Compounding in Namagowab and English

(exploring meaning creation in compounds)

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COMPULSORY DECLARATION

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.

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Abstract

This essay investigates compounding in Namagowab and English, which belong to two widely divergent groups of languages, the Khoesan and Indo-European, respectively. The first motive is to investigate how and why new words are created from existing ones. The reading and data interpretation seeks an understanding of word formation and an overview of semantic compositionality, structure and productivity, within the broad context of cognitive, lexicalist and distributed morphology paradigms. This coupled with history reading about the languages and its people, is used to speculate about why compounds feature in lexical creation. Compounding is prevalent in both languages and their distance in terms of phylogenetic relationships should allow limited generalizing about these processes of formation. Word lists taken from dictionaries in both languages were analyzed by entering the words in Excel spreadsheets so that various attributes of these words, such as word type, compound class (Noun, Verb, Preposition, Adjective and Adverb) and constituent class could be counted, and described with formulae, and compound and constituent meaning analyzed. The conclusion was that socio historical factors such as language contact, and aspects of cognition such as memory and transparency, account for compounding in a language in addition to typology.

Contents

Dedication and thanks

This thesis is dedicated to all those who learn, speak and teach Khoekhoegowab, and to the memory of the countless generations who have done so, creating a lexicon whose depth and power transcends the experience and creativity of the individual.

Special thanks to the language practitioner-activists who gave their time, Pedro Dausab and Bradley van Sitters, to my supervisor Sean Bowerman and Stephan Kloppert for caring for me during my writing and sharing the losses and sacrifices involved. Thankyou to the funders Lestrade and NRF who helped me survive in the beginning. Finally, I would like to acknowledge the words best capturing my own inspiration :

In Namagowab:

Tsoatsoas !nâs ge mîsa ge hâ i

Or in English:

In the beginning was the word

1 Introduction

Lexicalization describes the process of the addition of words to the lexicon of a language, and the aim of this study was to find out more about one aspect of this process, namely, the formation and motivation for producing new words from existing words or roots. The choice of languages was intended to provide a cross linguistic comparison of how the parts are put together in this process, both from the perspective of structural combination and meaning combination. Distance in terms of language families and relevance to the South African context were also deciding factors. The raw material for the data analysis is drawn from word lists I compiled from the *Concise Oxford English Dictionary (1929, 1964, 1999)* and Haacke and Eiseb (2002) *A Khoekhoegowab Dictionary*. Dictionaries are seldom used for raw data in linguistics, and one is unlikely to find a methodological model to follow, requiring some experimentation. Lacking profound speaker knowledge of Khoekhoegowab I sought out similarities in lexical creation in the two languages to attempt to reach a conclusion about language in general, rather than making this a detailed study of Khoekhoegowab lexical semantics, or the unusual features of either language. Compounding is one form of creating new lexical items from pre-existing ones, in which the two principles concatenation and extension are particularly transparent, and well illustrated. Concatenation I understand as putting parts together, and extension the expansion of the reference of words. Compounding has an interesting interim position in theoretical conceptualizations, the Lexicon, Grammar and Morphology.

There is a large literature review due to the amount of new reading required by a student who has never covered the lexicon as a topic in coursework or undergraduate studies. The reading is a mix of structural, semantic and cognitive theory, and reading on Khoekhoegowab and English History. The essay first addresses the historical background of Khoekhoe people in this region, and the historical origins of English's morphology, looking for reasons why new lexical signification is needed and created. It concludes with a discussion relevant to this history, of the feedback on the dictionary from two language practitioners who speak and or teach Khoekhoegowab. In the following sections the principles used to help organize the subject matter of the different linguistic theories create rough

groupings in which there is much overlap of coverage. Firstly there is general morphology, in which a broad theoretical base is sought, introducing definitions of the word, and covering first words, then compounds, and compound types found in the two languages. Thereafter a short section on tone in Namagowab which is the dialectal focus of the dictionary to explain something of how tone affects compounding morphology. I use the name Namagowab rather than Khoekhoegowab when discussing detailed linguistic features like tone and affixation as there is some variation between the recorded Khoekhoegowab dialects. The section after that moves on to lexical semantics, and for the greater part supports compositionality, or the principle that the whole is the sum of its parts in terms of meaning or structure. It covers a broad theoretical spectrum. The last part of the literature review features more unorthodox approaches arguing for the lack of compositionality in words, and focusing on cognitive theory. After that I will outline my methods, which are based on manual Excel tabulations of selections from the English and Khoekhoegowab dictionaries, analyzed by word type, class and some semantic and structural aspects. Then follow the results and discussion and lastly there are suggestions for future research.

2 A brief background of Khoekhoegowab and English and assessment of the Haacke - Eiseb dictionary

2.1 Historical context of Khoekhoegowab in South Africa, historical depth, and colonial persecution and genocide

Prior to 1652, when the VOC founded a refreshment station at the Cape, the area surrounding the Cape Peninsula and the south western parts of Africa were occupied by Khoesan people of various language groupings. Between that point and the distribution of the languages today, inferred from discussions on the Khoekhoegowab dictionary, and the following histories, lies a very ugly history. It is the story of European domination by mercantile interests, armies and settlement, involving the systematic attempt to destroy groups of people whose ancestors, in direct lineage, may have been in this locality since *Homo sapiens* first appeared on earth. It is a shocking story to which I can only allude, describing the social context for these languages, before moving on to the dictionary study, and I apologize for my brevity.

My project focuses on Khoekhoegowab, which includes Nama and Damara, with respect to the dictionary, and various mutually intelligible dialects of southern Khoekhoe with respect to history.

The naming of the Khoesan group and its linguistic nature, and theories on ancestral languages within the group, the populist division into the Khoekhoe and the San groups of people and their purported cultural differences are all controversial, and I lack the space to address these controversies here, which are peripheral to my study. I accept the authority of du Plessis (2009) on the numerous signs of linguistic influence and confluence in South African Khoesan varieties, which I believe is due to the historical depth of being resident in this region, and that is sufficient for my thesis.

The occupation of the Cape by Khoesan people seems to have no clear starting point. According to Kim et al (2014:1) Khoesan people have been the largest group on earth through much of modern human demographic history after they split from other groups 150 000 – 100 000 years ago. The Namibian and South African branches separated 40 000 to 25000 years ago, and a possible migration introduced Mediterranean genes into the Khoekwadi group, the ancestral language group of modern southern Khoe, some 3000 years ago, before contact with European colonizers (Gibbons 2014) (Brahic 2014). There is a speculated Afro Asiatic connection at some point even further back in the past, accounting for cultural similarities in milk production, and a genetic adaption to milk in the diet that is only found here and in the Horn of Africa (Blench 2009:46).

However, I wish to bring up an idea relating to the long history which is relevant to the development of a lexicon. The starting point of language development in Southern Africa may lie in very deep history, in global terms. I would never be able to claim that any Khoesan language as such goes back that far into history, but what does certainly have very ancient roots is the knowledge of, and the economic use of this region and the creation of vocabulary to describe it. One would expect languages inheriting something from such a deep history in any region to have very rich vocabulary describing the region, and for successive languages to have borrowed or acquired by descent, some terms from older languages, such as in terminology for water, in Khoekhoe languages 'the most important geographical element in descriptions of landscape' (Guelke and Shell 1992:3).

Comparing the colonial history of Khoekhoe people in the Cape and in Namibia and Namaqualand, the easier access to guns and horses seems to be a critical factor in language preservation. In the 17th Century Cape the imbalance of fire power between invaders and indigenous people had devastating consequences. But the Oorlams (A name given frontiersmen who had left the colony, descended by and large from the original Khoekhoe of the Cape) and guerilla soldiers of the 19th Century had more effective means of pushing back against or avoiding colonization. Despite this, genocide was perpetrated in Namibia by the colonizers in the early 20th Century.

The Khoesan at the Cape lost their land to the Dutch despite their resistance. I will pick out only a few points in the story of violent contact from Nigel Penn's (2005) *Forgotten Frontier*, a history of the Northern Cape frontier. In 1510 local fighters conquered a group of Portuguese soldiers, killing the Viceroy of India, Fransisco D'Almeida on the shores of Table Bay, which may have discouraged Portuguese colonization. After the Dutch settlement in 1652 came the 1st Hottentot war in 1659-1660, initiated by the Goring-haiquan and Gorachouqua (Elphick 1977:91), or Peninsulars, against the Dutch and which left the land in the hands of the settlers. In 1673-1677 was a protracted campaign of Dutch retribution against the Cochoqua. In 1699 WA van der Stel's opened the stock trade causing rapid expansion of the colony. 12 incidents of Khoesan resistance in Waveren (Tulbagh area) were reported in 1701 (Penn 2005: 31-38).

According to VOC records, intense commando activity persisted till 1760, as Khoekhoe land was invaded and their cattle taken. Any resistance was quelled by commandos of armed and mounted farmers. If the Khoesan did not escape into the mountains, they would be left starving without their cattle, or massacred, 30 – 200 people at a time, or taken as servants. In 1739 came the most intense Khoesan backlash yet to the Boer occupation of the Sandveld, and in the 1780's the San of Bushmanland and the escarpments halted northward expansion of the frontier for over half a century (Penn 2005: 60-167).

The British introduced the Caledon code in 1809, (Penn 2005: 269), requiring all Khoekhoe to carry a pass to travel, and in 1812 came the compulsory apprenticeship of Khoekhoe youth.

According to Penn, the Oorlam groups moved to avoid subjugation, absorbing the Einiqua, Korana and other groups on the Orange river, later to be dispossessed by Boer advances. By the 19th C expansion of the frontier had driven some Khoekhoe north and into present day Namibia. The San retreated into Bushmanland and were persecuted to the point of extinction (Penn 2005: 283-287). By 1861, it is estimated only 500 San were left alive. A few joined the Korana uprising of 1868.

2.2 Issues of mobility

The explanations we see for the apparent disappearance of the Khoekhoe at the Cape were the loss of water resources (Guelke and Shell:1992) the smallpox epidemic spread from a Dutch ship arriving in 1713 (Ephick 1977: 231-234), genocide (Penn (2005), Elphick (1977:238)), moving away (Penn (2005)) and language shift to Afrikaans which is readable from Elphick (1977) and Penn (2005). It appears that the violence and structural racism of contact and later oppression are not given enough weight and I concur with Elphick (1977) and Marks and Shell (1972), (Marks (1972) in Guelke and Shell (1992?))[i], that the plagues introduced by Europeans pale in comparison. The survival strategy of mobility has linguistic importance.

2.3 A short history of Namibia

While the San and Damara (Gockel 2000:99) were reputedly the first inhabitants of Namibia, the Nama pastoralists (a sub group of Khoekhoe) entered the region around the first century BC, at the same time as Khoekhoe entered South Africa, and migrated along regular routes with their herds for the next millenium. Haacke put forward the hypothesis (Haacke 2008: 164) that the distribution of forms closest to the ancestral Khoekhoe language, for example in Naro, being on the eastern periphery of the language's distribution (in the Kalahari) show westward expansion. Investigation of linguistic origins in the deep past is in its infancy, claims Haacke.

Olusoga and Erichsen's focus in *The Kaiser's Holocaust* (2010) is Namibia's colonization by Germany. Leading up to this, in the early 19th century the Oorlams entered Namibia, missionaries followed in 1806, copper mining in 1850, the British occupation of the Walvis Bay islands in 1867, and the purchase of land in Lüderitz Bay by a German salesman from the Nama chief Joseph Fredericks in 1883 (Olusoga and Erichsen 2010: 30) culminated in Bismarck declaring a German protectorate a short time later, and negotiating the borders of today's Namibia with other European powers in Berlin.

Hendrik Witbooi the erstwhile ‘terror of Hereroland’ according to Gustav Voigts’ introduction to *Die Dagboek van Hendrik Witbooi* (1929:p. ix) negotiated peace with Samuel Maherero in 1893, to fight the occupation together. Witbooi was multilingual and spoke fluent Namagowab. His diary and letters give voice to resistance to colonialism of which records at this time are rare, globally (Olusoga and Erichsen (2010: 49)).

In 1904 German troops drove the Herero people into the desert to die. Concentration camps were established at Lüderitz, Swakopmund and elsewhere. Herero and Nama survivors were tricked into boarding transports bound for these death camps. Overwork and poor nutrition and sanitary conditions killed the prisoners who were buried in mass graves in the desert. Some bodies were traded for collections in German Universities and Museums (Olusoga and Erichsen 2010: 231-235).

From 1907 I use other texts, deducing missing parts of the narrative. The survivors of the genocide were ‘resettled’ in reservations (Humboldt 2000 :140), denied ownership of land and cattle, making way for white settlement of Namibia. In WW1 South African and Angola declared war against Germany, and subsequently Germany lost all colonial property, ceding SWA to the League of Nations, and in 1920 to South Africa, who were bound to supervise the economic development of the country. But SA considered Namibia a colony, pressuring blacks into reservations, and encouraging whites from S.A. to settle in Namibia (Katjavivi, P. 1988:557-583).

In 1922 the Bondelswarts uprising was quelled by S.A, taking more than a hundred people lives. In 1924, the Rehoboth Baster demanded a return to the relative autonomy held under Germany. Six hundred people were arrested, and the government of Rehoboth abolished. In 1946 Jan Smuts wanted Namibia incorporated into South Africa, and was refused. A repetitive pattern of UN judgments rejecting SA’s demands, which SA ignores, imposing apartheid on Namibia, as well as failed negotiations with SA become the norm till liberation forty three years later. In 1964, SWAPO called for armed struggle. (Katjavivi, P. 1988:557-583) and in 1988 Angola demanded Namibian

independence as a condition for the withdrawal of Cuban troops. SWAPO won an absolute majority in the ensuing elections, and a democratic constitution was passed.

2.4 The situation of Khoekhoegowab in South Africa and Namibia today

The spread of the Khoekhoe languages today is a result of this region's history and political economy. In Namibia, Khoekhoegowab is resilient. According to Mr Dausab, a high degree of multilingualism is the norm especially in churches (Dausab interview:17.39 minutes) where Khoekhoegowab proficiency is a must, and Nama-Damara is thriving. For the youth in school hostels, where most children speak six or more languages (Dausab interview: 12.33 minutes), Afrikaans is the lingua franca. Khoekhoegowab is found in many domains including university subjects, multi-lingual preaching, local schools and journalism. Fredericks (2010: 23) studied Nama speakers in Keetmanshoop (Namibia), and found the language not to be in danger of extinction as originally proposed.

In the Cape, the South African Khoekhoe varieties such as Xirigowab appeared extinct by 1721 (Elphick, 1977: 234). However, linguistic records of surviving Griqua speakers in the early 19th and 20th Century (Beach (1938)) and recent recordings of Korana survivors (Du Plessis and Namaseb field trip 2008) relativize this information. Namagowab is still spoken in Namaqualand, and there is enormous interest in the revival of Khoekhoegowab in Western Cape region. This is often attached to black consciousness ideology and past resistance to apartheid (PhD seminar at UCT by Justin Brown (2014)). Pedro Dausab and Bradley van Sitters played a major role in language revival and Bradley teaches Khoekhoegowab regularly, incorporating discussions of identity and history:

'This is the place of worst cultural devastation.. because of the colonial bomb …in 1652 … for me this language is part of my healing process… the medicine for the people'

(Van Sittert interview 30.20 minutes)

2.5 Language practitioner feedback on the Haacke Eiseb dictionary

After hearing academic discussion of the Haacke Eiseb dictionary as a 'colonial document', I was surprised at positive feedback from the language practitioners (rough interview transcriptions in appendix). Both emphasized the dedication and time involved (Dausab 1.12 minutes), (Van Sitters 19.11 minutes) and the mastery of the authors Eiseb (Dausab 12.22minutes) and Haacke (Van Sitters 09.34-13.44 minutes). However, they regretted lack of broader participation in its creation. Dausab felt pastors speaking different varieties (04.33 and 12.22 minutes), older people in the Richtersveld (18.21 minutes) and youthful speakers at Riemvasmaak (05.09 minutes) could have contributed. Much idiom, new and regional variation did not reach the lexicon (Dausab 16.40, 18.21 minutes), with emphasis on Damara vocabulary (04.32 minutes). It should have been Afrikaans-Nama not English-Nama to be more useful to native speakers (Van Sitters 02.57 minutes), with standard orthography (Dausab). However, tone analysis in the Haacke-Eiseb dictionary was useful for second language learners (Van Sitters 17.06 minutes).

Both articulated exclusion of communities and informants by linguistic research (Dausab 09.39 minutes), and lack of appropriate recognition from academics. Oom Jantje Koe, a herbalist from Andriesville has been interviewed by countless researchers, yet lacks any kind of honorary certification that he is a 'knowledge holder and expert (Van Sitters 22.13 minutes). I find this lack of appreciation of their 'data sources' by academics shortsighted, indicative of the devaluation of indigenous knowledge, leading to economic devaluation. Dausab, who worked at length on the dictionary editing, blames the incompleteness of the dictionary and the failure of other projects on poor funding (Dausab 01.12 and 23.02 minutes).

The criticism and suggestions of the language practitioners raises points which could be remedied. As Dausab says (12.31, 17.40 minutes) Nama has a huge vocabulary. I feel that leaving out highly productive word formations from the dictionary is misguided. Taylor (2012) posits that nothing in

language is truly regular and predictable. These spoken forms need to be recorded, for teaching language mastery, and the historical record. The dictionary making process has only just begun.

I suggest tentatively that under the pressure of oppression and colonization at the Cape, either linguistic mobility in switching to Dutch, later Afrikaans, or physical mobility, migration to the north, were possible coping strategies and physical migration improved the likelihood of language preservation, as evidenced in the loss of indigenous Cape languages in Cape Town, compared to language survival into the early 20th C further north, seen in the records of Beach (1938). There must have been a very extensive period of lexical invention to accommodate the need for new vocabulary to describe new life ways and technologies. According to Dedering (1997: 14-16) there was a major economical, cultural and religious shift in Nama life in Namibia in the early 19th C due to contact with Oorlams, missionaries and markets. The signs of a lexical creation boom in Namibian and South African Khoekhoegowab may lie in compounding, concealed by a dearth in documentation. I found isolated illustrative samples in Hagmann (1977: 29): such as *!xoo'oms* (*catch house* or gaol*)* ǂ*'oakunis* (*wind wagon* or aeroplane) ǀ*'urihaap* (*iron horse*, or bicycle). In our present era, it appears lexical invention is well known among the youth in areas like Riemvasmaak (Dausab 05.09 minutes).

2.6 A brief history of lexical creation in 14th Century English

In Early English, the diversity and effects of colonial history have been studied extensively, and shed light on the lexicon and morphology, making a brief sketch of this history necessary.

Roman troops withdrew from Britain in the late 5th C, but by 452 A.D. the country was recorded in the *Chronica Gallica* as being under Saxon rule, a Germanic group dominant in the south eastern lowlands[ii]. In 1066 William, Duke of Normandy, laid claim to the British throne, partly replacing the indigenous nobility and confiscating their land. French was gradually assimilated.

After 800 years English still is 'flavored' by the opposition of short Germanic and long Latin based words (Tuggy (2006:261)), which are easy to recognize. Zero derivation is another dominant trait,

pointing to a history of language mixing as in pidgins and creoles. Platt, Weber, and Ho (1984) (Chapter 1), give an overview of the history and spread of English, and Lass (1992) of the development of English vocabulary.

Today English is a global lingua franca of science (Taavitsainen and Pahta 2004: iv) but once it had no intellectual status, was unstable, extensively mixed with and dominated by other languages in the aftermath of its own colonization. In the 9th to 11th centuries, Latin was the lingua franca of church, government and learning and the standard of literary excellence. However there was vernacular non-theoretical popular writing in old English at the time (Taavitsainen and Pahta 2004: 8).

After the Norman conquest French spread in law, education, literature, administration, commerce and communication between the upper classes. English was used only in casual, domestic domains peripheral to literature, where it showed mixing of languages (Taavitsainen and Pahta 2004: 10) ensured by a complex multilingual social context with Latin, French, English and Celtic, in descending order of prestige (Taavitsainen and Pahta 2004: 8). The use of French peaked only 200 to 350 years after the Norman invasion (Jespersen, Coleman (1995) cited by Norri in Taavitsainen and Pahta 2004: 112).

