find in his dictionary or how to interpret the given entries because the lexicographer does not include all the possible information categories or treat them on an equal basis. (p. 55)

Atkins & Varantola (1998) state:

There are two direct routes to more effective dictionary use: the first is to radically improve the dictionary: the second is to radically improve the users. (p. 83)

Gouws & Prinsloo (2005) also emphasize the urge to improve the dictionaries and at the same time the dictionary users by means of a schematic illustration given in Figure 3

DICTIONARIES				USERS		
▶▶▶▶	▶▶▶▶	▶▶▶▶	▼▼▼	◀◀◀◀	◀◀◀◀	◀◀◀◀
Bad/useless dictionary or no dictionaries available	Dictionary of relatively low lexicographic achievement	Dictionary of relatively high lexicographic achievement	▼▼▼ Perfect dictionary & Ideal User ▲▲▲	Relatively good dictionary using skills	Relatively poor dictionary using skills	Pre dictionary culture environment
▶▶▶▶	▶▶▶▶	▶▶▶▶	▲▲▲	◀◀◀◀	◀◀◀◀	◀◀◀◀

Figure 3: Towards the perfect dictionary and the ideal user (Gouws & Prinsloo 2005, p. 42)

Gouws (2016) also gives guidelines towards a comprehensive dictionary culture in the digital era.

8. Grammatical complexity and lemmatization problems in African languages

Sources such as Prinsloo (2012), Van Wyk (1995), De Schryver & Prinsloo (2000a, 2000b and 2001) and Prinsloo (2011) give detailed discussions of especially lemmatization problems in African languages with specific reference to the Bantu languages. The Bantu languages are characterized by a nominal class system according to which nouns are sub-classified into different noun classes. These classes have a complex concordial and pronominal system, and complex word formation strategies by means of numerous affixes to verbal and

nominal stems, Prinsloo (2012, pp. 127, 128). Van Wyk (1995, p. 87) calculates that a single verb in Zulu for example can have up to $18 \times 19 \times 6 \times 2 = 4,104$ combinations. So, for example, for a single verb *-sebenza* ‘work’, Prinsloo (2012, p. 128) shows that a set of 2,525 derivations were found in a Zulu corpus. Figure 4 lists the 131 derived forms of the verb *-sebenza* that occur 20 times or more than fifty times in the corpus.

UMSEBENZI (5883), EMSEBENZINI (1456), IMISEBENZI (1009), UKUSEBENZA (548), MSEBENZI (470), LOMSEBENZI (446), NOMSEBENZI (309), USEBENZA (299), ESEBENZA (290), NGOMSEBENZI (253), UKUSEBENZISA (244), IZISEBENZI (242), SEBENZISA (219), NGOKUSEBENZISA (199), NGUMSEBENZI (179), ABASEBENZI (174), NEMISEBENZI (173), USEBENZISE (167), SEBENZA (155), EMISEBENZINI (153), USEBENZISA (143), ABASEBENZA (134), KOMSEBENZI (132), ASEBENZE (131), WASEBENZA (127), OSEBENZA (125), NGISEBENZA (124), NOKUSEBENZA (121), SOMSEBENZI (112), NGEMISEBENZI (112), USEBENZE (101), YOMSEBENZI (100), UYASEBENZA (97), ISEBENZA (96), ASEBENZA (96), BASEBENZA (92), SISEBENZA (90), ISEBENZISA (90), AYESEBENZA (88), KULOMSEBENZI (87), KUNGUMSEBENZI (86), ISISEBENZI (81), SISEBENZISE (74), ASEBENZISE (72), SISEBENZISA (69), LOWOMSEBENZI (68), ZOMSEBENZI (63), KOSEBENZA (63), KUSEBENZA (62), ZEMISEBENZI (58), NASEMSEBENZINI (58), WAYESEBENZA (57), NGOKUSEBENZA (56), BASEBENZE (55), YOKUSEBENZA (53), MISEBENZI (53), ISEBENZISE (53), EZISEBENZA (53), ZISEBENZISA (51), LEMISEBENZI (51), BESEBENZA (51), ZISEBENZA (50), SISEBENZA (50), UKUYOSEBENZA (49), KWEMISEBENZI (49), ESEBENZISA (49), ENGASEBENZI (49), ZOKUSEBENZA (45), YOKUSEBENZISA (45), NGISEBENZA (45), NEZISEBENZI (44), BASEBENZISA (44), BASEBENZISE (42), USEBENZILE (41), NGIYASEBENZA (40), ISEBENZE (37), OKUSEBENZA (36), AKASEBENZI (36), YEMISEBENZI (35), UKUSEBENZELA (35), ABASEBENZAYO (35), ABABESEBENZA (35), ESISEBENZA (34), OSEBENZISA (33), NINGASEBENZI (32), EKUSEBENZINI (32), YIMISEBENZI (31), OMSEBENZI (31), NOKUSEBENZISA (31), IYASEBENZA (31), AYOSEBENZA (31), UZOSEBENZA (30), NABASEBENZI (30), LOKUSEBENZISA (30), USEBENZELA (29), LISEBENZA (29), ASEBENZISA (29), USEBENZAPHI (28), LOKUSEBENZA (28), KUBASEBENZI (28), ENGENAMSEBENZI (27), BESEBENZISA (27), WOMSEBENZI (26), KUSEBENZE (26), ZABASEBENZI (25), OWAYESEBENZA (25), KWAKUNGUMSEBENZI (25), KWABASEBENZI (25), EZISEBENZISA (25), BOMSEBENZI (25), LISEBENZA (24), EMISEBENZI (24), BABESEBENZA (24), NGALOMSEBENZI (23), KOKUSEBENZA (23), BAYASEBENZA (23), UYOSEBENZA (22), NALOMSEBENZI (22), EKUSEBENZISENI (22), ANGISEBENZI (22), AKUNAMSEBENZI (22), ZISEBENZISE (21), NGABASEBENZI (21), IMISEBENZANA (21), EZINGENAMSEBENZI (21), ESESEBENZA (21), YASEBENZA (20), UZISEBENZISE (20), ONGASEBENZI (20), NGASEBENZA (20), ANGINAMSEBENZI (20)