But concurrently, professional writing in English started in the 1390s (Taavitsainen and Pahta 2004: 10). The Lancastrian monarchs[iii] (Taavitsainen and Pahta 2004: 10) promoted the use of the 'national' language, and the vernacular reached a broadening range of genres. English texts, increasing from 200 in the 14th to 8000 in 15th century, were mostly translations from Latin, yet by 1475 there was original science writing in English (Taavitsainen and Pahta 2004: 12).

The use of vernacular produced new medical (Norri in Taavitsainen and Pahta 2004: 100) and science vocabulary. The greatest lexical expansion in the history of the English language occurred in medical terminology from 1375 – 1400 A.D. In a modern medical dictionary, many head words date

from this period (Norri 2004: 110). Popular demand and writers who knew Latin drove book production, as did the three Moulton brothers who were monks (Taavitsainen and Pahta 2004: 17) [iv].

Pahta and Taavitsainen show that 'the scientific register was created …… at a time when no national standard … existed' (Taavitsainen and Pahta 2004: 3). English consisted of a patchwork of local dialects (Taavitsainen 2004: 209). The growing demand of the translation industry challenged translators to 'find words to express concepts …which had no conventional English equivalents'… 'adopting a foreign word or coining a new one' (Norri 2004:108), (Pahta and Taavitsainen 2004: 2,3), (Knowles (1997: 69) cited in Norri (2004:100)) [v].

The actual processes of creation varied. 'Decisions were made at several levels… involved conscious choices' (Pahta and Taavitsainen (2004:2,3)). Vocabulary creation didn't happen naturally. Translators could retain the Latin form, modify it, produce a vernacular translation, or create a neologism (P.C. with Sean Bowerman 2015). In this situation of language dominance one expects imitation of the Latin would be more likely. However, many metaphors [vi] and coinings rather than classical borrowing became a feature (Norri 2004: 115). In the boom from 1375 to 1400 hundreds of new lexemes entered English (Taavitsainen and Pahta 2004: 129). Most did not survive (Norri 2004: 137), only 44% surviving post 1550. This rapid 'death' of vocabulary afflicted mainly technical Latin originals (Norri 2004: 130).

The sources of medical terms were not only Latin and Greek, but far more varied than today, including non-classic languages and the extension of non-medical terms through metaphor, metonym, specialization and using various techniques of word formation (Norri 2004: 137, 129). Native suffixes predominated, seemingly less demanding. The commonest was – *ing*, used for nominalizing verbs. *Poisoning* dates from this time (Norri 2004: 119). Other suffixes were –*ness*, in *bareinesse, goggelizednes* (squinting) and *dedenesse* (numbness). Compounds show degrees of fusing: a locative particle first in *upspewing, uppesething* (nausea) (Taavitsainen and Pahta 2004:

123), a modifier first in *small pockes* (Taavitsainen and Pahta 2004:127) or word pairs in *shoulder joint* (Taavitsainen and Pahta 2004:10).

Dialect leveling after 1525 permeated English with 'colourless language that muted local elements', attributed to the proliferation of grammar schools (Taavitsainen 2004: 209).

The next three centuries brought on four English diasporas (Kachru et al. 2006: vii-viii) and English's global power. Many regions have had English leave its influence and have influenced English (Crystal 2003:4-5, 29-59), due to British colonization at some point. By the 19th Century, English so dominated America that most immigrant families acquired first language English by the second generation (Crystal 2003: 35). By means of WW2, the US' status as superpower was established (Nissen UCT 2008: Lectures in Economic History). American domination of media, music, airlines and shipping language, science, computers and religious evangelism make English necessary. It has become a lingua franca on the internet, in global organizations and an interlingua, or language interface between other languages for translators, in the EU (Crystal 2003:88-89).

2.7 Conclusion on the effects of this Social History on Language

The English lexical boom in the fourteenth century confirms, and it can be surmised in the case of Khoekhoegowab that lexical invention is driven by a need arising in the contact of cultures and languages for new terminology, and can be accelerated by text production.

We can observe that social history impacts on the use of language. The Latinate languages and linguistic domination by England's colonizers had effects which lasted for centuries, but a government's real support of a language variety can have growth effects which are also felt for centuries.

I suspect that millenia of residence in the south west of Africa will have produced a finely nuanced Khoekhoegowab vocabulary completely descriptive of this region and the exploitation of its unique environment. I also suspect that adding to this vast locally adapted lexicon, a lexical creation boom has been occurring in the language over the last three centuries to accommodate the demands of language contact, social upheaval and technological development, and it probably favors compounding within the vernacular.

3 Morphology outline

3.1 Word definition

Considering the subject of this thesis it is important to clarify what a *word* is, explaining how it can be distinguished from an affix, a phrase, an idiomatic set of words or a sentence, in short, to define its boundaries. To do this, definitions propose its relative independence or the ability to stand alone in answer to a question, freedom of combination with other words, positional mobility (within a sentence), internal integrity which includes uninterruptability, internal stability (internal order fixed and non contrastive[vii]) (Bauer 2003: 63) and category stability, and specialness, including special meaning and special phonology. These criteria are not universal (Bauer 2003: 65). The only test Bauer finds useful is the admissibility of the omission of constituents[viii], based on omission of affixes in repetitions not being allowed, while that of words is permissible. Let us take a closer look at some arguments.

The word as a minimum free form

Bloomfield's term *minimal free form* meant the smallest unit which can 'stand as an utterance', (Bauer 2003:61) as in "*under !"* to answer to the question: "*Did he go over or under the bar ?*" but with the caveat that it isn't universally applicable. I think that affixes can behave independently, for example: *"Did you say undone or redone?"* answer: *"re !"*. Perhaps a content question is a better filter than Bauer's test: *"How did he pass the fallen tree trunk ?" "sideways*" is a possible answer, but to "*What has he done to the button ?*" the answer "*un*" isn't possible. This condition also excludes functional words like *the* and *must* (Bauer 2003: 62).

Bauer criticizes the other part of Bloomfield's definition, namely that a minimum free form should not be made entirely of smaller units which can stand alone, because it unfortunately excludes compounds (Bauer 2003:61) such as *chopchop* and *cartwheel* and *áráxárá* (a. stark naked or blaspheming embarrassingly) and *ommâi* (v. to erect a monument) in my wordlists.

The word as freely combinable

Taylor (2012: 32-33) argues against the claim that words are freely combinable, saying there are many items that would be classified as words which do not associate or combine freely, but are tied into strong collocational relationships, such as *endear* (on the wordlist), which is grouped thus: *Name of person or group doing the endearing + endear + reflexive pronoun (referring to the person doing the endearing) + to + name of individual or category of people being endeared.*

The word has internal integrity

The contrast to a word's external freedom, is its lack of internal freedom, known as internal integrity, making it uninterruptable so that nothing can be inserted within its boundaries. Bauer merely claims uninterruptability is not universal (2003:65). Alternatively, Taylor, whose writing will be covered in Chapter 5, insists on an interruptable internal structure (Taylor 2012: 32-33) although he admits the word as an entrenched phonological unit (2012:130), and interruptability contradicts unity. Many German compound verbs have porous boundaries, such *absteigen*, which is conjugated thus in the past: *Der Mannschaft ist abgestiegen* (the team was relegated) or in the historic past can be split by an adverbial phrase: *Der Mannschaft stieg im dritte Saison wieder ab* (The team was relegated again in the third season).

All the English compound verbs can be interrupted by internal inflection for simple past and the nouns by irregular plurals, for example*: cave in > caved in , shake hands > shook hands, car man > car men.* The independent parts within the compound still remain category stable, thus the degree of semantic internal stability is still high, which is not a problem for internal stability (PC Sean Bowerman October 2015).

The word has category stability

Internal stability would require maintaining category stability in a structuralist model, as alluded to by Sean Bowerman (P.C. 2015). Whereas my English sample is replete examples of flexible

category: noun - verbs: *dish, end, piece, disgust, disguise, disgrace, curve, curtsy, curtain, curry, meaning, burden, gall, damage, clap, belch, ending, being, belay, hamper, undress,* noun - adjectives: *endemic, current,* preposition - noun: *behind,* and preposition - noun -adjective: *in,* it was hard to find a word in my Nama sample that fitted into more than one category. In Nama the category is usually overt. Namagowab affixation but especially derivational affixation, and even more so noun derivation with gendered suffixes, is frequently used (see frequencies Appendix 12.02 and wordlists Appendix 18), to a much greater degree than English, and if the category changes, these are likely to change, even if the encyclopedic meaning after nominalization is less predictable. Below is an illustration of the effect of suffixation on a root and on its compounds:

ǁ*gawa*	*peer into distance*
ǁ*gawa*	*hurt accidentally*
ǁ*gawe*	*hook, pull down*
ǁ*gawi*	*turn green*
ǁ*gawan*	*weapons, tools*
ǁ*gawas*	*palm*
ǁ*gawa khau*	*flame up*
ǁ*gawe‡ae*	*pointed upright ungulate ears*
ǁ*gawarab/s*	*caul*

The implication of the regular Namagowab derivational affixation, is that there may be many roots which have unclear category and are clarified with affixation. In English most of my list had fixed category, with relatively narrow ranges of meaning: *chapfallen, apology, apostate apiculture, apices, apish, apocalypse, apocope, apocrypha.* This does not disagree with Marantz' claim that words consist of bundles of features (Marantz 1997:3) or Spencer's proposal that they are categorized into classes by their internal features (Spencer (1991:69) after Chomsky (1970)), or even with the argument that they are categorized into classes by use Taylor (2012:33)) if lacking overt derivation.

The word is classified by use, without category stability

Taylor asserts that words are classified by contexts of use, and though English multiple category words may lead him to think so, it does not appear apt in Namagowab, in which the noun category is made clear with overt morphology, and polysemy involving different word classes is not common,

and tone is used to further differentiate. This is a challenge to the contexts of use argument being applied generally (P.C. Sean Bowerman 2015).

Specialness

Judging from the context in which the word 'special' occurs, special meaning is equivalent to 'encyclopedic' meaning. Special meaning is supposed to distinguish words, but the internal and external boundary of specialness is questioned. Marantz (1997:13) believes only roots have special meaning, and Jackendoff (1996) cited in Marantz (1997:7) saw no hard boundary between the special meanings of words and phrases.

There is more concurrence across authorship that words have phonological specialness, but specialness has a different meaning in this case, more like markedness. Phonological identification of words is language specific, but most frequently accomplished by unitary stress, marking the word core, and vowel harmony (Bauer 2003:58), in which vowel similarities identify the word (Bauer 2003: 59). But vowel harmony rules out compounds, as it patterns to single not double words (Bauer 2003:61). In Namagowab tone perturbation distinguishes compounds from phrases (Haacke 1999). Refer for more information on compound phonology to section 3.9 *Special phonology*.

Writing

In Namagowab and English, words are generally written with spaces between them. In Namagowab words can vary from particles, monosyllabic words with short vowels like *ke* the declarative particle (see the end of the Appendix (Hagmann 1977:160)) to concatenations like *dâu‖gôaxa* (flow down towards speaker), consisting of *dâo* (v.i. flow, stream), *‖gôa* (v.i. descend) and *xa* (ventive verbal extension, towards speaker). The boundaries in English would be different, needing a separate prepositional phrase to convey direction, as in *flow down to X (speaker's name).* In English, adverbial and prepositional phrases would take the place of verbal extensions in Namagowab. The properties of nouns are most usually contained in one word, in both languages: *dom!nâb* (inside of

throat) made of *dommi* (throat, voice), *!nâ* (vt shine) and *b* (nominalizing suffix, masculine). But in English, if there is not a lexicalized nominalization as in *helplessness*, one would need a compound (or NP) like *inner-throat*, or expression exterior to the word as in *to catch* > *a catch*. English words can vary in size from clitics (word status debated) to multiple word concatenations like *Cape Town Science Teacher's Association*. The spacing issue is thus seen to be an artifact of writing that compounds highlight.

3.2 Compounds

Compound definitions

Compound definitions seem superficially similar. They are distinguished on the morphological level from other words by consisting of two or more words (Anderson (1992:292) and Fabb (2001:66)), two or more roots (Hagmann (1977:68), Harley (2004:3)), two or more lexemes (Bauer 2003:33) or lexical morphemes (Gaeta and Ricca (2009:43)). In Gaeta and Ricca's (2009:43)[ix] narrow definition, a compound has word characteristics such as unsplittability, and lack of internal syntax. In general, the sub divisions of the compound category vary across authorship and the delimitation of those concatenations recognized as compounds rather than phrases, is disputed[x].

In the case of Nama, and other agglutinating languages (see linguistic terminology in appendix), defining compounds as containing two independent words is not possible. Hagmann stipulates that they consist of two or more roots which must also occur alone within a word, (rather than as free standing words, which is the case with compounds in English) and have the same semantic value (Hagmann 1977: 69).

Formation processes in various theories and compounding

In this section we'll run through the descriptions of compounding and attitudes to the lexicon grammar divide in major theory groups. Compounds are useful to many theories, being seen as a

paradigm case of morphology as syntax (Harley 2004: 2) for DM and template use for cognitivism (Taylor 2012). But many aspects of compounding are specific to compounds, both phonological and morphological (Fabb: 2001:66). Marantz (1997:17).

3.3 Lexicalism

Lexicalism, as an area of theory separating lexicon from syntax is important to the subject of enquiry in this thesis. It comes under attack from many directions, especially Marantz and Taylor. The declared, but on examination less sharply delineated, points of difference are special meaning, sound and structural significance for words (Marantz 1997: 5-13). These attributes are actually the property of roots only (Marantz 1997:13). The Lexicalist idea of the lexicon listing everything that cannot be rule generated, is rejected in favor of another form of organization in memory by Taylor (2012:19).

Lexicalists often cite Chomsky, mistakenly attributing to him the notion that words are categorized by internal features and not by usage, and exemplified by this quote ‘Chomsky argued … that the idiosyncratic ... is in the lexicon ... derived nominalizations are morphologically, syntactically and semantically idiosyncratic ...’ (Spencer 1991: 69). A contrived interpretation claims Marantz.

Indeed Bauer justifies the separation of syntax and lexicon by claiming Chomsky (1970) showed that nominalizations were semantically and morphologically irregular and his theory required they should not change meaning and he thus concluded nominals should not be generated by ordinary syntactic transformations (Bauer 2003: 167). Therefore the rules of morphology are different to the rules of syntax (Bauer 2003: 168). Furthermore (Bauer 1988: 168) syntax makes no appeal to phonology, but many morphological rules first require phonological input to apply. Bauer asks why nominals cannot be captured in a morphological component of the grammar or a grammatical part of the lexicon, in both cases some form of generalization capturing the patterning would be needed (Bauer 2003: 170).

According to Halle and Marantz (1993), the Lexicalists like Lieber propose that the lexicon determines how bundles of morphosyntactic features will be phonologically realized, and produce the combinations of features that are the words operating in syntax, the affixless theorists see affixes merely as a byproduct of phonological realization, and the distributed morphologists (Halle and Marantz, Harley), separate the terminal nodes of syntax from phonological realization, through a divided or distributed lexicon (Halle and Marantz 1993: 111).

Lexicalist Theory on compounding

Spencer (1991:309) claims that *most* compound types are not constructed from syntactic rules though some authorship concedes that synthetics might be (Spencer 1991: 319). Actually the general consensus converges in the direction of syntactical operations for some compounds, making his statement that synthetics 'represent the morphology syntax interface par excellence' and that there is no satisfactory way of separating a compound and a phrase, and determining if it is morphology or syntax (Spencer 1991: 309) less startling.

Indeed compounding resembles syntax in being recursive and bracketing in a way that alters meaning, not the case with affixation, and has a semblance of head-modifier relationships (Spencer 1991: 310). Williams' (1981) right hand head rule states that *all things being equal*, the head in English words is the element on the right hand side (Bauer 2003:181). Bauer disagrees (2003: 181, 182), based on the fact that there are many exceptions. Spencer's assessment is also qualified, stating that it is true in English, at least sometimes (Spencer 1991: 321).

To others, the strong cohesion of compounds appears more like morphology. Fabb (2001: 75) claims some generativists see a predicate argument structure, but he denies the involvement of syntax, because compounds are too insensitive to constituent structure, relatively inert, without movement. Although Roeper and Siegel (1978) (cited in Fabb 2001:82) developed a transformational rule for the formation of

synthetic compounds, it soon ran into problems he adds. Admitting that incorporations, and perhaps synthetic compounds have inner structure visible to syntax, and some form of theta role assignment, he yet finds that their fixed meaning, their appearance as lexicalized phrases, speaks against their possessing syntactical structure.

For Bauer, like many other morphology theorists, whatever their leanings, compounding lies between two models of formation. The morphological explanation is justified by properties creating vocabulary, requiring learning as units like other lexemes and naming rather than describing, which is the function of syntax. A syntactic resemblance is in the productive process, instantly coinable and mostly analyzable, and in the sequences of lexemes, all such usually concatenated with syntax, excepting idiom (Bauer 2003: 135). To me these attributes are all secondary symptoms, or signs of the we way we have set up and defined syntax and morphology, and have nothing to do intrinsically with syntactical or non syntactical properties, and involve circular thinking.

Furthermore opines Bauer, there is the meaning equivalence with phrases, for NN compounds and Adjective-NP combinations, like dog house and dog's house, and the interfixes in German being historically derived from allomorphs of the genitive morpheme point to syntax (Bauer 2003: 136). Based on my knowledge of German, this seems more plausible than Anderson and Spencer's attribution of the German infix to special phonology. The last evidence (Bauer 2003: 137) is that there are compound prepositions but no prepositions created or altered by affixation, except by conversion. Finally, Bauer (2003: 186) finds it possible to assign a branching binary structure to English words and gives an example involving whole words and affixes[xi].

The parts in this concatenation process can be further analyzed into groups of features, of which only a subset dominate in the blend. Lieber's fourth feature percolation convention shows that in English compounds features from the right hand stem percolate to the dominant node (Spencer 1991: 323). In Bauer's similar feature percolation model for endocentric compounds, the head's semantic and

grammatical information applies to the whole compound. In German compounds the head determines animacy and inflection (Bauer 2003: 176). All the daughter's features are available to the mother node by upward feature percolation, but the features of the head dominate in cases of conflict. Here – masc, - fem denotes neuter, the third possibility. Exocentric compounds do not conform, but Bauer explains that they are assumed to be lexicalized (see linguistic terms in appendix), and no longer involved with productive rules (Bauer 2003: 179).

Butterbrot

+noun

-masc

-fem

-animate

etc.

+noun	+noun
-masc	-masc
+fem	-fem
-animate	-animate
etc.	etc.
Butter	**Brot** (Bauer 1988: 178)

The availability of features to the blend in this example includes elements of encyclopedic meaning from both daughters, as *Butterbrot* (slice of buttered bread) is buttered type of *Brot* (slice of bread).

On the rules of concatenation in compounds, Spencer (1991: 322) remarks that Selkirk uses phrases structure rules, (assuming right headedness), so little difference he sees between them:

N > [N, A, V, P] N,

A > [N, A, P]

A, V > P, V (Selkirk 1982:14-16)

Previously we Spencer referred to the difficulty of distinguishing phrases and compounds. Gaeta and Ricca (2009:38) use a four feature set to analyze existing compounds. These features are not encyclopedic, semantic or grammatical, but metalinguistic, assuming the reality of a lexicon to the degree that being inside or outside the lexicon is a feature. A true compound is :
[+ morphological], [+ lexical].

There are disagreements about headedness (Fabb 2001:295), (Anderson 1992:294,296), and consistent right handedness (Anderson 1992:294) but a near total consensus on the need for the different treatment of different compounds. The question is still open as to what form compounding or word formation rules take, if they exist (Fabb 2001:73), and to what processes the compound is transparent, that is what processes can act on the parts.

Many compounds exhibit irregular concatenation. It is difficult to establish boundaries between the special meaning in words, even in parts smaller than a word, like affixes, and that in multi-word concatenations. Some descriptions declare compounds unanalyzable and others syntactically structured, without special meaning, even in the same article (Marantz 1997). Perhaps the extensive palette of compound patterns available creates confusion on whether concatenation is regular or irregular, because of what appear to be exceptions.

Productivity

I think productivity as an idea allows one kind of organization of this conflicting information. Suffixation, then affixation and then compounding are the most common ways of forming new words (Bauer 2003: 49). But there are differences in productivity within these categories, which Bauer finds, answer many questions. He argues convincingly[xii] against those who dismiss productivity such as Halle ((1973) cited in Bauer (2003: 173)), Jackendoff (1975) who claimed it is rare (cited in Bauer (2003: 172)) and Aronhoff (1976) who described it as a once off state, occurring

during word formation only (cited in Bauer (2003: 171)). In contrast, for Taylor, idiosyncratic formation rather than productivity is dominant (Taylor 2012: 37) in language.

The reason productivity is not recognized may be that the regularity of productive word formation processes (Bauer 2003: 170) may be invisible. Productivity measurement relies on established sets of words and absolute prevalence, or the number of words a process produces in a particular grammatical category (Bauer 2003: 83). Prevalence reflects morphs that are generalized in the lexicon, representing not current but past productivity (Bauer 2003: 74, 75, 77). New words are coined all the time in the community and are not listed (Bauer 2003: 192). Dictionaries are also selective, influenced by the lexica of famous literary figures. All measuring of productivity is controversial (Bauer 2003: 72), but we can say one processes is more profitable than another. Consideration of a base's restrictions on combination (Bauer 2003: 84-85) or comparison with the productivity of other options possible in a particular context better reveal the degree to which an operation has saturated the set of possible words (Bauer 2003: 72, 84).

In a large corpus study of a decade of journalistic neologisms Bauer and Renouf (2001) plead that the reality of language reveals inadequacies of description in theory. This study is based on a group under pressure to entertain with words. As could be expected there are some highly deviant (from the compounds listed by Bauer in 1988:33-48) compound adjectives like *rumour-sodden* (Bauer and Renouf 2001:11) which serve to undermine word formation rules, according to Bauer. This shows that he assumes that for the recipients of his criticism the list of compounding formulae must be finite, or all is lost.

3.4 Affixless Theory

In Anderson's framework which he calls 'word based' (1992: 292) there are different sets of rules for different types of word formation processes. He concedes a quasi syntactic internal structure only

to compounds, the internal structure in other word types is motivated by phonology. As compound words with lexical categories are the output of compounding, there must be word structure rules that can develop these 'similar to phrase structure rules but different with regard to X bar theory' (Anderson 1992: 318).

Anderson explains that headedness, something that affixed words do not have, is essential to internal syntax in compounds, because a head is where the features assigned from outside will reside (Anderson 1992: 294)[xiii]. Then Anderson distances himself from syntax in compounds again, saying that word based morphology can account for problematic examples of compounds that appear to have structure, if one can allow for a class of rules that form compounds analogically, on the basis of other compounds, using the illustration of pseudocompounds with prefix *Sino-* (Anderson 1992: 298).

To obfuscate the matter further, there is an acknowledgement that other types of words may have internal structure, but only those with 'non-phonological internal constituent structure' (Anderson 1992: 318). He points out that compounds need not have heads (1992: 319), and regularities are not absolute. Although he previously explained that without heads they cannot have internal structure.

3.5 Distributed morphology (DM)

Heidi Harley's (2004:2-6) account of compound concatenation closely resembles Marantz (1997:3,4) on the formation of words. Abstract roots are the units of concatenation. They alone are associated with encyclopedic meaning (Marantz 2001: 3, 4), are acategorical, and attain category by merger below the word level on entering syntax, producing a null or overt feature bundle (Marantz 2001: 5). Terminal nodes, (generally semantic features) and roots *carrying* non grammatical, encyclopedic *content* are the output. The terms *carrying* and *content* are notable for a theory denying a container view of meaning.

Both roots and terminal nodes are subject to competition at morpho-phonological insertion, but this is less obvious in roots as they are usually realized by a single vocabulary item. Harley believes that compounds could form when root containing heads incorporate[xiv]. She is refering apparently to a lexicalized head-modifier relationship as incorporation. Another possibility is the fusion of sisters in syntax before vocabulary insertion (Halle and Marantz 1993: 136), including causative verbs formed by reduplication which should be treated not as a constituent copying process, but as affixation (Marantz 1982:436). A judgment later echoed by Haacke (1999: 133). The need for fusion is obviated by nanosyntax Pretorius and Oosthuisen claim but this seems like a dispute over terminology (2012:6).

Distributed Morphology (DM) and the lexicon

In DM the central idea is that syntax extends into word formation, and is the 'single generative engine' that precipitates the formation of sound-meaning correspondences, in Marantz' words 'destroying' the notion of the lexicon as well as lexicalism [xv]. He suggests that it is the different rules in the lexicon proposed by lexicalists which create the lexicon grammar division, but his position is not that clear, sometimes admitting different rules. Earlier theories exist that blurred the boundaries between grammar and lexicon. Jackendoff (1996) who saw no sharp divide between the special meanings of words and phrases, proposing that the lexicon include idiomatic phrases, is cited in Marantz (1997:4)). We saw elsewhere that Selkirks's (1982:14-16) compounding rules were modeled on phrase structure rules, and she also proposed structures such as Xbar trees ending at X_0, in other words, at word level, allowing a continuum between word internal syntax with a few restrictions, and word external syntax in the sentence. Marantz' description requires a complex subdivision of the lexicon and the word generative process and is described briefly in the appendix. Notably, Marantz and Halle require three lexica, hardly dispensing with the lexicon as vaunted by Marantz.

3.6 Nanosytnax and the lexicon

Nanosyntax appears to be similar to distributed morphology in some ways, projecting syntax into the subword level, and reducing nodes from 'lexical items' (though not roots as in DM), to syntactico-semantic and phonological features. For a lengthier description, see the term *nanosyntax* in the Appendix. Its proponents Pretorius and Oosthuizen (2012:439) criticize minimal syntax models for theorizing that the lexicon feeds into syntax, whereas they start with syntax and a set of universal features. They criticize DM for not explaining how feature bundles arise before spellout, but DM does explain this partially, and they accuse other theorists of having an opaque lexicon. During spellout in nanosyntax, a binary tree coming from generative processes must match with a tree in the lexicon that is linked to phonological and semantic features. This means that the lexicon has become transparent in nanosyntax, apparently, but no more information is supplied on how these lexical items arise than is supplied by DM. They also claim that syntax constructs morphemes from individual features, using a limited set of universals, but we will see the failure of semantic universals as an idea in Wierzbicka's theory. However, the decomposition of words into binary trees in order to explain more of the irregularities in morphology is an exciting idea, and the example used by Ramchand (2008:75) cited in Pretorius and Oosthuizen (2012) in which the word *break* is analyzed as a binary tree with initiator (external argument), process (undergoer) and result (RESULTEE) (Pretorius and Oosthuizen 2012: 435, 448) does appear to account for the irregular distribution of the verb.

3.8 Cognitivist Theory

In cognitive grammar (CG) different schemas may sanction the structure of one word, as constituent combination can be analyzed in different ways (Tuggy 2005: 257). CG is characterized by flexibility, whereas other theories of compounding use a building block, modular approach, and absolute conditions for what may or may not be in the hypothetical lexicon, he claims. People find meaning

relationships between any two things (Tuggy 2005: 258), there are degrees of dependence between the combined elements, from a head complement to a head-modifier relationship (Tuggy 2005: 259). The boundaries of the word are relative to perceptions: '..as long as …communication can take place…' (Tuggy 2005: 259)

Bauer (2003:280-291) contains a chapter on language and the brain. He is looking for theory which explains the limitations to the boundlessness of language. This is partly addressed by writing in German on natural morphology (Mayethaler (1988), Dressler (1985, 2000) and Worzel (1994) cited in Bauer (2003: 253-254)). However there is no consensus on what naturalness is. Some such as Zwicky ((1978) cited in Bauer (2003: 254)) suggest it is the converse of markedness. It makes strong appeals to evidence outside language, which Bauer considers with caution (Bauer 2003: 254). Bauer insists that whatever the mechanisms are, they exist and are constantly used, and this explains the productivity of morphological processes (Bauer 2003: 289).

The mechanism for change which Bauer believes is the most powerful is analogy, it can level irregular forms by assimilating them or do the reverse (Bauer 2003: 271-277) creating extra allomorphs, for example the verb *ring* used to be regular and has become irregular (Bauer 2003: 277). The mechanism of concatenation in cognitive morphology appears to be analogy. What Tuggy (2005: 248) identifies as schemas in the case of compounding are structures such as *food-noun* + *food-noun* which produce many examples such as *apple-pie, bean-soup* etc. The schemas themselves have different degrees of familiarity and recognizing a familiar structure as acceptable because we can identify its kind allows sanctioning of the schema (Tuggy 2005: 249). In CG everything is explained by sanctioning. Tuggy maintains that even the most productive schemas will only have a tiny minority of novel items (Tuggy (2005: 253).

According to Taylor the way that speakers transcend a particular schema is through generalization which allows them to creatively extend their linguistic performance by offering a template. The

productivity of a generalization is its ability to sanction new instances, which interact with entrenchment, a function of frequency. It has been studied in derivational morphology (Rosenbach (Taylor 2012: 285), and is extendable to syntactic rules (Taylor 2012: 142-145). This proceeds from a theory in which statistical prominence of a particular combination in a speaker's memory of instances guides a speaker's choices, to one in which a hitherto unencountered combination is chosen which must be statistically non existent before it is used, without any explanation but the vaguest terms expemplified here.

3.9 In what respects compounds are like words

Some of the word characteristics are not confirmable with dictionary data. Independence needs elicited discourse for the ommission test, uninterruptability and integrity would require all the variants in contextual use, and as as we saw earlier, German compound verbs can be split by adverbial phrases, so even this is not a sound measure of wordhood. Regarding freedom of movement in the sentence, I doubt that it is a strong criterion. A compound is freely relocatable in a sentence, it moves as a unit, but so does an Adj N combination. Certainly spacing is unreliable, sometimes compounds are written as separate words and sometimes not. Only the vague term specialness remains.

Specialness

The term 'special' is used frequently in authorship, but I was unable to source a linguistically specific definition in any of the four linguistic dictionaries in our library. Sometimes it appears to be equivalent to non compositional meaning (Marantz 1997:8), sometimes it is non compositional because it is not a concatenation in the first place, as with the encyclopedic meaning in roots (Marantz 1997:4), and sometimes it is close to the ordinary Oxford dictionary meaning connoting uniqueness of some attribute or thing to a group, as in special sound (Marantz 1997:5), or is termed 'idiosyncratic' word knowledge (Marantz 1997:6), or is 'meaning something' (Marantz1997: 8) and not meaning nothing ('some words

lack special meaning' (Marantz 1997:10)) . I am unable to attain a clear understanding of special meaning even in Marantz' text in which it is so frequently used. I think the point that Marantz is trying to make is that there is nothing, in terms of significance, allowing one to differentiate between subword, word and multiword structures as units.

Special phonology

The phonology in morphology is complex (Spencer and Zwicky 1998: 1-8), but to select points useful to this quest, phonology can mark a compound to distinguish it from a phrase, and mark its designation as a word, in English. Tuggy (2005: 260) insists 'many languages have phonological patterns that help define words' and there is much behaviour particular to compounding which seems to point to them being phonologically marked. There is primary stress in English compounds, and other languages also have special stress contours (Tuggy 2005: 255). Suprasegmental aspects of compounding found frequently but not universally are temporal reduction in the speed of enunciation, tone loss and the absence of affix nasalization in Dakota and Japanese Fabb (2001: 69). Some kind of marking appears to be a possible universal, for instance in Namagowab, the compound's unity is signaled by tone perturbations which are only found in compounds (Haacke 1999: 73). Confirming our evidence from Namagowab, Spencer observes that 'in other languages there are often sets of Sandhi rules which apply to compounds and to no other type of word formation or syntactic construction' (Spencer 1991:313, discussing Mohanan (1986) on the language Malayam). Furthermore, phonological processes apply to compounds that do not apply to phrases. Unlike phrases which have a right hand nuclear stress rule, compounds stress the left hand side, 'a true compound ...is stressed on the first constituent, like *black bird*' (Spencer 1991: 319). Phonologically, compounds appear to be 'special' as words are, but not completely like words either.

Special meaning

One of the essential definitional characteristics of words, was special meaning. Fabb wonders if compounding can create some kind of special compound specific meaning, or a more general kind of

meaning (Fabb 2005:82). Marantz categorically denies the presence of specialness in compounds. He defines the domain of special meanings, sometimes smaller than a word, sometimes larger, establishing that one boundary of special meaning is the syntactic head that projects agents (Marantz 1997:5), and on the other, roots. That only roots carry encyclopedic meaning is part of Marantz' theory (Marantz 2001: 3,4). In the middle of this size range are compounds. This would mean that projecting an agent could not occur internally to the compound, to make it part special, part not. Here 'special' seems to mean unanalyzable with grammar rules. Harley's statement that strings of words that are compounded are inaccessible to phrasal syntax (Harley 2004: 7) echoes this, but synthetic compounds like *truck driver* and *bird song* come to mind, they would have to be excluded, if one saw *driver* as a projected agent of *drive*, or *bird* as that of *song*, a little convoluted.

The way in which compounds are seen as different to words

Special concatenation

Some feel compounds are special in the way they concatenate, and Chomsky and Halle (1968) created a separate class for compounds (cited in Fabb (2001:79)). In Namagowab compound combinations are certainly capable of symbolizing grammatical relationships, for example reduplication signifying the causative form of a verb (Haacke 1999:133). Anderson (1992: 293) has persisted that there is multiple evidence for compounding being different to other word formation processes, seen in the independent lexical status of the components, the filling of argument positions in the semantics of the other element, and loop back, which violates affix ordering that is well motivated in non-compounds.

3.10 Some influences on changing word meaning

Compositionality and time

The compositionality of compound meaning is disputed by DM, yet partialy recognized by Fabb (2001: 66), whose statement that compound meaning is somewhat analyzable and compositional but

not predictable, could mean that the semantic contribution of constituents can often be analyzed after the fact of formation, but it is harder to predict the choice of constituents beforehand.

Taylor admits: 'Meaning often is not entirely compositional, but recognizing constituents allows cross referencing to their use in other constructions'. This enables generalizations because everything is motivated, or linked up with things already known (Taylor 2012: 284). This is expressly vague, but it could apply to compound compositionality.

After the additive process Aikenvald calls word formation (2007: 1,2), subtractive processes act on a word including demotivation (loss of compositionality), and semantic idiomatization (loss of semantic information (Hohenhaus 2005: 353-360)). No mention is made of the gain in new meaning, as Gaeta and Ricca do (2009:43), attributing opacity to the *addition* of information. In Soegaard's review of compounding theory it is interesting that he too equated the degree of adding features (Soegaard 2005:2) during combination with semantic opacity. The other mechanism, institutionalization involves acceptance in a community (Hohenhaus 2005: 353-360).

The origin of affixes in compounds

Sometimes elements are so frequent they are lexicalized as affixes, which may be the origin of many affixes, but these are hard to isolate in an agglutinating language claims Spencer (1991: 312-319). Notwithstanding this history can be seen in some Nama combinations in which a component's use outside compounding has ceased, and it only appears in concatenations, productive as they may be.

Resegmentation, grammaticalization, function change.

In time words can become derivational affixes such as those in childhood, cupful, kingdom, childlike. A word can become bound, as in the French future inflection of verbs like *chanter* (to sing). The suffix is identical to the present inflection of the verb *avoir* (*to have*): *j'ai, tu as, il a,* etc.

in *je chanterai, tu chanteras, il chantera*, etc. ‘Today’s morphology is yesterday’s syntax’ states Bauer (2003: 270). I’d agree, if this does proceed from a historical syntactic pattern.

3.11 Compound types

There are two dominant ways of categorizing compounds, used concurrently by many authors. The first uses labels based on the syntactical categories of the compound consituents, such as NN, NV (Noun-Verb) [xvi]. Spencer claims that only the major lexical categories are productively involved in compounding (Spencer 1991: 321). The other labels the relationship of the parts. The two major categories being endocentric and exocentric, with a set of subtypes with considerable overlap and or possible non compound status: dvandva, bahuvrihi, appositional, coordinate, synthetic, copulative, pseudo, reduplications, incorporations, neoclassical and so forth.

The productivity or presence of various compound types differs cross linguistically (Bauer 2003: 134), (Spencer 1991:312).

Endocentric Compounds denote a subclass via the properties of the modifier (Fabb 2001:67), of an item denoted by one element (Bauer 2003: 33). The compound is a hyponym of the head (Spencer 1991:310). Endocentric Noun compounds are common, Spencer (1991:322) lists some: NN (*housewife, shopping list*) AdjN (*bighead, postal order*) PrepN (*overcoat, underpass*) VN (*swearword, rattlesnake*).

XN in Namagowab are so frequent most are unlisted. The first is a verb, noun or adjective. The second component is always a simple noun giving animacy and gender, and a limited set of these are very productive, particularly */aus* (the manner) and *aop* (the man), used for naming professions, as in English, for example: ǁ*khā*ǁ*khā-aob* (missionary *watching-over-man*) *!ûi-aob* (shepherd *herding man*) (Hagmann

1977: 28). Combinations of adjective plus noun are not to be confused with compounds (Hagmann 1977:29). Nama is pre-modifying (Haacke 1999:119), probably creating confusion.

Special N compound in Namagowab can be XN or NN. Being much less productive, they will be listed as separate lexical entries. Many of the special N compounds were created post contact, such as *!xoo'oms* (*catch house* or gaol*)* ǂ*'oakunis* (*wind wagon* or aeroplane) ǀ*'urihaap* (*iron horse,* or bicycle) (Hagmann 1977: 29).

Synthetic compounds are described as having a head which is a nominalized verb, and another modifying component. Classic examples are *truck-driver* and *bird song*. Fabb (2001: 75) attributes a predicate argument structure to them, as they are directional, verb phrase analogous and assign theta roles.

NV in Nama are endocentric depending on their interpretation. According to Hagmann they constitute a small number of very irregularly formed, 'very metaphorical' compounds. Hagmann (1977: 71). In English they appear rare: *bike ride, bell hop, home run.*

Exocentric compounds are not hyponyms of either element (Bauer 2003: 33). Fabb calls them compounds which lack a head (Fabb 2001:67). Major subcategories are Dvandva, Bahuvrihi and others.

Bahuvrihi compound

Some of the names for compounds are Sanskrit names. Sanskrit is highly compounding and its linguistic science goes back to the first millenium BC authorship in India such as Panini[xvii]. Bahuvrihi means 'having much rice', denoting a rich person, an exocentric VN compound with apparent predicate argument structure, but no head (Fabb 2001:67). English examples are *pickpocket, lazybones, cut-throat,* Yoruba: (Bauer 2003: 33-46): *i-gba-le* (N: broom *sweep ground*). Though these could be seen as incorporations of the object which are excluded from compounds by some theorists. In 2001 Bauer and

Renouf describe the Bahuvrihi compound differently, as a metaphor describing a part or feature of the person/thing for example: redskin, egghead, in other words, a metonym.

VP in Nama with a simple verb root and a postposition are very productive in Nama. Nearly all combinations are acceptable, as long as they make sense, and only the very frequent or semantically unanalyzable are listed (Hagmann 1977: 70). English has related compounds like *throw up, cash in, run out.*

Dvandva compounds for Sanskrit 'two and two' or pair (appositional, co-ordinate (Fabb 2001:67), or copulative compound (Bauer 2003: 33), consist of two elements of equal weight, seen as double headed or non-headed (Spencer 2005: 310-311), either two synonyms, two antonyms or two parallel terms whose order does not change meaning eg: *greeny-blue* eg: *learner driver* (Fabb 2001:67). Different languages restrict categories, some allow only NN but English is free, (Fabb 2005: 67). Bauer (2003: 33) adds another sub category in which the order is significant: as in *Wellington-Auckland flight.* For those who find that in Fabb's examples the two components are not truly reversible, this new category, or a redefinition of the Dvandva compound are possibilities.

VV in Nama have special significance, constituting the majority of verbal compounds (Hagmann 1977:69), and reduplications having special semantics, signifying causation, pretense or the progressive (Haacke 1999: 133-138). According to Fabb (2001: 69), Steever (1988) claimed that reduplication is compounding. Haacke (1999:133) suggests it is a form of affixation. Unlike English, for example in *sleep walk*, VV compounds in Nama are so transparent and so numerous, they are not listed, despite the process not being completely productive (Hagmann 1977:69).