Figure 4: Words containing *-sebenz-* in the Zulu corpus (frequencies in brackets)

In order to find the meaning of, for example, *nomsebenzi* (309), *ngomsebenzi* (253), *emsebenzini* (1,456), *somsebenzi* (112), etc. the user has to identify the noun through stripping off the affixes to isolate *-sebenza* in order to look it up and has to “add-up” the meanings of the stripped suffixes again in order to arrive at the actual meanings of these derivations. Bantu words are thus highly complex in terms of especially morpho-phonological structure and acquire much attention for analysis in the process of lemmatization.

To make things worse, two different word lemmatization strategies viz. a stem-based approach versus a word-based approach were traditionally followed. A stem-based approach requires stem identification as explained for *-sebenza* but can be highly problematic to perform for users who do not have a sound knowledge of the grammar of the language. This problem is so severe that there are instances where neither the lexicographer nor the user knows what the stem is, cf. Van Wyk (1995) for a detailed discussion. Prinsloo (2009) says that lexicographers furthermore err in forcing stem lemmatization onto a number of disjunctively written languages for which word lemmatization is by far the better option:

Prinsloo & De Schryver (1999, p. 261) point out that the user is unnecessarily burdened with numerous problems relating to isolating the stem in many problematic instances such as *ngwana* (*mo-ana) ‘child’, *mmušo* (*mo-bušo) ‘government’, *muši* (*mo-uši) ‘smoke’, where the noun stem is no longer synchronically identifiable. In some cases, (such as stems containing the nasal

prefix of class nine or aspirated and non-aspirated noun stems), it is simply not possible for either the user or the lexicographer to determine unambiguously what the form of the isolated stem is. Lexicographers for the disjunctively written languages need not follow the stem lemmatisation tradition for the sake of tradition, nor should they assume that stem lemmatisation is more 'scientific' than word lemmatization. (p. 158)

9. Community engagement in the compilation of dictionaries: The Ju|'hoan Children's Picture Dictionary

Community engagement in the compilation of the Ju|'hoan Children's Picture Dictionary (Jones & Cwi, 2014), is a heart-warming textbook example of how wings could be given to the Afro-centric approach to dictionary compilation. In its self-description the compilation of this dictionary is described as a collaborative project between the Namibian Ju|'hoan from the Tsumkwe region and academics from various fields. The primary aim of this dictionary is stated as to provide Ju|'hoan children with a piece of mother-tongue literature that is locally inspired and that can also be shared with those from the outside world (Jones & Cwi, 2014b).

Ju|'hoansi is a Kx'a (Northern Khoesan) language. It is the language of the Ju|'hoan people who are San. They can be found in Namibia and Botswana. Ju|'hoansi is an endangered language with only 11000 speakers left (Jones & Cwi, 2014a, p. vi).