Pseudo Compounds have one element which is always bound, and unproductive, such as Sino in *Sino-American* or *cran* in *cranberry,* giving rise to the label cranberry morph, for these bound elements, though Bauer argues it is a reduction of *crane* not a unique bound morpheme. Unique

morph combinations are truly compounds as their bound part is unproductive compared to affixes (Fabb 2001: 69).

NN Pseudocompound in Nama

Hagmann (1977: 29) equates with pseudocompounds the NN compounds using highly productive roots, *!noa* (type of) and *haa* (and other similar things) eg: *adeledhaan* (Adelaide and co.). They bind more freely than pseudo compounds, but cannot occur unbound, behaving more like affixes in English. These roots have no lexical gender, and the resulting compound mostly indefinite gender, or the gender of the head.

Neoclassical compounds such as *geometry*, *geology* are not unique to English, but found in other languages with a mixed language history (Bauer 2003: 45), being new words coined with borrowed parts from archaic languages.

4 Typology and tone

Morphological typologies are not the only typologies, but the most frequently referenced, identifying isolation, agglutination and fusion in languages[xviii]. Bauer is skeptical about the usefulness of typology, which he describes in derogatory terms (Bauer 2003: 230, 232) as 'fraught with confused terminology, inconclusive results and the emotive appeals of linguistic imperialists' (Bauer 2003: 231). My critique of Aikhenvald's attempt at quantifying typology, a side issue, is in the appendix. In short, I believe attempts were made to lump attributes that are independent and do not affect each other.

In Tone Typology the most common binary is contour versus register tone[xix]. Daunmu (2004: 893,896)[xx] found these poor working models, and my reading supports this, as Beach (1938) and Haacke (1999) use opposing typologies for the same tone system, that in Namagowab. According to Duanmu (2004: 891), each language is unique in its selection of tone parameters. However there are some interesting, not always applicable generalizations[xxi] involving the correlations between syllable number in roots, tone systems and function and African and Asian tone patterns (Malmkjaer (1991:475), Pike (1948:3,5)).

4.1 Nama tone in the typological context

Tone is as vital as other phonology in tonal languages. Childhood language acquisition orders support the primacy of tone, which is mastered well in advance of segmental phonology, with high and falling tones being being learned first (Li and Thompson 1978:278).

As Duanmu argues, most tone systems have hybrid typologies. This would include Namagowab. Haacke's bimoraic tone melodies (Haacke (1999) *The Tonology of Khoekhoe*) conform broadly to Pike's description of an African pattern of tonality. Yet belying typological lumping, Khoekhoe differs from this pattern, and is more like a totally unrelated language, Chinese, in the extensive use of semantic tone. Many short monosyllabic roots are differentiated semantically by tone and monosyllabic affixes are differentiated in their grammatical function by tone. Here is an example of partial homophony with differentiation brought about by tone or vowel length in Nama.

-xǎ	*ventive verbal extension (causing bilateral flip-flop) denoting movement towards speaker,*
-xǎ	*adj. suffix, w. nouns full of-,rich in-: w. verbs keen/inclined to-*
-xà	*postp. From, of; by (w. passive): about*
xaa	*ideo. Denoting tearing noise of material,*
xáà	*attack/fall upon/assault/assail (in group, esp w. pincer move- ment) hem in, close in on, move in front to corner (game/fish) fig. tackle work jointly: play against smaller team);*

(Haacke-Eiseb (2002) and Hagmann (1977))

4.2 Nama morphotonemics and Nama roots

The compounds found in Nama are root combinations often with affixation, and tone perturbations which are largely derivational. Beach defines five root classes based on their phonology and formatives (Haacke 1999:9). Haacke makes this more regular, seeing only two patterns of roots in Nama, the grammatical formatives, which are disregarded as exceptions, and the rest, which all originally had two syllables (1999:13) (1976 and 1999) of the form C1V1C2V2. All exceptions are due to a historical elision process, based on Beach's (1938) decompositional theory cited in Haacke (1999:5-6). Tones are bound to segments therefore after elision of the epenthetic consonant C2 (see term in appendix), leaving a C1V1V2 pattern, forming double tones that sound like contour tones. The double vowels can be long or dipthongs, nasalized or not, depending on the elided epenthetic consonant (Haacke 1999: 5-6, 9-10). The interaction of these double tones confused previous researchers, such as Beach (1938) says Haacke (1999:9, 53). Beach's contour system is thus elegantly reconceptualized as a four tone register system.

Beach	**Haacke's one class (bimoraic) system**			
GRAMMATICAL FORMATIVES				
Class 1 usually single syllable CV form	C_1V_1 exception to bimoraic rule			
LEXICAL FORMATIVES/strong roots				
Class2 – monophthongs, eg: ʔā, sâ (drink/rest) C + long or long nasal vowel	$C_1V_1C_2V_2$	>	CV: CV	
Class 3 – dipthongs, for example: gao (rule)	$C_1V_1C_2V_2$	>	CV_1V_2	C + dipthong
Class 4 – vowel plus nasal consonant ǁan (know)	$C_1V_1C_2V_2$ *Nasal allowing loss of final vowel ?*	>	$C_1V_1C_2$	
Class 5 – VCV, eg: ʔari / ari (dog) koro (five)	$C_1V_1C_2V_2$	>	$C_1V_1C_2V_2$	

4.3 Tone alternation and compounding

There is very little alternation (alternative phonological realizations of a morpheme) in Nama, and much of that is tone perturbation (Hagmann 1977: 15), for which the rules are largely segmental. Unlike Bantu tone, there is no interference, no feeding and bleeding (see terms in appendix) no application of one rule governing the application of another, on post lexical tone (Haacke1999:106). Haacke's description of perturbed tone, characterized as an ablaut series (Haacke 1999:105), also depends on the tone pairs bound to the bimoraic roots. Misunderstandings of perturbation, additional to those on typology, led other authors to generalizations about patterning, such as Hagmann's (1977) statement [xxii] (Haacke 1999: 52, 105): 'the first root in the sequence is tonally unchanged, but in the second root the tones of both morae become slightly lowered middle tones'. Seen in terms of the markedness of compounds, they constitute use of special semanticosyntactic sound[xxiii] applicable only to compounds and are rule bound[xxiv].

We see that the boundaries of the roots making up the compound are penetrated by alternation, or one ablaut, at the same time as it marks the compound word. Perturbation and reduplication in combination with affixations such as verbal extension, make a significant contribution to a regular system in the semantics of Namagowab compounds, and the attributes thus marked, such as verbs of pretence, do not coincide with those marked by English affixation. A section in the appendix lays out Haacke's (1999) description of the derivational functions of tone perturbation in Nama compounds, too numerous to discuss here.

5 Theory on lexical semantics

For an overview of the history of lexical semantics, Geeraerts (2012) is the only author available at via UCT. I have accepted Geeraerts' historical framework, as extensive criticism would be a distraction. Fitted into Geeraerts' framework is further reading of my own. I looked at authors Geeraerts reviews, and some that were not well enough known .The topics were metaphor (Lackoff), meaning extension (Evans and Tyler) generative semantics (Pustejovsky) the atomization of meaning (Wierzbicka) and the dimensionality (Elman) of meaning, and subdivision of the levels of lexical processing (Marantz), blending (Fauconnier) and prototypes (various authors).

5.1 The epochs of lexical semantics

Geeraerts (2010) reviews lexical semantic theory of the last two hundred years, under the following periods: Historical-Philological Semantics (1830-1930), Structuralist Semantics (1930 onward), Generativist Semantics (1965 onward) and since the 1980's, two competing streams: Neo-structuralism, and Cognitivism. This grouping is extremely generalizing but Geeraerts does provide a useful historical framework for dealing with the enormous diversity of the theory.

5.2 Historical philology 1830-1930

Classification of word meaning shifts over time was the epitome of 19th C philology, when lexical semantics was first studied extensively. Researchers of the period appreciated the dynamic nature of meaning, encyclopedic knowledge, polysemy, and the relation of language to the mind (Geeraerts 2010:42-43). ,

Philologists created concepts such as the *Nebensinn* (or extra meanings) evoked by a word, the *Gefuehlswert* (value judgments) and studied social and communicative context. The19th C writing

covers connotation in great detail and analysis of 'the nyms'[xxv] was popular, for example in Carnoy's (1927) description of semantic relations cited in Geeraerts (2010: 26-40). Many early linguists had insights that appear aligned with cognitive, socio or integrational linguistics, for example in the criticism of simplistic notions of word meaning, as a container, preferring its conceptualization as a tool which requires polysemy and vagueness in the lexicon (Wegener (1855), cited in Geeraerts (2010:22)). Unfortunately much of this writing has been lost and one has to rely on researchers like Geeraerts.

5.3 Structuralism (1930 forward)

Leo Weisberger's (1927) vigorous attack on traditional historical semantics marks the end of the era of philology, and the beginning of structuralist lexical semantics according to Geeraerts (2010:26).

The new theorists rejected the diachronic and the psychological aspects of language and theorized language as a symbolic system, abstracted off other influences, leaning on Saussure, the arbitrary sign and synchronic perspectives. The way in which a language carves up reality represented a conceptual system. Language was not shaped either by reality or the human psyche, but constituted an architectural layer between the mind and the world that could be analyzed. Meaning was psychological and not worthy of linguistic study (Geeraerts 2010:43-51).

However, the exclusion of meaning creates more problems than it solves. If the sign is a unity of form and meaning, then there is no formal, syntagmatic or distributional difference, without difference in meaning (Apresian (1966), cited in Geeraerts 2010). Distributional patterning is not just explained with syntactic categories, but also a set of possible patterns. As early as 1935, Walter Porzig claimed that syntagmatic combinability has as much to do with sense as grammar, with his '*essential meaning relations'* or '*wesenhafte Bedeutungsbeziehungen'* Geeraerts (2010:5,58). But the

‘internal relationships within a field of contrasts were brought together most systematically by generative semantics in the 1960’s’ with Lyons, and Katz.

5.4 Generative Semantics

The transition from structuralist to generative semantics was in the early 1960’s. It incorporated structural semantics with descriptive methods[xxvi], and maximalist[xxvii] approaches to the lexicon, and renewed interest in the psychological reality of meaning. The pursuit of precision lead to componential analysis of meaning in terms of distinctive oppositions (Geeraerts 2010: 74) exemplified by Pustejovsky’s feature based description.

Pustejovsky

According to Pustejovsky, compositionality will depend on what the basic lexical categories denote. If we change the way lexical categories can denote, it changes the form of compositionality. The infinite number of novel meanings in new contexts do not constitute infinite polysemy (Pustejovsky 1998: 43) but sense alterations based on changes in lexical category as regular as the transformations in syntax (Pustejovsky 1998: 42).

Pustejovsky critiques sense enumeration models of the lexicon for being inadequate for natural language description (Pustejovsky 1998: 39). For these and single words with multiple syntactic realizations (Pustejovsky 1998: 39), word senses will proliferate, providing an unlearnable system, too taxing on lexical memory (Pustejovsky 1998: 40).

The generative lexicon, a four level computational system, is proposed as a solution (Pustejovsky 1998: 61). It analyzes the meaning of expressions in terms of how they relate to other parts of the sentence or fit into a chronological or categorical context: argument structure (type of logical argument and syntactic realization), qualia structure (the formal, constitutive, telic and agentive

qualia)[xxviii], event structure (definition of event type, state, process, transition, or sub-event) and lexical inheritance (describing what parameters it inherits from its umbrella category in the semantic hierarchy).

Meaning inheres in relationships and not *in* words. Generative devices, or transformations with well formedness conditions, connect the four levels, such as type coercion[xxix], selective binding (see terms in appendix) operating on the substructure of a phrase without changing the overall type, co-composition (multiple elements within a phrase generating new non-lexicalized senses) (Pustejovsky 1998: 61), and offer a potential solution to the polysemy that is seen as problematic for compositionality and the opacity often found in compounding and idiom. It 'allows us to conflate different word senses into a single meta-entry, greatly reducing the size of the lexicon. Semantic underspecification plays a role'. He calls the meta entries lexical conceptual paradigms (LCP's) (Pustejovsky 1998: 62).

Pustejovsky tried to develop a more inclusive model of the lexicon (Geeraerts 2010:120), and the generative lexicon is less reductive than structuralist models, but the problem remains that it undergenerates or cannot explain contextual variability fully (Geeraerts 2010:153).

5.5 Neo structuralist semantics

Out of the pursuit of formal and psychological adequacy, arose the approaches of full (Cognitive Semantics) and minimalist (Neostructural/underspecified) semantic description (Geeraerts 2010:121). The tension between a maximalist and minimalist conception of the mental lexicon surfaces in various guises in theory, states Geeraerts (2010:182), and is dogged by demarcation difficulties. Neostructuralists strive for restrained semantic description, and are concerned with decompositional[xxx], componential[xxxi], or relational[xxxii] types of analysis. Wierzbicka is a good illustration.

Wierzbicka

Desire for semantic precision led to Wierzbicka's search for semantic universals.

The misconceptions about dictionary definitions that Wierzbicka objects to are due to the following authors: that accurate dictionary definitions were unnecessary and impossible to Chomsky (Wierzbicka (1996: 250)), and that this is because concepts are innate to Fodor (Wierzbicka (1996:253)). Wierzbicka aims, citing Plato (1970) to capture the 'invariable aspects of a word's use' (Wierzbicka 1996: 116-117), find undecomposable, undefinable (Wierzbicka 1996: 237), invariant, precise and discrete atoms of meaning (Geeraerts 2010: 135), fulfilling the platonic purpose of definition. In her search for a universal primitive atomic grammar as in the 'real grammar' of natural semantic metalanguage (NSM) (Wierzbicka 1996:112), that assumes 55 primitives[xxxiii], she examines other theories about concepts such as the prototype theories (see terms in appendix) of Wittgenstein and Rosch which she contrasts with semantic invariance as in Aristotle (Wierzbicka 1996: 112).

Her criticism of lexicographers is that they think meaning is indefinite (Wierzbicka 1996: 286) because definition creation is hard (Wierzbicka 1996: 241). Dictionaries often fail to capture a semantic invariant, and may just offer synonyms (Wierzbicka 1996: 245). She proposes that precision would be achieved by using UG and a small set of universal semantic primitives.

Wierzbicka may attempt to solve the problem of the circularity of dictionary definitions with a priori building blocks of meaning, but there is still the problem of reference. As Geeraerts articulates with respect to the reference problem: if these meanings are inborn, as she says, how do they come to be related to the world or non conceptual data ? A primitive is not better off than any other word, and decomposition is not preferable after all (Geeraerts 2010:134).

Wierzbicka and Goddard share the strong lexicalization hypothesis (see terms in appendix), in which primitives are lexicalized (see terms in appendix) in all languages (Goddard (1994:13), cited in Geeraerts (2010:127)). But, says Geeraerts, Wierzbicka presents no well defined method for testing

universality, or the primitives' cross linguistic presence (Geeraerts 2010:135). Her primitives are not determined a priori but by trial and error, and the set changes over time (Geeraerts 2010:132).

Shannon's critique

Shannon argues convincingly against semantic specification, that representation specified in terms of a well defined code cannot exhaust the meaning of linguistic expressions because context dependency introduces unboundendness. It does appear as if contextual variation breaks down the contained definition of word meaning, as in the famous 'Is the pope a bachelor ?' example.

5.6 Formal linguistic and non linguistic knowledge and 'post' Generativism

Jackendoff's semantic description is restricted to a set of 'conceptual primitives' of the type *event, state, path, thing, place, property, amount*, which are underspecified, with all forms of locomotion on two feet having the same representation (Geeraerts 2010:138). Jackendoff claims there is no privileged level at which linguistic information can be separated from other kinds of information. Using a pragmatization strategy to 'keep the semantics clean ... by deferring flexibility' (Geeraerts 2010:144).

5.7 Cognitive semantics

Cognitive semantics veers back towards maximalist lexical approaches, concern with cognition, pragmatics, semantics and prototype theory (Geeraerts 2010: 23). More than any other discipline, it supplies a theoretical framework and analytical tools for exploring meaning (Talmy (in Brown) 2006:542-545). Cognitive semantics emerged in opposition to the autonomy of grammar and the secondary status of semantics in generative theory in the 1980's (Geeraerts 2010:182). Its pragmatic and flexible understanding of meaning involved negotiated meaning[xxxiv]. Meaning is conceived of as embodied and spatially situated. One of cognitive linguistics' main subjects is metaphor, which can be seen as a mechanism of meaning extension.

Neurolinguistic model for recognizing similarity

There may be a neurological basis for determining similarity used in analogy and categorizing, both very important cognitive tools. If two concepts are activated, the activation spreads to all linked concepts, and the number of matching concepts surrounding the two original concepts, and called attributes in the prototype model, are calculated, leading to a decision on similarity or category membership (Collins and Loftus (1975) cited in Geerearts 2010:246). But this model has long been superseded by newer ones.

Another essential element of cognition is giving focus or prominence. Different features or components of meaning, have different salience, with defining, necessary features having more weight than characteristic or typical features. This is called feature weight by Shoben and Rips (1974, cited in Geeraerts 2010). It was believed we calculate membership in categories based on this feature weighting (Geeraerts 2010:244).

Metaphor

Metaphor research experienced a rise in popularity in the 1980's exemplified by Lakoff and Johnson (1980) (cited in Geeraerts 2010:204). Lakoff and Johnson placed metaphor at the core of human cognition: 'Metaphor is pervasive in everyday life …and on the basis of linguistic evidence, most of our conceptual system is metaphorical in nature' (Lakoff and Johnson 1980: 3). We perceive similarities in metaphors based on correlations in experience (Lakoff and Johnson 1980:152). 'The essence of metaphor is understanding and experiencing one thing in terms of another' (Lakoff and Johnson 1980: 5,14).

There are four degrees of similarity in conceptualizing metaphors. In the *Metaphorical view*, the meaning within the metaphor and without are the same and do not require different definitions, in the *Abstraction view* there is a concept abstract enough to include both the original and metaphorical

meanings, in *Weak homonymy* distinct concepts with meanings related by similarity, but one is not understood in terms of the other, and in *Strong Homonymy* the original and metaphorical meaning are two entirely different concepts with the same form (Lakoff and Johnson 1980: 106).

A new metaphor or compound, has to leave enough traces in the memory of a group of people if it is to reach conventionalized status (Geeraerts 2010:234). New metaphors are capable of expanding understanding of our experience and a good one resonates with many entailments (see terms in appendix) of our experience (Lakoff and Johnson 1980: 139-142).

Meaning extension

Metaphor is shown as an agent of meaning extension. Evans and Tyler (2004) investigate the extension of the preposition '*in*' (Evans and Tyler 2004: 2, 7). Habit leads to their use in conventionalized contexts, which are then reanalyzed as a new meaning, and transferred to contexts unlike the original scenario (Evans and Tyler (2004:21)). 'As a result of the growing entrenchment of (these) peripheral readings, the internal structure of a category may change' (Geeraerts 2010:232).

Constraints on meaning extension are grounded on the purposefulness of communication (Gumperz (1982) cited in Evans and Tyler (2004: 2)). A speaker assumes the listener could readily interpret the novel usage. In Bartsch's theory semantic flexibility is a necessary feature of the socio-semantic function of categories, to serve the highest norm, meaningful communication (Bartsch (1987), cited in Geeraerts (2010:257)).

The process of meaning extension illustrates that there is a motivated, systematic and highly organzied system, Vyvyan Evans argues (Evans and Tyler 2004: 1) rather than arbitrarily related homonyms (see terms in appendix) in the mental lexicon (Evans and Tyler 2004: 1). The conventional meanings of a word make a radial network (Lakoff (1987, 1980) cited in Evans and

Tyler (2004:8)) representing degrees of relatedness between meanings and within categories (Lackoff 1987 cited in Evans and Tyler (2004: 8)).

The semantic network of related concepts is organized into a taxonomic hierarchy. The conceptualization of a topic (as in Lakoff's example, 'argument is war' (Lakoff and Johnson 1980: 4-6) will take related semantic networks with it, shaping the way we talk and think about that topic and this appears to be universal, structuring our world knowledge.

Interest in the regularities of semantic change, once a preoccupation of philologists, resurged in the late nineties. Universal regularities were sought[xxxv]. The diachronic application of prototype theory was used to find regularities in word meaning change, and patterns of salience within networks of related meaning. Globally, borrowing new terms was found to be preferred to morphological productivity (Geeraerts 2010:237).

5.8 Cognitive Theory against compositional and stable word meaning

Taylor's theory which could be used to argue against the notion of compositionality in word meaning most strongly, does not deny that words bring meaning to language, that would be difficult, but undermines particular conceptualizations of word meaning, such as the idea of a word as a concept, a stable unit of meaning stored in memory. The other objections are to its stable uninterruptable internal structure and freedom of combination (Taylor 2012: 32-33) and have been dealt with by Bauer under word definitions in the morphology section.

J.R. Taylor's book *The mental corpus* (2012) reviews a large number of authors on semantics, generative syntax and other topics. He expresses doubt that word meaning is compositional, (Taylor 2012 :36,42), that lexical categories exist (Taylor 2012 : 45-46 and extensively in the text), and questions the justification of the division of grammar and lexicon that is so important to what he calls

generative theories (Taylor 2012:41), ignoring criticism of the disjunction of lexicon and grammar by Marantz (1997). He refers for support to network theory, in which exact word meaning is also doubtful. The network is characterized by semantic instability, both synchronic and diachronic. At the core and periphery of the network dynamic changes can be seen (Taylor 2012:97), (Evans and Tyler 2004:8).

Fuzzy categories

Prototypes should be mentioned here, as they are both important in theory on word meaning, and marginally similar to networks in that they have a core and periphery, more typical members and outliers. Prototype theory denies the possibility of exact category definition, and exact feature or attribute based meaning description, because the prototype is non-discrete (of borders) and non-equal, having more typical examples. Famous studies by Eleanor Rosch (1970's) and Murphy (2002) are discussed by Geereaerts (2010:246-248). Although, as Sean Bowerman (P.C. 2014) pointed out to me, this is somewhat offset by the core periphery distinction, nonetheless exact category definition is excluded, by definition, from the prototype.

Another attempt to accommodate the fuzziness of meaning is to conceptualize it so that no cutoff points or borders are necessary. Elman's model of meaning in machine learning suggests compositionality, but the features are not binaries, being scalar features in a hyper-dimensional space. Categories are arranged in regions of sameness on a continuum, between dimensions, forming a matrix which fills over time (Elman 2004: 304). The informational content is in comparison (Elman 2004: 302). Words themselves have no meaning, but are stimuli, affecting mental states (Elman 2004: 305) not lexical entries in a passive structure in long term memory (Elman 2004:301).

Blending

The cognitive blend is not a mixed word like *brunch* but a mental process described by Fauconnier and Turner (2002). Geeraerts' extraction from Fauconnier, the example of 'the grim reaper'

(Geeraerts 2010:210-213), a blend of different characterizations of death, does not reflect blending's power or ubiquity as a cognitive tool. We cannot extend from one learned schema to another without blending or understanding one thing in terms of another (Fauconnier and Turner 2002). Blending serves as the cognitive basis of metaphor rather than an interesting oddity or complex metaphor as interpreted by Geeraerts. For example, understanding economic forces which are chaotic and complicated in terms of simple graphs is a cognitive blending process. We think in terms of analogies all the time, to the degree that analogy is thinking. Blending may explain some of the semantic opacity of compounds.

Constructions

Taylor's core idea is that language learning is statistical memory of constructions. Classic construction theory as found in Langacker's *Foundations of cognitive grammar* (1987, 2008) (cited in Taylor (2012: 120)) which describes communication as sign use, and words and syntax as symbolic relations. Form and meaning have neither a relationship of resemblance (iconicity) or causality (indexicality), but rather conventionality (Taylor 2012: 121). Taylor simply defines a construction as any element of language that is learned and forms part of a speaker's linguistic knowledge. Constructions describe language exhaustively (Taylor 2012: 127), performing the work done by rules in generative grammar. They can be analyzed into parts (Taylor 2012: 124), but they give a form meaning pairing with unitary status. A sentence is not entrenched through usage and therefore not a construction (Goldberg (1995) cited in Taylor (2012: 125).

Arguments for construction

In test subjects grammaticality decisions vary in reaction speed, showing frequently used items are accessed as wholes, suggesting larger entrenched units are more accessible than their components (Taylor 2012: 130). Generation may actually slow down speech production (Taylor 2012: 133). Complex expressions undergo semantic drift, away from compositional meaning, indicating they are stored whole in memory (Taylor 2012: 131).

Taylor shows that the semantics and category of lexical items, in related verbs such as *talk, push, force, cajole, entice, tempt* (Taylor 2012: 62) do not account for the different syntactical distribution. Most verbs do not share the properties of all verbs (Taylor 2012: 66) and some compounds are defective in distribution. In **We sightsaw in Paris*, the regular form of *see* is prohibited, we have to use a construction, *went sightseeing* (P.C. with Sean Bowerman 2014). Distributions are specific to each word, and competent speakers have to learn their unique patterning (Taylor 2012: 68).

Generally, idiom is defined as unexplainable by syntactic, semantic or lexical rules (Taylor 2012: 69). It is thus largely ignored by linguists who focus on the 'core' of language, and 'shunt off ' idiom into other parts of language like the lexicon. In generation, after each unit of discourse is completed a large choice opens up (Frith and Sinclair cited by Taylor (2012: 110)). This is named a slot and filler model, meaning in each slot virtually anything can occur, whereas idiom selects from 'a large group of semi-pre-constructed phrases' permitting some limited lexical variation in 'open slots' (Taylor 2012: 111). In *X (verb) the Y (noun) out of* (Taylor 2012: 77). The verbs (*X*) have a semantic relatedness but not the nouns (Taylor 2012: 77-79). There are also numerous idioms with unusual syntax such as *by and large* (Taylor 2012: 80-96) and many others with regular syntax and irregular lexicality, such as *on* and *at* the weekend (Taylor 2012: 97) see my examples below.

Idioms

Irregular syntax	**Irregular lexicality** **Regular structure**	**Regular but metaphorical**
a dime a dozen	a piece of cake (N >Adv)	below the belt
a tossup between	all Greek to me (N >ADv)	bring to heel
the more the merrier	force someone's hand	corridors of power
easy as pie	all's well that ends well (Arch?)	dance to someone's tune
a going over	in the offing	back to the wall
stand on ceremony	time-honoured practice	have your cake and eat it
gofer	gets on my nerves	sail through
do's and don'ts	take a rain check	take it on the chin
go it alone	half a mind	pack of lies

The generative model does not produce or generate idiomatically correct phrases but a lot of others, even nonsense sentences (Taylor 2012: 100), a well known criticism of generativism (P.C. with Sean Bowerman 2015). In response some generativists have included nonsense as a valid product of the generative process, because sense (meaning) is not a criterion which determines structure. Taylor (Taylor 2012: 100) sees the generation of nonsense sentences as both under and over generation. Speakers must know both the grammar and conventions of how to behave linguistically (Taylor 2012: 100-108) to generate sentences that make sense to others. Taylor argues that this constitutes evidence that complex expressions are formed not by rules operating over an input string but with constructions at various levels of abstraction (Taylor 2012: 137).

Frequency and learning

Language can be conceptualized in terms of the metaphor of the mental corpus and is learned bottom up through exposure to use, and knowing consists not in knowledge of rules but in memory of previously encountered utterances. We learn by sensitivity to frequencies in language, employing something like collocation. The co-occurrence, or collocation, may be syntactically conditioned (Taylor 2012: 108-109).

A child learns one verb at a time until a critical mass is reached before generalizing into rules. They stop learning distinct forms and go into a particulate structure phase, re-analyzing the parts of what they are saying for later re-use. But the idiosyncrasies of oddly distributing verbs remain, suggesting, that we can accommodate two kinds of constructions, learned idiomatic-ungrammatical ones and rule generated ones (Taylor 2012: 142-145).

A fundamental issue in Taylor's theory is asymmetry. Everything in language occurs at different frequencies (Taylor 2012: 146). There is no known functional explanation for some asymmetries, yet they are cross linguistically stable (Taylor 2012: 147). Chomsky called them an E-language

epiphenomenon, but Taylor believes them integral to I language (Taylor 2012: 149) even a design feature (Taylor 2012: 148).

If we plot the number of tokens (words) in a text against frequency rank it always (Taylor 2012: 153) illustrates Zipf's law, that if the most frequent word in a corpus accounts for X % of tokens, the next most frequent will account for X/2% then X/3% to X/n%.

Speaker intuitions on word frequency have been shown by 50 years of research to be quite accurate, even more accurate than corpus statistics, which may misrepresent certain frequencies. But speakers underreport the textual frequencies of common words and overestimate that of rarer words and idioms (Hintzman (1969), (Popiel (1988)), and (Alderson (2007)) (All cited in Taylor (2012: 176-177)), appearing to notice them more (McGee (2008) drawing on Tversky and Kahneman (1973) cited in Taylor (2012: 177)). The recency effect, or structural priming (Giles 73, 91)(Taylor 2012: 210), is the basis of micro learning, helping to entrench linguistic knowledge (Savage, Lieven, Theakston, Tomasello (2006) cited in Taylor (2012: 212)), (McDonough and Mackey (2008) cited in Taylor (2012: 214)). The more unusual the structure the stronger the priming effect. This enables us to learn from minimal exposure (Schmidt (1990) cited in Taylor (2012: 214)). Recency effects last for weeks (Sachs (1964, 1967) and Jarvella (1970,1971) cited in Taylor (2010:218)).

Rosch ((1978b) cited in Taylor (2012: 193)), a prototype theorist, claims the world does not present itself as set of equally possible options, that uneven distribution of attributes underlies our formation of categories. Taylor focuses on prototype theory with weighted features (Taylor 2012: 186-187). His critique of the classic theory, with categories having definitional attributes, is that when thinking on our feet we don't have time to check all attributes before categorizing. One feature of a category may allow us to make an inference about identity (Taylor 2012: 187). Taylor offers no empirical proof of this limitation in computation speed, even as he accuses others of underestimating human memory without proof.

The commonly held view that words are stored stripped down, recognized only by distinguishing, contrastive features (Chomsky and Halle (1968), Halle (1957) cited in Taylor (2012: 207)) and that all else is noise, is belied by the finding that listeners recognize a word better if it is delivered in the same voice as the original exposure, even after weeks (Goldinger's (1996) experiment cited in Taylor (2012: 206)). Memory is detail rich and multidimensional asserts Taylor (2012:285-287), citing Lachs, McMichael and Pisoni (2000:164).

Implications for compositionality

Reviewing points made by Taylor that impact on compositionality:

> *'Meaning often is not entirely compositional, but recognizing constituents allows cross referencing to their use in other constructions ….The productivity of a generalization or schema is its ability to sanction new instances, which interacts with entrenchment, a function of frequency. These… have been studied in derivational morphology (Rosenbach) but apply elsewhere'* (Taylor 2012:285-287).

Meaning is supposed to be compositional to justify generative models of how we understand each other, and explain creativity, but many expressions are opaque in meaning (Taylor 2012: 40). 'One solution is to propose the stable unit as the word with formation rules' (Taylor 2012: 41). In its place Taylor offers his theories of learning involving rich context, sensitivities to skewed frequencies, and to introduce variation, blending, in which features of distinct mental 'spaces' (read concepts) are recruited to make new blends (Fauconnier (1994) and Fauconnier and Turner (2002) cited in Taylor (2012: 263)). The variation through blending referred to here can be interpreted as the extension of word meaning into new contexts.

This suggestion that blending is able to introduce variation, that is, blending allows new combinations that are not part of remembered linguistic experience, is Taylor's sole contribution to the understanding of meaning making, rather than learning, and is a notable weakness in his theory.

Taylor addresses the steps from real world experience to context rich memory and how this might lead to a knowledge of skewed distribution, and thus language learning, in great detail. But the transition from skewed distribution to blending and generalization, or a schema with replaceable parts, without statistical knowledge as precedent, is not very clear. His theory accounts for reproduction and not creativity.

Polysemy

'For the language user….units of knowledge are not the individual verbs…but the typical collocation' (Taylor 2012:227). Taylor emphatically excludes consistency of word meaning from his paradigm: it is 'futile to ... associate each word of the language with a fixed number (one or more) of discreet meanings, meaning which can be characterized independently of the contexts in which a word appears' (Taylor 2012: 220).

Fodor explained that strict compositionality of meaning requires very precise meanings of the parts, and polysemy will require computation of which to select, and since 'computing memory is expensive, long term memory is cheap', it would tax the brain. However this view is incorrect, claims Taylor, in fact adding more polysemic terms to a sentence seems to reduce ambiguity (Taylor 2012: 224). Both arguments reinforce the idea that locating words in long term memory is more efficient than their generation in the moment of speaking. This does not disprove that they were originally created by a compositional process. Once again, creation is Taylor's blind spot.

Implications for the Lexicon

'The lexicon is the store of words in long term memory from which the grammar constructs phrases and sentences', from a finite set of combinatorial principles, and creatively combined according to Cruse (2000b:238) and Jackendoff (2002:39, 130) cited in Taylor (2012: 20-21). For clarity, the mental lexicon of an individual is what is referred to, to differentiate from the lexicon of a language which is the sum total of these. Theorists argue over the extent of this dictionary or lexicon, the basis

of what Taylor (2012: 19) calls the 'dictionary and grammar model', whether it is a repository for anything that cannot be rule generated (going back to Bloomfield (1933)) including morphemes like 'er' and plural [s], or the idiosyncratic in Chomsky and Halle (1968), a list of exceptions in Chomsky (1995) (Taylor 2012: 34), and whether it is finite or infinite. Taylor claims that in his model, there is no need for a lexicon grammar distinction.

Implications for lexical categories

The idea of lexical categories (noun, verb etc.) is an old one, the concept of a *noun* originating with the Sanskrit grammarian Yaska, and Plato (http://en.wikipedia.org/wiki/Noun#History). Probably all languages have words which can function as nouns and verbs, and all other categories depend on these (Croft (2001) cited in Taylor (2012: 46)) and are more problematic. Lexical categories are central to generative theory, combined with rules like NP > Det N, without reference to their further semantic content (Taylor 2012: 22). Of these categories, there must be few (single digits or low teens), with many members (Taylor 2012: 44). All members of a category are equal and have the same distributional properties (Taylor 2012: 45). Different verbs and nouns must be marked for the kind of phrases in which they may occur, dividing them into subcategories which are supposed to be a function of word meaning (Wierzbicka referred to in Taylor 2012: 25). Taylor's work is generalizing about theoretical opposition, a common fault in academic authorship.

Lexical categories cannot be determined in semantic terms. A noun is not always the name of a person, place or thing, but known by its syntactic behavior. According to Taylor, this lead authors to believe that syntax was autonomous from meaning. If syntactic categories lack identifying semantic content one can give a functional account as in Langacker (1987) and Croft (1991) (cited in Taylor (2012: 137)). A noun is the status of an object as a thing, a verb is a temporal relation, reference is then a function of a nominal, predication of a verb, and modification of an adjective or adverb. Deviations are marked by special morphology, such as nominalizing morphology in *explosion*. Later Croft is more radical. The categories depend on syntactic *and* morphological properties, making

constructions primary and lexical categories derivative. NP's etc. are a shorthand for the permissible positioning in constructions. Then there are as many NP categories as there are NP using constructions (Croft (2001,2007) cited in Taylor (2012:138-139)).

The rules for combination of lexical categories massively over generate and produce many absurd examples like *the spinach shot the lettuce*. Distributions have to be . by speakers, because they are so irregular, says Taylor. *Explain* doesn't pattern like *tell (*Taylor 2012: *28).* Gross (1979) analyzed 12000 French verbs and found no two with identical patterning all the way through. Even Culicover, an adherent of generative grammar, posits in *Syntactic Nuts* (1999) that the number of lexical categories might be very large and many may have quite small membership, and just have to be learned (Taylor 2012: 50). Linguistic knowledge requires that one know 'how a word is used', and this is its acquisition (Taylor 2012: 45). The non existence of lexical categories is a major part of Taylor's empirical argumentation. I think Taylor cannot claim this based on there being irregularities of behavior, or too many variants, when he argues that the foundation of learning is irregular distribution.

Taylor on compounds

Notably the non rule generated prerequisite for anything in the lexicon is problematic in the case of compounds, derived words and syntactic constructions (Taylor 2012: 35). According to Taylor, compounds have no word meaning except through use. Despite being combinations their parts are neither strictly compositional, nor are the networks of compounds or the proposed content of their parts semantically stable, in fact they do not have content as such, and there are no rules governing their formation, just templates.

Where before there was no place for rules (Taylor 2012: 127), Taylor defines a compound as 'a word that consists of two words', and proposes a recursive rule $\boldsymbol{X \rightarrow X\ X}$ for compound creation, because of the number of cases of XX compounds, implying that very productive templates transition to

being rules. But if these compounds can be rule generated they shouldn't be in the hypothesized lexicon (Taylor 2012: 35), conveniently forgetting the time lag between creation and lexicalization, and again: 'Some compounds are possibly generated and some learned, and its not easy to separate these' (Taylor 2012: 36). Word formation rules are notorious for their limited productivity and so idiosyncratic that nearly each word requires a separate set of grammatical rules. Even affixation is not productive in the way generative rules are supposed to be productive, for example 'hood'. Its different uses have different meanings, from a secret society (brotherhood) to a location (neighbourhood) (Taylor 2012: 37), see endnote[xxxvi]. He could have chosen an example of much more regular affixation, that made generation look more feasible, because its hard to describe highly productive Namagowab affixation and compounding without considering the possibility.

Taylor discusses empirical data that should 'demolish' the idea of a word (Taylor 2012: 32-33), stability of word meaning and lexical categories. Taylor feels linguists
often accommodate recalcitrant data as the dictionary and grammar model is so powerful. Any deviance from compositionality is labeled idiomatic, and marginalized (Taylor 2012: 42). I do agree that the polarization of the lexicon and grammar should be criticized, and despite its failings, Taylor's document contains interesting and very useful ideas replete with explanatory power in the quest for a cognition based understanding of word meaning and concatenation.

5.10 Conclusion of Literature Review

We conclude the reading with a short review of the topics. In the contact history of Namagowab and English we sought possible drivers of lexical creation, in lexical semantics an overview of lexical meaning making. The issue of compositionality of meaning and structure in words has been examined from those theorists who have an extreme view of the cleanness of lexical compositionality, to those who jettison the idea of compositionality altogether. Models of how language works based on limitations of human lexical memory, or limited computational speed were touched upon. The major makers of meaning, extension, which was seen most clearly in polysemy

and metaphor, and combination, which was seen most clearly in word and compound structure, were investigated. What follows is to search for concrete examples in our two languages which illustrate the compositionality or lack thereof, of semantic and structural elements of compounding, the relationship with headedness which is a characteristic of phrases, meaning extension, and compounding's frequency, and richest thematic fields of meaning in the two languages.

From English history, affix etymology, and the Khoekhoegowab lexicon today, it appears that compounding does play an important role in lexical creation. To judge from the work on morphology, lexical semantics, compositionality and early English, why compounding particularly is used, among other options, is not examined. In the main, the broad swathe of literature on word meaning does not focus on compounding, the theory on compositionality often refers to finer resolution (roots, features, universals), than that of two word concatenation and the extensive theory engages with metaphor applied to prepositions. The general principles gleaned from these areas focused on other themes, was nonetheless useful.

6 Methodology

6.1 Background

My intention was to investigate the creation of new lexical meaning from old. It is a very broad topic, needing narrowing down. A focus on compounding appeared to have many advantages. I decided to use word lists from dictionaries, rather than spoken language, because of accessibility and lack of funding. But further limitation was needed. I left out the study of spoken language and the sociolinguistic aspects of dictionary making although it goes without saying that in the nature of the dictionary making process, the dictionary will be coloured by the preferences and ideology of its author or authors, and the the lexical meaning of words used in spoken discourse would constitute a different kind of study with different questions. A brief consideration of statistical methods such as corpus linguistics persuaded me they were not amenable to my questions on meaning creation. The disadvantage of corpus linguistics, is that though not bound to any theory (Geeraerts 2010:176) semantic information extractable from a distributional corpus does not exhaust the information available to users. To illustrate, in the entire BNC (British National Corpus) the word *wash* occurs a few hundred times, and the majority of those as the modifier in the compound *wash pedestal*. Words less basic, yet still common knowledge may not feature at all, and cannot be investigated (Pustejovsky 1998: 42), MOOC course convenor Tony McKenery (McKenery 2014). There is no electronic Namagowab corpus at present, and statistical analysis, even with English, the largest corpus in the world, can only engage with certain kinds of lexical questions. Manual counts have the advantage that I can access my own lexical knowledge in English, but I had no equivalent knowledge of Namagowab. I had to adjust the scope of some exercises accordingly. After settling on the broad outline of my source documents and method I framed the following questions with strategies for answering them.