Figure 5: Location of Tsumeb in Namibia (Google map, 2017)



The children got to work on their ideas for developing their own dictionary.

Figure 6: Children at work on the Ju|'hoan Children's Picture Dictionary (Jones & Cwi, 2014c).

The themes covered in this dictionary are grouped into thematic categories for animals, birds, insects, home and family, hunt, gather and dance. Pictorial illustrations are given for each lemma and translation equivalents are given in Afrikaans and English. Clickable sound icons are provided in the accompanying CD-ROM.



Figure 7: Illustrations in the Ju|'hoan Children's Picture Dictionary (Jones & Cwi, 2014a).

10. Conclusion and the way forward

In this article it was attempted to give a perspective on the development of African lexicography from a Euro-centric to an Afro-centric approach for dictionary compilation for

African languages. Enough evidence exists that this change is in principle well on its way and it could be expected that it would gain more momentum.

It has however also been shown in some detail that although there are many factors positively impacting on African language lexicography, there might be even more factors hampering the rapid and successful transition to Afro-centric dictionary compilation. The main problematic aspect that was singled out is lack of resources, especially financial constraints.

We believe that the way forward depends on increased willingness by mother-tongue speakers of African languages to be engaged in community projects for dictionary compilation and to follow best international practices for the compilation of modern paper and electronic dictionaries.

References

- Atkins, B.T.S. (1998). *Some discussion points arising from Afrilex-Salex '98*. [Unpublished course evaluation document]. University of Pretoria, South Africa.
- Atkins, B.T.S., & Varantola, K. (1998). Monitoring Dictionary Use. In B.T.S. Atkins (Ed.), *Using dictionaries. Studies of dictionary use by language learners and translators* (pp. 21-81). Tübingen, Germany: Max Niemeyer Verlag.
- Awak, M.K. (1990). Historical Background, with Special Reference to Western Africa. In R.R.K. Hartmann (Ed.), *Lexicography in Africa. Progress Reports from the Dictionary Research Centre Workshop at Exeter, 24–26 March 1989: Exeter Linguistic Studies 15* (pp. 8–18). Exeter, England: University of Exeter Press.
- Busane, M. (1990). Lexicography in Central Africa: the user perspective with special reference to Zaïre. In R.R.K. Hartmann (Ed.), *Lexicography in Africa. Progress reports from the Dictionary Research Centre Workshop at Exeter, 24–26 March 1989: Exeter Linguistic Studies 15* (pp. 19–35). Exeter, England: University of Exeter Press.
- CCURL. (2014): Proceedings overview: *Workshop on collaboration and computing for under-resourced languages in the Linked Open Data Era*. Retrieved from <http://www.ilc.cnr.it/ccurl2014/>
- De Schryver, G.M. (2003). Lexicographers' dreams in the Electronic-Dictionary Age. *International Journal of Lexicography*, 16(2), 143–199.
- De Schryver, G.M., & Prinsloo, D.J. (2000a). Electronic corpora as a basis for the compilation of African-language dictionaries, Part 1: The macrostructure. *South African Journal of African Languages*, 20(4), 291–309.

- De Schryver, G.M., & Prinsloo, D.J. (2000b). Electronic corpora as a basis for the compilation of African-language dictionaries, Part 2: The microstructure. *South African Journal of African Languages*, 20(4), 310–330.
- De Schryver, G.M., & Prinsloo, D.J. (2001). Corpus-based activities versus intuition-based compilations by lexicographers, the sepedi lemma-sign list as a case in point. *Nordic Journal of African Studies* 10(3): 374–398.
- Gangla, L. A. (2001). *Pictorial illustrations in dictionaries*. Retrieved from: <https://repository.up.ac.za/bitstream/handle/2263/22862/Complete.pdf>
- Google map. (2017). Retrieved from: <https://www.google.co.za/maps/place/Tsumeb,+Namibia/>
- Gouws, R.H. (1990). Information categories in dictionaries, with special reference to Southern Africa. In R.R.K. Hartmann (Ed.), *Lexicography in Africa. Progress reports from the Dictionary Research Centre Workshop at Exeter, 24–26 March 1989: Exeter Linguistic Studies 15* (pp. 52–65). Exeter, England: University of Exeter Press.
- Gouws, R.H. (2007). On the development of bilingual dictionaries in South Africa: aspects of dictionary culture and government policy. *International Journal of Lexicography*, 20(3), 313–327.
- Gouws, R.H. (2016). Op pad na ’n omvattende woordeboekkultuur in die digitale era. *Lexikos*, 26, 103–123.
- Gouws, R.H., & Prinsloo, D.J. (2005). *Principles and practices of South African lexicography*. Stellenbosch, South Africa: African Sun Media.
- Jones, K., & Cwi, T.F. (2014a). *Ju/’hoan children’s picture dictionary*. Pietermaritzburg, South Africa: University of KwaZulu-Natal Press.
- Jones, K., & Cwi, T.F. (2014b). *Ju/’hoan children’s picture dictionary. Information leaflet*. Pietermaritzburg, South Africa: University of KwaZulu-Natal Press.
- Jones, K., & Cwi, T.F. (2014c). *Ju/’hoan children’s picture dictionary. Interactive disc-gallery*. Pietermaritzburg, South Africa: University of KwaZulu-Natal Press.
- Khumalo, L. (2017). The design and implementation of a corpus management system for the isiZulu National Corpus. In S.E. Bosch, & D. Nkomo, (Eds.), *Abstracts of the 22nd International Conference of the African Association for Lexicography. Conference of the language associations of Southern Africa (CLASA)*. Rhodes University, Grahamstown, South Africa, 26–29 June 2017.
- Mann, M. (1990). A linguistic map of Africa. In R.R.K. Hartmann (Ed.), *Lexicography in Africa. Progress reports from the Dictionary Research Centre Workshop at Exeter*,