6.2 Questions

1) **How prominent is compounding in the dictionaries ?**

   Different types of lexical meaning creation strategies or words need to be counted, and the

frequency of compounds then compared to these. Classify and count randomly sampled words by the following types: short words, affixated words, compounds and borrowed words. Many words belong to multiple categories, count them as such.

2) **How productive are different types of roots in Nama ?**

   Count the number of compounds made with specific first roots randomly sampled in Namagowab.

3) **Is there compositionality in the structural formation of compounds ?**

   Analyze constituent and compound class and count.

4) **Does this pattern with headedness, a property of phrases ?**

   Analyze for headedness and class and count the frequency of the resultant patterns.

5) **Does the meaning of compounds appear to be compositional or not ?**

   Do a meaning compositionality analysis of constituents and resultant compounds.

6) **Do compounds show extension of meaning ?** T

   Choose a very productive first root in Namagowab compounds, like *ai*. Such roots are ideal because of the number of resultant compounds. In English they are hard to find. The study of the preposition *in* by Evans and Tyler inspired this analysis, and it does illustrate the patterns of meaning extension in English. Because of this existing study and the absence of prolific roots, the study of meaning extension in English compounds was abandoned.

7) **What can be determined regarding the scope of thesmes in the Khoekhoegowab and English lexicon. Does this inform on the need for meaning creation ?**

   Use thematic analysis from randomly sampled words to determine the richest areas themes of the lexicon.

6.3 Data

1) The Khoekhoegowab Dictionary by Haacke and Eiseb, 2002.
2) The Concise Oxford English Dictionary: 1929, 1964, 1999. Various editions are due to chronological comparison which became a side issue.
3) Assessments of compounds in a selected sample by Pedro Dausab (translator and teacher of Namagowab)
4) Interviews with two Namagowab Language practitioners to gauge the usefulness and reception of the dictionary are discussed in the first chapter.

6.4 Method and technology

Use tables. Make simple templates on Excel spreadsheets and enter word lists from the two dictionaries by hand into the templates. If a word belongs in a certain category, enter the number '1' in the appropriated column, and if not leave blank. Count all the words in that category by using the sum function on the whole column.

6.5 Procedure

five methods of word selection:

1) **Non random sampling :**

   a) all the compounds listed with the first root *ai,* in order to examine meaning extension in the first root *ai.*

2) **Randomized sampling :** Randomly selected words using page numbers.

   a) Note entire pages of words whose page numbers end in 50 for word types and themes.

   b) List one compound from every alternative page for a wide spread in analysis of class compositionality for example.

   c) Count all the compounds arising from the first dictionary entry on alternative pages to compare the productivity of roots.

d) List all the compounds starting with an arbitrarily chosen page number, till a certain number is reached for initial investigation of countable parameters. Also useful for affix frequency analysis.

Templates

Make templates with a column for the words in the dictionary, a column for the gloss of the word, a column for the constituents of the word, like suffixes, and a column for the gloss of the constituents, then several columns for the particular analysis being done, such as the word's type, lexical classes, meaning subsets etc. Based on these simple flexible templates many attributes can be counted, from subject themes, to first roots, compound formulae, and headedness.

Transforming the templates

For analysis of compound constituent patterning expand the number of columns as there need to be a countable column for each type of combination (such as NN, NV etc.), and for the analysis of compound formulae expand again, to have a column for each formula, and then for the formula's combination with headedness.

For the analysis of constructions or schemata, and meaning compositionality, a different format of expanded columns is needed. Experiment with possible construction formulations, which are many, and select a few for the final printed tables. To assess semantic compositionality, describe the sense of the compound constituents. This cannot be done exhaustively (Pustejovsky (1998) is an illustration) but one can use the largest meaning subset that allows comparison of the component and compound, to see what is excluded and added to the sense of the compound, by paraphrasing.

For forming the semantic tree in the analysis of meaning extension, analyzed a compound with the same first root to see how the meaning of the first root shifts in the various contexts, in order to group the senses of the first root into branches of related meaning.

For the analysis of the thematic scope of the lexica, expand the wordlist of randomly collected words (by page number) into columns with themes, like animal, abstract, social behavior etc.

Lastly, compare the results in English and Namagowab only where possible, because I do not have enough knowledge of Nama or research funding to complete some tasks. The knowledge of meaning gained from a dictionary and several grammars is too limited.

Adjustment after collection

The size of the excel spreadsheets became excessive, creating interpretation problems for the reader. I removed the word lists, after extracting counts from them, and presented the processed data converted to small word document tables seen in the results section. In addition I made documents in word document format which include the word lists, but with reduced numbers of columns, thus being small enough to print in the appendix, so that my decision making on each word becomes transparent.

6.6 Other necessary information

Testing for compounds

I wished to test whether what I perceived as compounds were in fact perceived as compounds by Namagowab speakers, and asked a language practitioner to help me (for Pedro Dausab's feedback, see digital appendix, y/n answers (odt file)). Gaeta and Ricca's definition immediately proved problematic, and definitely had to be rejected as a standard. Hagmann's (1977: 69) language specific definition in which a compound must consist of two roots, with the same semantic value in other combinations was more appropriate, and it corresponded to Dausab's assessments.

Defining small words

For the word type analysis, I needed a numeric estimation of the presence of small words that are partial homonyms, differentiated by lexical tone. I did not find them described anywhere, making this definition necessary:

small words : long voweled or dipthonged syllables of the form ʔVV, ʔVV***C***, CVV, CVV***V*** or CVV***C***, (where ***C*** or ***V*** are the nominalizing suffixes), distinguished from particles and most of the bound affixes (usually CV, that is with short vowel). The glottal stop is taken as a given (Haacke 1999:10) word initially before a vowel. Thus examples of the shortest small words are: *ǹá* (yes) *ǹa̋* (cry) *áà* (drink) in Haacke and Eiseb's (2002) orthography, transcribed in the standard as a long vowel {*ā*}, the maximum length would be *!kháiǹs* (n. position), whereas ǂ*oǹa̋* (jostle) is a standard root length, and would be excluded as would *ǹàbǹ* (help to finish a drink), using CV affixation (*-bǹ* is a regular affix meaning 'to do for someone').

Orthography

At first, I had a column for the Haacke Eiseb (2002) accented tonal orthography[xxxvii], believing it would help with analysis of words differentiated by lexical tone only, however after some weeks I found that differentiation of meaning via the interpretation of dictionary glosses would suffice, and I abandoned it. Thus the orthography in the text is mixed, but it with no real effect on analysis.

Interviews

The interview recordings are in the digital appendix. I transcribed only the major points and timing of statements relevant to the reception of the Haacke-Eiseb (2002) dictionary and have not done full linguistic transcription, considering the purpose of the interviews is to obtain feedback on the dictionary, not to analyze the speakers' linguistic performance. I personally have a tendency to over-transcribe which would have taken months.

Limitations

In a study on meaning, the limitations in lexical knowledge of a non speaker are integral, where a more structural or formal study does not highlight this as much. This may explain the dearth of lexical semantic research in any but a few languages. I felt mother tongue knowledge is needed for judgments of opacity, analyzing semi formed theta roles and the compositionality of meaning in compounds, and attempted to work around this. In the themes, many words fit into multiple categories, which are perhaps too broad, and a more precise way of analyzing super categories or themes is needed. Bigger samples in all the tests would be something to work towards.

7 Results

The following counts help to situate compounding numerically within word formation strategies as a whole, in both languages.

7.1 word types

NAMAGOWAB WORD TYPES

TOTAL	affixation	compounds	homonyms	short words
189	93	82	32	63

ENGLISH WORD TYPES

TOTAL	affixation	compounds	homonyms	short words
66	41	2	0	0

BORROWED

42	18

Out of a sample of 189 words in Nama, there were 207 counts of morphological combination (including tone), bringing the average per dictionary entry to 1.09. Out of the sample of 66 words in English there were 43 counts of combination, bringing the average per word to 0.65. In Nama which thus combines more frequently, the most frequent combination strategy was affixation, accounting for 45% of combinations, followed by compounding with 40%. In English which combines less, 95% of the combination was affixation, and compounds accounted for only 5%. The most frequent strategies for creating vocabulary in English were borrowing, as 64% of the word count involved borrowing, followed by affixated words. I use the term borrowing to refer to words which obviously have Latinate origins. Though integrated into modern English, this type of borrowing was once a strategy for meaning making, and needs to be contrasted with the frequency of borrowing from European languages in Namagowab dictionary today, in which the presence of borrowing varies with

the sounds of the Namagowab alphabet which do not occur in Afrikaans or English, such as the clicks comprising at least half of the Haacke Eiseb dictionary. English had a number of simple words which stand alone without affixation, comprising more than 37% of the word count, and Nama on the other hand, had a category which I've described as short words, very much smaller as a rule than simple words in English, comprising 33% of the word count. In the Nama sample, the number of differentiations by tone alone which appear almost like homonyms to an English sensibility, was 17% whereas in the sample taken of English there were no normal English homonyms at all, showing how low their frequency is in English in this comparison.

7.2 Compounding

The full extent of compounding is not revealed in the Khoekhoegowab dictionary because compounding is so productive that certain very productive forms are excluded from the dictionary. To determine whether I was assessing compounds correctly, I submitted a selection to the Namagowab speaking translator Pedro Dausab. Please see his assessment in the digital appendix under y/n answers, odt file. From this I could see that we agreed on their categorization.

Firstly compounds were assessed in terms of lexical class:

(N = noun, V = verb, A = adjective or adverb, P = pre or postposition)

NAMA

50	25	22	3	0
TOTAL	**N**	**V**	**A**	**P**
45	24	15	6	0

ENGLISH

7.3 Compound constituents

The distribution of the compound constituents was considered:

(The letters stand for the classes of the compound constituents, usually the first and second root and a few examples of three rooted compounds)

NAMA

8	21	3	2		2	1		7		5
NN	**VV**	**AA**	**NV**	**NP**	**VP**	**AP**	**NA**	**VN**	**PN**	**AN**
18	2		2	1	13		3	10	3	4

ENGLISH

NAMA

1		1	
VNP	**NPN**	**VVN**	
1	1		

ENGLISH

7.4 Compounding formulae

Formulae were created which represent compounding processes.

(In *VV.v* : *VV* = two verb roots, and *.v* = the whole resultant verbal compound. The symbol *X* stands for classless roots, which only acquire class with affixation. In *(VV)n.n* a two verb combination takes a nominalizing suffix to form a nominal compound)

NAMA

16	2		2			1	1	8	1	3	1
VV.v	**NV.v**	**VN.v**	**VP.v**	**NP.v**	**PN.v**	**XV.v**	**VX.v**	**NN.n**	**VV.n**	**(VV)n.n**	**VVN.n**
		2	11	1	1			17			

ENGLISH

NAMA

7	4	1		3		1	2	1			
VN.n	**AN.n**	**(AA)n.n**	**VP.n**	**(XY)n.n**	**XN.n**	**AN.a**	**AA.a**	**AP.a**	**PN.a**	**VV.a**	**NA.a**
1			1		5	2			1	1	2

ENGLISH

The English compound verbs here are mostly formed from VP combinations, the Namagowab from VV, in which they were the biggest group. In English it was the double nominals. In the whole sample noun constituents led to the production of compound nouns, predominately.

7.5 Modifier and head

Matching between headedness and the compound formulae showed a core of regular behavior and some irregularity.

Headedness and formulae in Namagowab

(see 7.4 (compounding formulae) explaining the symbols)

right headed	**PN.n**	**VN.n**	**NN.n**	**VV.v**	**PN.a**	**PV.v**	**AN.n**	VV.n	XN.n	VVN.n	**Xv.v**	**NN.a**
	9	4	4	3	2	2	1	1	1	1	1	1
left headed	VV.v	VPv	NP.v	**VPr,v**	**VV.n**							
	6	1	1	1	1							
double headed	**VV.v**	NN.n	**AA.v**									
	5	2	1									
Headless	**VV.v**	**NV.v**	**AP.a**	**VV.n**								
	1	1	1	1								
Opaque	**VV.v**	NN.n	NN.n	**VN.n**								
	3	3	1	1								

Headedness and formulae in English

(see 7.4 (compounding formulae) explaining the symbols)

right headed	NN.n	XN.n	AN.a	NA.a	PN.a	PN.v	VP.v
	15	4	1	1	1	1	1
left headed	VP.v	VN.v	VP.n				
	8	2	1				
two headed	NPN.a	VV.a	NN.n				
	1	1	1				
Headless	VP.v	AN.a	NA.a	VNP.v	NP.v		
	2	2	1	1	1		
Opaque	XN.n						
	1						

The majority of compounds in my English and Nama samples were right-headed. In the case of Nama (57%), and 17% were left headed. Exact criteria for classifying two headedness, headlessness and opacity were elusive because when the category of one of the parts is not clear as in *clam up* or parts are equally important as in reduplication (*so so*) this could be seen as two headedness, or headlessness, as there is no relation of dominance or modification. I based my classification of headedness on a judgment of metonymy, and on lexical content, thus *sweet sour* is two headed for me, whereas *so so* would be headless.

Distribution of class over right and left headedness is not even. Of the right headed compounds, 72% were nouns, 10% VV>V compounds. Of the left headed compounds, (a third in number of the right headed) 90% were verbs.

The number of right headed NN.n compounds and left headed verbal compounds in Nama and English is strikingly similar, as well as very dominant in the compounding in both languages, which should be noted now, as I'll return to this in the discussion.

Structural (class) compositionality in compounds

If we count the number of times a compound is compositional in terms of class, that is the class of the head is the same as the class of the compound, and compare it to the number of instances of the compounds in each class we get this result:

NAMA

	right headed	left headed	double headed
nouns	20/20	0/1	2/2
verbs	**3/4**	8/9	**5/6**
adj/adv	0/3	0	0

ENGLISH

	right headed	left headed	double headed
nouns	19/19	0/1	1/1
verbs	0/2	10/10	0
adj/adv	1/3	0	0/2

The similarity in proportions of compositional compounds is striking, except for the high number of verbal compounds in Nama that are not left headed, compared to English. Class compositionality in both languages appears to be very high for noun compounds and verbal compounds but poor for adverbial or adjectival ones, which are rarer as it is, so that overall compositionality is high.

7.6 Productivity of individual R1 (first roots)

We have seen from the literature that the VV.v, NN.n and VN.n are probably the most productive compounding rules in Nama, depending on sampling of course, because my sample though not contradicting this, shows VN.n and NN.n to lag way behind the super productive form VV.v. The literature offers NN.n and VP.v as the most productive in English, and my small compounding sample substantiates this. These two compounding forms dominate by quite a margin.

I wished to determine the most productive type of first roots in Nama compounds, in a random sample, rating productivity of an R1 by the number of words it formed, both compounds and affixations.

The twenty most frequent were:

Ai	x. of surface	200
mâ	v. come to standstill, stop, pause	165
Ai	first in time, surface, face, in front, fore-, pre-	150
mû	vt. See	113
mî	vt. say, speak, tell	107
mâi	vt. set, put up, erect, plant	100
kō	vt have eyes open, measure	100
dī	vt transact, execute, treat	100
dī	vt transact	100
mî	vt say, speak ill of	97
Kai	big, great	96
Am	x. (bound) - in ams (mouth) contractual sense	94
khoe	bound root – human	80
ǂnau	beat, throb, palpitate, hit ,flog	75
ǂan	to know	75
ǁnā	v.t. leave alone, fall in battle, drop out	75

dā	step, tread	75
dā	step, tread	75
hō	vt obtain, receive	71
khôa	vt break, fracture, quarry	70

And the twenty least productive were:

ǂui	vi peep through opening	1
ǀgara	VT hamper, hinder, impede	1
kamab	n. specific time of day	1
abob	n. father	1
gauru	vt be on the way	1
dommi	n. throat, voice	1
speki	n. bacon (Afrikaans)	1
ǂans	vt knowledge/awareness	1
gūb/s	n. sheep	1
kharob	n. bed	1
ǂui	vi peep through opening	1
ammi	n. right arm, right hand, beak, furrow	1
khedeb	n. chain (from Kette, (German))	1
!nās	n. turn, chance, opportunity.	2
!nâb	n. light, visible radiation	2
!ā	vt look out for something with shaded eyes	2
ǁoas	n. kiss	2
Oas	n. detatchable arrow tip	2
Oro	vt buck, throw rider/burden	2
Rand	n. south african currency	2
!apa/!awa	vts to scratch something across the eyes	3

It is apparent that transitive verbs dominate the list of highly productive forms

We also see some ‘x’ forms. This is how I named roots which only acquire class in concatenations.

7.7 Schemata

I had no example from the literature of what appearance schemata would have, bar that of Tuggy such as *food noun + food noun = food noun* (examples like *apple pie*) (2005:248), therefore I had to experiment with some descriptions, and came up with examples like :

cart horse: noun, inanimate thing worked with + noun, animate being doing the work = type of the head (right).

This covers a very large group of compounds. However the schema can be divided into subtypes for example many of these compounds are occupational descriptions such as *truck driver*. In a subtype

of these the inanimate modifier is the product made by people of this job description, such as *cabinet maker* and there is another subtype in which the head is a general, gendered human description, such as *man, boy, woman, girl*, for example *conman, busboy, washerwoman*, and *callgirl*, all job descriptions. In my sample I analyzed English compositionality to show that schemata of many different types and level of abstraction can be chosen.

Schemata with endocentric compounds N1 + N2 = N or NN.n

card board	N1 used **for** N a kind of N2	card is material for cardboard, a kind of board
card games	N1used **for** N a kind of N2	cards used in card games, a type of game
cart horse	N1 used **by** N a kind of N2	a cart is pulled by a cart horse, a type of horse
cart load	N1used **for** N a kind of N2	a cart measures a cart load, a quantity of load
Cablegram	N1 used **for** N a kind of N2	cable transmits cablegram, a type of message

7.8 Theta roles

Early on during analysis, using schemata, I was surprised to find the appearance of partially formed theta roles in compounds, before being influenced by reading. Some authors suggested the assignment of theta roles in compounding (Fabb 2001: 75), and some deny their existence in compounds. I can see the problems with identification of theta roles. They appeared ambiguous, and the class of many constituents seemed uncertain. The theta roles are often not directly visible, but can be discerned if one finds a paraphrasing phrase, that is not at first apparent, from which the compound could be an abstraction. There is some missing information such as the verb: as in *a horse that pulls a cart > cart horse, a load that fills a cart > cart load*. The compound may thus be created by what could be seen as a reductive shortening process, from a previous modifying phrase, or an additive process, by the addition of implied contextual encyclopedic meaning, as in: *cart load* means *cart [filling] load*. The absence of the information, and the alienation of the classes from their usually intuitively understood productive syntactic roles must play a part in the opacity of

compounds. This is a small sample extracted from 50 to give an indication of the vagueness or rather indirectness of the theta roles.