- 24–26 March 1989: *Exeter Linguistic Studies 15* (pp. 1–7). Exeter, England: University of Exeter Press.
- Mareme, G.B. (Ed.) (2015). *Thanodi ya Temepedi Setswana-English*. Setswana National Lexicography Unit. Mmabatho, South Africa: South African Heritage Publishers.
- Nkomo, D. (2008). Indigenous languages for culture, science and technology in Africa: On the contributions of lexicography and terminology development. *Postamble*, 4(1), 46–63.
- Prah, K.K. (2007). *Challenges to the promotion of indigenous languages in South Africa*. Retrieved from <http://www.casas.co.za>
- Prinsloo, D.J. (2009). Current lexicography practice in Bantu with specific reference to the Oxford Northern Sotho school dictionary. *International Journal of Lexicography*, 22(2), 151–178.
- Prinsloo, D.J. (2011). A critical analysis of the lemmatisation of nouns and verbs in isiZulu. *Lexikos*, 21, 169–193.
- Prinsloo, D.J. (2012). Electronic lexicography for lesser-resourced languages: The South African context. In S. Granger, & M. Paquot (Eds.), *Electronic Lexicography* (pp. 119–144). Oxford, England: Oxford University Press.
- Prinsloo, D.J. (2017). Africa's response to the corpus revolution. *11th International Conference of the Asian Association for Lexicography. Asialex 2017*. 10–12 June 2017. Guangzhou, China.
- Prinsloo, D.J., & Taljard, E. (2017). Taking stock of changes in lexicography with specific reference to their impact on African language lexicography. *AFRILEX workshop: Lexicography: a continuously changing discipline 22 June 2017*. Stellenbosch, South Africa.
- Reynierse, C. (Ed.) (1996). *South African multi-language dictionary and phrase book*. Cape Town, South Africa: Reader's Digest Association of South Africa.
- Taljard, E., Prinsloo, D.J., & Fricke, I. (2011). The use of LSP dictionaries in secondary schools – a South African case study. *South African Journal of African Languages*, 31(1), 87–109.
- Van Wyk, E.B. (1995). Linguistic assumptions and lexicographical traditions in the African languages. *Lexikos*, 5, 82–96.
- Wikipedia. (2017). Languages of Africa. Retrieved from: https://en.wikipedia.org/wiki/Languages_of_Africa#/media/File:Map_of_African_language_families.svg

Wolvaardt, J. (2017). South Africa's National Lexicography Units: Time for a reboot? In S.E. Bosch, & D. Nkomo, (Eds.), *Abstracts of the 22nd International Conference of the African Association for Lexicography. Conference of the language associations of Southern Africa (CLASA)*. Rhodes University, Grahamstown, South Africa, 26–29 June 2017.

Analysing Words as a Social Enterprise: Celebrating 40 Years of the 1975 Helsinki Declaration on Lexicography

ISBN: 978-0-646-98173-4

The peer-reviewed papers that constitute this volume were initially delivered at the 2015 Australex Conference in Auckland, New Zealand.

This volume was published online in December 2017 and is available from the Australex website:

<https://www.adelaide.edu.au/australex/publications/>