(see 7.4 (compounding formulae) explaining the symbols)

compound	**C**	**theta relation**	**relationship of parts**	**resulting meaning**
card board	NN.n	instrument/patient + goal	material and product	kind of this product
card games	NN.n	theme + action-noun	instrument and activity	type of this activity
cart horse	NN.n	theme + agent	animal and thing it works	type of this animal
cart load	NN.n	theme + action	vehicle used and use	resulting amount
cablegram	NN.n	instrument + goal	medium and message	a kind of message

7.9 compostionality analysis with endocentric compounds of the NN.n type

(see 7.4 (compounding formulae) explaining the symbols)

card board	N1 = paper product + stiff +
	N2 = extensive + large + flat + depth much smaller than surface + wooden +
	N = features of N1 plus N2 minus wooden
card games	N1 = paper product + stiff + printed with numbers and symbols + sets of 13 x4 +
	N2 = rules + leisure activity +
	N = N2 using N1 or N = type of N2
cart horse	N1 = vehicle + with wheels + propelled by animate entity +
	N2 = horse +
	N = type of N2 that works with N1 **plus** variety of N2 specifically bred to pull heavy weights
cart load	N1 = vehicle + with wheels + propelled by animate entity +
	N2 = heavy + carried +
	N = type of N2 defined by capacity of N1
Cablegram	N1 = thin flexible can be very long + carries electricity +
	N2 = foreign N limited use, for types of messaging
	N = type of N2 using N1 as a medium of transmission

For a further more detailed example:

colour coded text for understanding the table explained below:

1) *In grey italics are senses in the constituents that I believe have been ignored in the formation of the compound*
2) **In heavy black type are senses that appear to have been added during the formation of the compound**
3) In normal type are senses I see as being continued forward from the compound constituents

N1+N2=N	Paraphrase	feature analysis
Car	selfpowered vehicle with wheels for Transporting up to 6 humans *wheeled vehicle towed by locomotive*	N1 = vehicle + household + exterior use + transport of humans + self propelled +
man	mature male human	N2 = male + mature +
Carman	person, adult male, whose work involves a specific type of activity with car	N = N1 + N2 plus in relation **(implying N2's employment has something to do with N1)**
Case	one documented instance of crime, litigation, medical problem *a hollow holder for loose objects. such as clothes or documents empty or hollow or abandoned shell hard outer shell of something*	N1 = a particular instance + subject [legal, medical, criminal] + documented + processeed professionaly +
History	a recorded set of events	N2 = chronology of separate events + spread out over time + documented or otherwise preserved +
case history	a series of documented interactions, about individual's medical problems	N = N1 + N2 **(N2 turns N1 into multiple instances)**
Cart	*animal drawn vehicle*	N1 = vehicle + animal drawn + exterior +
wheel	*two round flat attachments to cart, facilitating its movement by* rotating	N2 = *round + spoked +* freely rotating around axis +*essential part of N1 +* moving forward as it rotates +
cart wheel	**rotating human movement in which arms and legs** rotate like wheel spokes	N = freely rotating around axis +, moving forward as it rotates + **body movement + (person + person isn't pinned through waist +)**
Carte	french for card	N1 = stiff + paper product +
Blanche	french for white, or unmarked	white +
carte blanche	**permission to do as one pleases**	N = N1 + N2 **(implication white because unmarked paper) (unmarked because unwritten) (writing would be instructions) (therefore unrestricted permission to act)**

The above analysis of compositionality of meaning was attempted by breaking up words into sense components until a point is reached where there are attributes common to compound and component.

The method has circular aspects, as one needs to find commonality in meaning between components and compound, but I was expecting higher levels of opacity, having just read Taylor (2012) who makes strong claims for the lack of compositionality in word meaning throughout his book and in a qualified sense towards its conclusion (Taylor 2012:285). There appears to be widespread compositionality of meaning in some form. However, Fabb's (2001:66) statement that compounds are analyzable but not predictable holds true.

7.10 The first root *ai* and meaning extension

To observe meaning extension, one needs to analyze contextual aspects of word meaning that lead to meaning extension, and this was done in the positional first root *ai* in Nama compounds, inspired by Evans and Tyler's analysis of the preposition *in* in English, but the context is provided by concatenation in a compound, not in a sentence, as with *in*.

compound & constituents	**Gloss**	**ai-English Equivalent**
ǎiś ǂàmà	**lie face downwards**	face -
Ais	Face	
ǂama	post position – about	
ǎiś ǀkhǎáb	**front side, face, facing**	face -
ǀkhāb/s	1 body (SOROB)	
	2 side, direction	
	3 surface	
Ǎi àǒsènni	**sweat from the face**	facial -
aosen –	Sweat	

Ấi˝ïísib	**picture / facial complexion**	facial -
ī	stative, look, appear, seem	
si	abstract Noun suffix (ness, hood, ity)	
b	nominal suffix masc	
ấi‡khúrùb	**central vein on forehead**	fore/face
ǂkhurub	Vein	
ấi‡àm̀mm̀b	**Topsoil**	surface -
ǂammeb	not found in H & E dictionary	
ǂam	v.t. de-bark a tree, a. lower, a. elitist	
e	suffix denoting vocative	
b	nominaliziing suffix masculine	
ấi‡hàrùbè	**Prepalatal**	Pre
ǂharub	Palate	
ấi˝!ùù̀b	**cannot of fore leg**	fore -
!ūb	shin bone/tibia of human, ungulate	
ấi˝!ùù̀s	**carpal section of front leg**	fore -
!ūs	forehead ???	
Ấi˝khóő̀b	**foreskin, prepuce**	fore -
Khōb	Skin	
ấiǁgàùs	**example, illustration**	pre-/first
ǁgau	construct with thorn bushes	
ǁgaus	homestead, hearth group	
ấímù ùǀgárù	**Prognosticate**	pre -
mu	See	
U	? No known grammatical element	
ˈǀgárù	scatter, be incoherent, talk deliriously	
ấi˝!ő́rábè̀b	**inner incisor (also called central)**	front-
!ora	pluck, pick, one by one	
!orabep	tick (zool)	
ấi‡hòmî	**prepare, get ready**	Pre
ǂhomisen	ready to use	

From this table, one sees that the senses of *ai* can be grouped in the following ways:

Face-

Facial - Of the face

Surface – the outer layer

Fore- forward on the body

Pre – first in time

Example – first in learning process

And these can be regrouped in a network hypothesizing possible origins in embodiment, and expansion of meaning towards abstraction as in Evans and Tyler (2004) in their treatment of the preposition *in*.

Face > *of the face* > *surface*

> *forward on body* > *coming first spatially*

>*preceding*

> *example*

7.11 Tone

At first perusal, the lexical tone of short words appears to be arbitrary, to have no regular meaning in itself, in that a particular tone pattern does not appear to transform all short words in the same way. The examples below are taken from Haacke and Eiseb's (2002) dictionary using their tonal marking, but a much larger sample and mother tongue knowledge would be necessary to add to this.

Examples of lexical tone in Namagowab

à	sam	stative aspect marker f. esp. present tense
á	hp	particle introducing hortative sentences
……		
ǜá	n	yes
àā̋	v.i.	cry, weep, bawl, howl, pule, growl, rumble, complain
áà	v.t	v.t. drink
……		
o̜	adj suff	adjectivising privative suffix… less, without…
ó	conj.	(sentence initial) (and) then
……		
hä̃à	asp	aspect marker denoting completed perfective aspect
hà̃ā̋	v.i.	stat be present/there, be (in/at a place, exist, be reality
há̃ā	v.i.	stay, remain, stay on/behind, remain behind,
……		
-xä	adj. suff	w. nouns full of-,rich in-: w. verbs keen/inclined to-
-xà	postpos.	from, of; by (w. passive): about
……		
xaa	ideo.	Denoting tearing noise of material,
xáà	v.t	attack/fall upon/assault/assail (in group, esp w. pincer move-

(this small sample is selected from the Haacke-Eiseb dictionary and transcribed using its tonal orthography)

7.12 Themes

To see the thematic cover of the two lexica, in terms of broad subjects containing the greatest number of words, samples of 100 lexical items from both dictionaries were grouped under themes, with some in multiple groups creating overlap:

Overall the top ten themes in both languages:

Lexical themes Nama sample	
Concrete	77
Abstract	32
Natural science	29
Medical	24
Human behavior	21
Scientific	18
Artifact	13
Movement	13
Social behaviour	13
Plant	9
Physical state	6
Animal	6

Lexical themes English sample	
concrete	66
abstract	41
artifact	20
human behavior	15
social behavior	13
legal	11
evaluate	8
any behavior	8
scientific	6
person	4
animal	4
substance	3

The lexical themes by broad super category:

Lexical themes Nama sample		Lexical themes English sample	
PEOPLE, MAN-MADE AND THE SOCIAL			
Human behavior	21	human behavior	15
Artifact	13	artifact	20
Social behaviour	13	social behavior	13
Any behaviour	3	any behavior	8
Animal care	3	animal care	0
Person	2	person	4
Organize	1	organize	0
SCIENTIFIC, MEDICAL, THEOLOGICAL			
Natural science	29	natural science	3
Medical	24	medical	3
Scientific	18	scientific	6
Movement	13	movement	3
Physical state	6	physical state	2
Substance	3	substance	3
Time	2	time	1
Form	1	form	0
Religion	1	religion	3
Evaluate	1	evaluate	8
		legal	11
NATURAL ENVIRONMENT			
Plant	9	plants	3
Animal	6	animal	4
Zoological anatomy	4	zoological anatomy	1
Animal behaviour	4	animal behavior	0
Plant behavior	2	plant behavior	0
Geology	2	geology	0
Weather	1	weather	0

8 DISCUSSION AND CONCLUSION

8.1 Intentions

The original intention of this project was to examine the processes and reasons for new lexical meaning creation by means of compounding, as opposed to de novo invention, borrowing and affixation. Based on data collection from dictionaries, I am able to conclude confidently that concatenation and extension of encyclopedic meaning are the basic and central principles of meaning creation in compounding, but affixation and borrowing also play a part. The conclusion appears somewhat banal. In fact concatenation and extension are elements of the expressive capability of language, and necessary to its basic function which is communication (Gumperz (1982) cited in Evans and Tyler (2004:2)). They are so basic as principles, that they should be found in all languages, and at all levels of language, from the morpheme and affix to the word, phrase and sentence.

However the cross linguistic context of enquiry showed different realization of these same principles. A brief aside on affixation is needed here. Extension in Namagowab is often accompanied by affixation, such that many roots are polysemic, but polysemy applying to a single form, though present, is rarer than in English. The affixations below illustrate this.

verb

ǁ*gau*	*show, point, indicate*
ǁ*gawa*	*peer into distance*
ǁ*gawa*	*hurt accidentally*
ǁ*gawe*	*hook, pull down*
ǁ*gawi*	*turn green*
ǁ*gawa khau*	*flame up*

noun

ǁ*gaub*	*arrow shaft*
ǁ*gawan*	*weapons, tools*
ǁ*gawas*	*palm*
ǁ*gawe‡ae*	*pointed upright ungulate ears*
ǁ*gawarab/s*	*caul*

adjective

ǁ*gau*	*with tama* (NEG), *indifferent*

The root ǁ*gau (unbound) or* ǁ*gaw__(bound)* shows the meaning change or polysemy cannot reside in the root, except in the case of ǁ*gawa*, as an affix is required to produce the alternative meanings, neither does it reside in the affix, as the gender suffix nominalization (for example) does not signify enough to shift the meaning in itself. The affixation does not just accomplish derivation, it changes the root's meaning. An explanation for the necessity of affixation may be the classless roots I called 'x' forms in the data. According to Haacke (1976) roots in Namagowab do not appear to have a clear syntactic category, and only the appropriate formatives give them this (see appendix, grammar section, Haacke (1976)).

But this does not explain what is happening during these semantic changes, such as whether there is a semantic burden on these affixes which transcends their grammatical function, and is not listed by dictionary makers to date. This is yet another instance in which a Namagowab speaker's lexical knowledge would be vital.

Returning to the theory reading, and the original question. The reading under delivered in terms of explaining how meaning is made in encyclopedic concatenation, but gave more information than I expected, by implication and interpretation, on the possible reasons for compounding, which is somewhat taken fore granted in lexicology. In all my reading I did not encounter an explicit justification for its existence, and those which comment on the profusion of compounding in Namagowab do it from the point of view of explaining how compounds are put together (Hagmann (1977) and Haacke (1999)), and these explanations rely on typology.

8.2 What drives compounding

It is doubtful that typology alone, nor a specific language's concatenative tendencies is the sole motivation for compounding. My reading and data pointed to other issues that could have an influence on why compounds may appear. Again and again, transparency, semantic possibility, and

the issue of frequency in some form, intersected with other parameters: the need for new lexical meaning, lexicalization, productivity, learning and efficiency of communication.

8.3 Vocabulary creation

Generally, with compounds being a subset of words, the forces driving compound creation will be a subset of those driving word formation, one of these being, more broadly, the need for ways to express new meaning. In the literature, large scale changes in culture and language appear to put pressure on lexical creation. These large changes can take the form of linguistic domination, in the case of English by Latin and French, and in Khoekhoegowab, by Dutch and German. During these periods borrowing will tend to be important, as it was in the case of English. Pressure can also be created by vernacularization. The switch in scientific writing from Latin to the vernacular, roughly in the 14th to 16th centuries all around Europe, with an accompanying rapid expansion of written literature on science in the vernacular, led to vernacular vocabulary creation, rather than borrowing, at least in English, in our study (Norri 2004:115). It would seem that such major shifts would logically affect lexical creation, but only with the examination of old texts can it be solidly argued. In the case of Namagowab, a lexical expansion to meet the needs of changing technology is not visible in process over hundreds of years, as it is in English, but should be visible in retrospect, in the Khoekhoegowab dictionary today. A few examples come to mind such as ǂ*'oakunis* (*wind wagon* or aeroplane) ǀ*'urihaap* (*iron horse*, or bicycle) (Hagmann 1977: 29). Medical literature started the lexical boom in English, (Norri 2004: 110) but, the Nama lexicon of medical words is vast. The indigenous set seems much greater than what appears to have been available in early English.

Claims made about the lack of abstract terminology in Namagowab and the greater suitability of English for scientific discourse are relativized by the vocabulary in even this small sample. What is revealed in terms of thematic strengths is not pure abstraction in English, but legal, manufacturing and evaluative or judging expression, and in Namagowab a rich natural science vocabulary, involving detailed observation of natural and medical phenomena, of changes of state, and the verbal

and locative vocabulary of movement. Where Namagowab vocabulary is very diverse in the thematic specialities mentioned, English is much less so.

Since a new concept could be expressed through the extension of the meaning of an existing word, and can always be expressed through syntax, circumlocuting what may be a single word in another language, one needs to ask why new words would enter a language at all. The current availability of terminology would logically be a determinant here. It has been said the role of the lexicon is naming and that of syntax is description (Bauer 2003: 135), but this does not explain the reasons for naming a concept rather than describing it. The first answer that springs to mind is for brevity. This assumes words are shorter, but perhaps there are other reasons.

8.4 Lexicalization

The process of lexicalization (see Terminology Appendix) is much discussed in morphology literature. Initial word formation is an additive process (Aikenvald 2007: 1,2) then subtractions occur including demotivation (loss of compositionality) and semantic idiomatization (loss of semantic information (Hohenhaus 2005: 353-360)). Other authors (Gaeta and Ricca 2009:43) attribute such opacity to the addition rather than subtraction of semantic information, and based on my compositionality analysis (of meaning) in English compounds (see the Results Section) I observe both the addition and subtraction of semantic information in compounding.

The lexicalization process appears to push expressions in the direction of increasing opacity and irregularity, away from the compositional. It occurs consensually, between speakers, and in great numbers of speakers to pervade a whole group. Frequency of this knowledge in many individuals is a prerequisite. This mechanism, called institutionalization (Hohenhaus 2005: 353-360) leads to acceptance in a community. The items in the lexicon are also entrenched, whereas ‘A sentence is not entrenched through usage and therefore not a construction’ (Goldberg (1995) cited in Taylor (2012: 125). The polarization of learned, entrenched, idiomatic, irregular, versus regular, rule generated is

even present in Taylor who is absolutely contrary the lexicon grammar distinction: ‘the idiosyncrasies …. remain, suggesting, that we can accommodate two kinds of constructions, learned idiomatic-ungrammatical ones and rule generated ones’ (Taylor 2012: 142-145). This has to be a very necessary binary for him to maintain it.

8.5 Communicative efficiency and possibility and words

Individual sounds take more time to identify than syllables in speech and these take more time than words, suggesting larger entrenched units are more accessible than their components (Taylor 2012: 130). Complex expressions undergo semantic drift, away from compositional meaning, indicating they are stored whole in memory (Taylor 2012: 131). This is also implied as a generally known fact in his criticism of Fodor who predicted that multiple polysemic words in a sentence would increase processing time, because of all the computation needed, while Taylor claims polysemes are stored as wholes, and words are not analyzable (Taylor 2012: 224). Generation may actually slow down speech production (Taylor 2012: 133). From all of this, I interpret that generation speed is slower than lexical access, or computation slower than memory. Retrieving an entrenched word would be quicker than syntactic circumlocution, in the processing, not just briefer in performance. What is in the mental lexicon is shaped by memory: ‘The lexicon is the store of words in long term memory from which the grammar constructs phrases and sentences’ say Cruse (2000b:238) and Jackendoff (2002:39, 130) cited in Taylor (2012: 20-21). From this quote we can also see that memory and generation constitute two poles in foundational discourse. For Pustejovsky for instance, memory is limited, and generation must fill this shortfall, even in the lexicon (Pustejovsky 1998: 40) This is called the parsimonious approach by Geeraertz (2010: 146). Semantic information and marked forms are stored in the mental lexicon. Contextual meaning is derived pragmatically (Šteckauer et al : 2005) and the majority of words are not in the lexicon but generated by word formation rules to avoid taxing memory. In Taylor, memory is nearly unlimited, because we have memory of statistical information on all aspects of language, and there is no place for rules (Taylor 2012: 127). We see this binary clearly in the discussion of idioms defined as entrenched rather than generated,

remembered as a whole, rather than analyzable. Generally, idiom is defined as unexplainable by syntactic, semantic or lexical rules (Taylor 2012: 69) (see my table of idioms with irregular syntax and lexicality near the end of section 4.3). The binaries draw a boundary around the mental lexicon, separating it from other forms of mental processing. Yet another set of boundaries constructed by linguists is that between semantics, the dictionary and the world (Geeraerts (2010:120) citing Thomason (1974a)).

The literature sources explain how lexicalization after a word is coined, may be driven by repetition, acceptance and memory, but not how words are created. This must be driven by a need that causes the creation of a new term rather than the use with extension, of an old term. We also need information on why a compound, rather than a regular affixation, would be chosen.

Following Taylor's argument, lexical categories are derivative. NP's etc. are a shorthand for the permissible positioning in constructions. Then there are as many NP categories as there are NP using constructions (Croft (2001,2007) cited in Taylor (2012:138-139)). We can see from this that as soon as a syntactical concatenation, for example, were to condense into a single item which was its rough equivalent, a bracketed parcel we call a word, it would acquire this quality, lexical category, which would be a shorthand for its possible positioning in constructions, and this shorthand would possibly be very diversified, condensed as it is from sub categories of patterning.

Pustejovsky claims that if we change the way lexical categories can denote, it changes the form of compositionality. The infinite number of novel meanings in new contexts do not constitute infinite polysemy (Pustejovsky 1998: 43) but sense alterations as regular as the transformations in syntax (Pustejovsky 1998: 42). From this, regular transformations in lexical categories affect sense alterations.

If we knit this together, ignoring the ideological gulf between the two authors, then a part of the quality of words would be that they have lexical category, a shorthand for a set of possible relationships, as such they not only have a valency which determines their possible use, but their use has a very particular significance. It is the condensation of larger structures of meaning like sentences into a single unit in the process of word creation that is of interest, and the later use of this element with its enormous powers of condensed signification.

The importance of a word being a shorthand, is that if we go back to the issue of speed or generation versus memory retrieval, the retrieval of a shorthand for a complex syntactic circumlocution involves a saving in time in speech generation and production because retrieving from memory is faster than generation, and producing a more compact way of saying (roughly) the same thing, so that it takes less time to say, a double time saving. This would explain why it would be conveniently time saving to retrieve a word from memory, but not why it is created in the first place, although it does help to motivate the creation of words.

8.6 The communicative strength of compounds

When there is a need for one of these shortcuts, current productivity may determine the form it takes. Suffixation, then affixation and then compounding are the most common way of forming new words (Bauer 2003: 49). But there are differences in productivity within these categories. These productive word formation processes may be regular, but this regularity would be historically invisible in dictionaries, which represent past and not present productivity (Bauer 2003: 170). Reading into this, current highly productive and regular patterns in compounding would offer themselves as regular and transparent processes at the time of formation, and give rise to a lot of new compounds, and in a short time, before the compounds entered the dictionary, this transparency, or the easily readable regularity would become invisible. I interpret this to mean that the regularity or the rule coining the compounds could not be part of the main stream of concatenation in language, syntax, or the

concatenation rules would remain transparent, either that or syntax rules are also constantly changing.

In some cases, whichever your ideological leanings within morphology, syntax may determine the original concatenation, at the point of word creation, especially in compounds. Although it is much disputed, many authors believe syntax is involved in word formation (Halle and Marantz (1993), Pretorius and Oosthuizen (2012), Rosenbach (cited in Taylor 2012: 285), Fabb (2001:82), (Harley 2004: 2) and many which deny syntax's contribution to word formation, yet give an exceptional status to compounds. According to Spencer (1991:309) there is no satisfactory way of separating a compound and a phrase, and in Bauer's words when discussing the historical process by which compound components have become affixes: 'Today's morphology is yesterday's syntax' (Bauer 2003: 270). In order to be constructed easily and understood easily, regular, transparent structures would be the most natural option. Regular affixation, especially in Nama (see appendix 12.02 comparing affixation in Khoekhoegowab and English) would be an obvious option, iff it covered the expressive need the new term requires.

Given the limited semantic contribution of affixation the widest possible semantic possibility in a compact, roughly two part combination, short of syntax, (and even that will be limited by class combination restrictions) is provided by compounding. According to Downing (1977) cited in Soegaard (2005:1), an infinite number of compounding relationships is possible, and I add, this is not so with affixes. The possibilities of meaning in the use of a single polyseme in new contexts are also infinite but do not constitute infinite polysemy (Pustejovsky 1998: 43). Whether or not we agree entirely with this, on top of the combinatorial patterns possible, the combination of two or more parts with encyclopedic meaning also has multiplicative power. By definition a compound will be the combination of at least two roots, or two words, and words contain roots, and roots have encyclopedic meaning (Marantz 1997:4). This offers huge potential, *all roots/words in a lexicon* times *all roots/words in a lexicon* is a large number, even if it is not infinite.

The multiplicative possibilities of combining encyclopedic meaning in word generation is enhanced by the possibility of concatenating subsets. A subset principle is mentioned in Marantz and Halle (1993:116, 122, 130, 132) 'The phonological exponent of a vocabulary item is inserted.... if the item matches all or a subset of the grammatical features specified in the terminal morpheme'. If Marantz and Halle are right, then the ability to compute grammatical feature subsets and match them to phonological components must be part of how we process lexical choices. If this ability is transferable to working with subsets of meaning, we could account for a number of problems with a fully compositional model of compound semantics. However, this seems to realign with generative semantics and feature based description (Pustejovsky in *Lexical semantics* section) through attempting to analyze the components of encyclopedic meaning, and many have thought that feature based definition was impossible, including Wittgenstein (cited in Shannon (88:72)).

In the data I saw what appears to be widespread but incomplete compositionality in compounding, with few clean one to one form meaning relationships extending right through the concatenation process. This could be explained by subsets of meaning. If subsets (and these subsets' exact make-up were unknown when the word is first heard) of the meaning in each constituent word are incorporated into the compound this will give rise to combinations that are not predictable from the constituents, but can be analyzed after understanding the compound. Fabb's (2001:66) statement that compound meaning is analyzable but not predictable holds true. They could also account for metaphoric thinking, blending and semantic opacity. I suggest subsets could be considered before diagnosing opacity. If semantic subsets are extended during concatenation, due to the addition of new elements, as seen in my analysis, and they are similarly extended over time, in new contexts of use, the resultant subset would have drifted from the original and present as opaque.

If the two word combination started off as a phrase, and became entrenched and lexicalized due to frequent use in response to the need of expression, it would transit from being generated, to being

recalled from memory. It would become unified, less analyzable, it would become syntactically opaque or irregular, losing functional parts and maintaining only the lexically significant ones, high on informational content, and some of the theta roles in the original circumlocution may shift over to ‘inappropriate’ classes. This would be part of the process of the formation of a shorthand. In the syntactically driven concatenation of compounds, and their consequent compression during the subtractive parts of lexicalization, we could be dealing with one of the most transparent and un-mysterious word production processes. In time these irregularities could be transferred to other compounds by habit of formation, by analogy, without having to undergo the whole process which probably takes centuries (referring back to the examples in Bauer (2003:270). The usefulness of such compounds would be twofold. In the early stages, being transparent, they would be more easy to generate, for the speaker, and to understand for the hearer. Then in time becoming entrenched in memory, widespread and opaque they would be quickly recalled from memory, by speaker and listener, leading to greater overall efficiency in communication, because opacity forces one to use memory rather than generate, or analyze. The function of language is communication (Gumperz (1982) cited in Evans and Tyler (2004:2)) but that would involve both being understood, and saying the most with the least.

In the creation of new lexical items, I think there would be competition between two factors discussed previously: the need for transparency to aid understanding and generation, and found in freshly generated compounds, and memory, to increase speed, but requiring more widespread entrenchment in the group. This binary does not clarify the origin of words. If a word structure is transparent, it need not mean that all words are generated by syntax, but there may be a semblance of syntax, a folk analysis, for the sake of transparency and understanding. Furthermore, if a construction does not appear to be syntactical, this does not prove that words are not created by syntax, originally, and have drifted away from their original regularity.

8.7 Conclusion

In conclusion, it is not only typology which drives the formation of compounds. Under the stress on the lexicon created by the need for the efficient expression of new concepts, compounds will tend to appear as they are semantically dense, yet relatively transparent, which aids comprehension, learning and generation, and also leads into lexicalization smoothly. The creation of affixes takes centuries, as can be seen in 14th century encyclopedic compound components which have become irregular affixes in English, and the future verb inflection in French deriving from the verb 'avoir' mentioned by Bauer (2003: 270). Thus compounding will have a gap filling role in the history of the lexicon of a language between the scope of expression possible through current words via extension and regular affixation, and the circumlocutions of syntax for expressing new concepts.

However speaker habits in a particular language may make compound generation easier. Returning to the communicative function, comprehension, an automatic understanding of compound concatenations and all the diversity of their 'templates' would logically be found in a language in which there are already many compounds, creating a greater likelihood of this genre of words expanding. A language's structural aspects may also add to the acceptability of complex word forms. Regular derivational affixation, as found in Namagowab (see affixation in Appendix 12.02) for clarifying the class of the components of the compound would facilitate comprehension. On the other hand, the frequency of zero class without clarifying affixation creates in the English speaker an acceptance of zero or unmarked derivation and tolerance of class flexibility, also helping the creation of compounds when they are needed. Apparently there are compound forms in Namagowab which are so productive they were not recorded in the dictionary (Hagmann 1977: 70). The dictionary may under represent the productivity of compounding in the language. This effect was described by Bauer (2003: 170), pertaining to dictionaries in general reflecting past and not present productivity.

This investigation could not clarify a position for or against syntax in words, but gave an indication in favor of the compositionality of compounds, in terms of class and encyclopedic meaning (see the

end of 7.5 *Headedness and Formulae* and 7.9 *Compostionality analysis with endocentric compounds of the NN.n type* in the Results chapter). The possibility of the existence of subsets of encyclopedic meaning and our ability to compute with them, would help explain Fabb's (2001:66) observation of post hoc analyzability as well as metaphor, extension and semantic opacity. We need to relativize the theoretical disagreements over regularity, and remember the effects of lexicalization, of time and memory on possible previous transparency.

8.8 Ideas for future research

General

1) Count the frequency of rule and exception in word formation and syntax in a wide sample.
2) Search for possible cases of the historical origin of new syntax in the lexicon, via the closeness of compounding and phrases.
3) Develop methods of analyzing irregular theta roles that may be found in compounds, separated from their customary word class adherences.
4) Test the speed of processing of words and syntax in both speech and hearing.

Crosslinguistic

5) Find universals in concatenation and extension of meaning.
6) Search for cases of ellipsis and its ability to separate word and affix over different language typologies, and test the word boundary in different languages.
7) Compare compounding, affixation and borrowing for subject themes to probe why and how specific domains of meaning are covered by specific types of word creation in different languages.
8) Test whether different kinds of opacity do indeed often go together 'a factor that is remarkable if lexical generation occurs in a haphazard way' (Fabb 2001:67) and hope to discover more about lexical generation mechanisms in different languages.

9) Test the tolerance (acceptability judgments, comprehensibility, task reaction times as indicators) of class flexibility in compound concatenations in English and Namagowab.

Namagowab

10) Start collecting a digitized Namgowab corpus of written texts.
11) Record spoken and creative written discourse to capture actual compounding productivity in Namagowab. Bauer claimed the dictionary represents past productivity, and Hagmann that many highly productive compound types are not listed, such as XN (Hagmann 1977: 28).
12) Analyze and test Haacke's rules for compound semantics in cases with marginal as opposed to core signification of the regular affixes and perturbation to investigate how highly regular forms extend their meaning in context.
13) Find evidence for a possible lexical creation boom in compounding in the last few hundred years, due to colonial contact, globalization and technological revolution. Analyze the form this boom may have taken, in terms of lexical creation strategies and lexicalization.
14) Research Khoekhoegowab's lexical strengths in detailed thematic subfields like movement and positionality, which are very interesting topics in cognitive linguistics.
15) Research the chronological history and etymology of items in Khoekhoegowab lexicon comparing lexica in regional and colonial languages to project the chronological age of cognates and the history of terminological borrowing and its patterning.
16) Research affix order in Namagowab, which is connected to historical factors in English.
17) Find out from speakers if there is a semantic burden on the nominalizing gender affix which transcends its grammatical function, as suggested by Dausab in a workshop in 2008.
18) We have seen the high number of short words in the lexicon differentiated in sense by tone. Lexical tone in small words appears arbitrary. Test to see if it is in fact arbitrary, or if lexical tone carries a semantic burden that adds compositionally to the meaning of the short word. There appears to be regularity in the semantic contribution of tone perturbation, according to Haacke (1999).

Test in Namagowab the assumptions based on other languages

19) Fabb (2001: 75) denies the involvement of syntax in compounds. They are insensitive to constituent structure, inert, without movement. Test if incorporations and synthetic compounds have structure visible to syntax and some form of theta role assignment.

20) Test whether the stated morphological and syntactic properties (Bauer 2003: 135) of compounds are universal, requiring learning as units, naming rather than describing, instantly coinable and mostly analyzable.

21) Test the similarity of phrase formulae to compounding formulae as was proposed in English examples by Selkirk (1982:14-16): N > [N, A, V, P] N etc. in Namagowab.

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[i] Shula Marks and Robert Ross dispute the significance of the smallpox epidemic "as a major factor in the destruction of the KhoeKhoe" (Marks (1972) and Shell (no date) discussed in Guelke and Shell (no date, but a version was published in Journal of South African Studies Dec 1992))

[ii]

See bibliography and appendix for multiple websites consulted on English history, Norman and Roman conquest, expansion of English and colonialism. They have not been cited in text or here, as it would be too disruptive (8 url's involved) .

[iii] **Lancastrian Monarchy** a dynasty of English Kings all named Henry, father, son and grandson, whose reign stretched from 1399 to 1471. They promoted English as a national language

Henry IV made the first public address in English.

Henry V promoted English starting in August 1417 in government writing, anecdotal evidence is that previous monarchs understood some English but didn't write in it, his reign marks the appearance of chancery standard English, an adaption of English as language of record in government. He is the first king to use it in personal correspondence since 1066. The promotion of English is political of course, nationalistic, and accompanied by power struggles with France, which he almost overthrows. He fought three major campaigns in France and was recognized as heir to the French throne.

Henry VI, King of France and England, (Henri II of France) reigned for 39 years, Joan of Arc was resisting England in the 100 years war. He probably had her taken prisoner and burned as a witch. Founded Eton and King's college Cambridge.

See appendix, and bibliography for websites consulted on English history, Lancastrian monarchy

[iv]

A point made by Pahta and Taavitsainen is that readership is central to the vernacularization process. There is the discourse community, the potential readership, and then the actual readership (Taavitsainen and Pahta 2004: 15). In the case of English medical writing, the potential audience was only limited by literacy, because health is of universal interest to people of all ranks. The estimates of literacy at the time range from and optimistic 40% among merchants, to 3% as the lower margin for rural women. In the dynamics of vernacularization, text production and literacy fuel each other (Taavitsainen and Pahta 2004: 15).

The first vernacular writing was as previously noted, copied from Latin texts, and the content was popular and practical rather than erudite: including a lot of recipes and herbals (144 Martti Maekinen). The patterns of vernacularization vary across Europe (Ruth Carroll Taavitsainen and Pahta 2004: 174)

[v] During Norri's survey of the Oxford dictionary, middle English dictionary, and various medieval texts, vernacular English vocabulary items first appearing in or before the 12th C amount to 176, in the 12th C itself, 14, in the 13th, 43, in the 14th, 539, in the 15th, 1313 and in the 16th, 279 (Juhani Norri in Taavitsainen and Pahta 2004: 110).

[vi]

Each metaphor highlighted "a singularity of the disorder" for example a blast is the term for sudden onset eye conditions, and resonates with old Anglo Saxon belief in flying venoms "evil winds, contagious heat". Animal metaphors were used to describe the course of consuming or corroding sickness (Juhani Norri in Taavitsainen and Pahta 2004: 115) and animal actions were used for pain (frets and pinchings, gnawing and pricking) (norri in Taavitsainen and Pahta 2004: 16). Protrusions were named for familiar objects of the same shape, for example an eyelid "hail or corn" (pustule) nail (wing like structure), and round bumps called knot, knap knarle, or knorre. Body parts were likewise named for similarly shaped objects such as apple for the pupil of the eye (Juhani Norri in Taavitsainen and Pahta 2004: 116) and can extend to similarities in structure such as feather for lung lobes. Metonymy was not used often (Juhani Norri in Taavitsainen and Pahta 2004: 117), with few examples such as "the pox" (a pocke was a pimple) standing for the whole disease, syphalis (Juhani Norri in Taavitsainen and Pahta 2004: 118).

[vii] **not contrastive, in complementary distribution; in free variation.**

Contrastive distribution in linguistics, as opposed to complementary distribution or free variation, is the relationship between two different elements, where both elements are found in the same environment with a change in meaning.
In morphology, two morphemes are in contrastive distribution if they occur in the same environment, but have different meanings.

viii **Word identification by omission of constituents**

**I think its disgraceful, and gusting* (1988: 66)
We saw the engine, and guard's van (1988: 67).

Allowing isolation of 'the', and leading to his definition: "the smallest unit which can be omitted when it would be identical with another element occurring earlier in the discourse"(Bauer 1988: 67). Once again, this is not universal. All in all there is no satisfactory definition.

ix According to Gaeta and Ricca (2009) a compound must be one phonological string, without interruption by inflectional material, consist of at least two lexical morphemes, ruling out affixations and functional words forms like preposition-N, N preposition N, or V det N, combinations It must be [+ morphological], ie: formed via 'some template' which is not syntactical (Gaeta and Ricca 43). Furthermore, If there are morphosyntactic properties like Agr, its not a compound: *reitende artillerie* > *eignetum der rietende**n** Artillerie* (Gaeta and Ricca 2009: 36) just a name. True compounds cannot be naming units.

x

What is a compound
The boundaries of the compound concept are disputed along the lines of permission of concatenated stems, not only words, left headedness for endocentrics, the inclusion of phrases, regularity of inflection, presence of function words and prepositions, stress, and hyphenation (not reliable) to distinguish compounds (Bauer 1988: 134). Not all authors see incorporations as compounds. Formation processes, whether morphological or syntactic, may be used to differentiate between types.

xi **Binary structure in compounds and affixation**

groups nonsense compounds like {[tweetle [beetle]] {[bottle [puddle [paddle [battle]]]}} muddle (Bauer 1988: 184), and derivations, as in [en[courage]]ment, there being no such thing as couragement.

xii **Mistaken dismissal of productivity**

Her criticism of other theorists' views on productivity is that for Halle (1973) (Bauer 1988: 173), the output of word formation rules are filtered so that only existing words are entered in the lexicon, and used, and he is dismissive, Jackendoff (Bauer 1988: 172) believes productivity is rare, citing the example of compound nouns in English. However, Thiel found that 62% of the compounds in die Zeit (a German newspaper) are neologisms. Furthermore derivation is extremely productive in Eskimo, and some agglutinative concatenations are as singular as sentences (Bauer 1988: 172). Similarly skeptical of the productivity of WFR's, Aronhoff (1976) believes word formation rules operate 'once only' when the word is coined, unlike syntax. He believes this explains why speakers can use words whose etymology is unknown to them (Bauer 1988: 171).

xiii **A proof of headedness for Anderson**

This can only be seen (as both head and inflection will usually be on the right), in cases with irregular inflection like "scrubwomen", giving a proof of internal structure for Anderson, and the obverse for Lieber.

xiv **Harley's understanding of incorporation**

She must have a broader understanding of 'incorporate' than that in the mainstream definitions of 'incorporation' which refere to verb-object concatenation as in *cutthroat*, because so few compounds are of this structure.

xv **Wiki explaining core theory of DM**

Morpheme order
The morpheme order produced in syntax is hierarchical, therefore during realization, the linear order eg: infix, suffix, prefix) is determined by post-syntactic morphological operations, such as Lowering and Local Dislocation.
Meaning in Distributed Morphology
There are two types of meaning: that of the bundles of features from the Lexicon and the idiosyncratic meaning from the Encyclopedia, which may be associated with particular lexical roots. Once again I question the introduction of new meaning once a speaker has planned and executed her utterance.
Allomorphy
Phonologically-conditioned allomorphy is a selection process performed on variants, and depending on the phonology of the Vocabulary item. Morphologically conditioned allomorphy may involve suppletion (dissimilar sounding : go/went) or readjustment rules (buy/bought). They apply to a single terminal node Vocabulary item - unlike affixes that combine two separate terminal nodes with distinct realizations. In early work syntax acted on single, abstract lexical roots existing in free variation, without competition, but recently its been suggested the selection of roots may be restricted (Embick 2000, Pfau 2000, Marantz 2013) and subject to competition.
Morphological Paradigms: *Because these manifest postsyntactically they are epiphenomena, and their lack of regularity and completeness is accounted for by the competition which occurs in competition for vocabulary insertion.*

xvi **Authorship on compound constituent categories**

Authors using labels based on the syntactical categories of the compound consituents, such as NN, NV, are Hagmann (1977), Spencer (2005)(describing the productivity and restrictions on compounds), Fabb (2005) (formulae like NN%N) and Selkirk (1982) for his compounds which obey phrase structure rules N > [N, A, V, P] N (cited in Spencer 1991: 322). X → X X expresses a general formula for like-like concatenation. The large number of cases like Adj →Adj Adj (icy cold, greenish blue) N → N N (airport) and V → V V (sleepwalk) Prep → Prep Prep (into, onto, out of) this justifies rule formulation (Taylor 2012).

xvii

Panini and early Sanskrit Linguistics

Of the ancient Indian grammarians, Panini is the best known. Between the 7th and 5th centuries BC (Crystal 1992) he wrote the "Eight Books" a grammarians grammar not designed for teaching, whose phonetic, grammatical and morphological description was not matched in Europe till 2000 years later (Malmkjaer 1991).

[xviii] **Morphological Typology**

Pure isolating would contain no obligatory bound morphs, all words should be invariable, the closest are Chinese and Vietnamese. Pure agglutinating would have obligatory bound morphemes realized by a single morph, that cited as the most typical is Turkish, although its bound morphs do not have constant form, and Swahili (232). Pure fusional languages should contain obligatory bound morphs, with no simple one to one morph to morpheme relationship, eg: Greek and Latin. A fourth much more controversial type, Polysynthetic is proposed in which there is a high density of obligatory bound morphs and they are semantically more important than most, even derivational, affixes. The words are semantically like whole sentences. Examples are many Amerindian languages like Eskimo(233).

[xix] **Contour and register tone**

According to Malmkjaer, the criteria for dividing up tone languages are the lexical versus morphological function, and the predictability on the basis of grammar, as well as the tone's form, that is contour or register (Malmkjaer 1991:476). Gliding tone systems are differentiated by direction of glide, and the contrast of gliding and level tones, and the register systems level tones are differentiated by relative pitch. As Duanmu makes clear, the contour – register binary is an abstraction off reality, and hybrid systems are common.

[xx] For an overview, a comparative review of tone theory, such as that of Daunmu (2004) is useful. He is blatantly anti-typological. He claims that binary typologies of tone have failed. Actually the selection of tonal and phonological repertoires has consequences for the form the system takes, and all have a nearly unique shape.

[xxi] **Tone's possible effect on word size, compounding and function**

Bearing the failure of tone typology in mind, there are some interesting correlations between tone and morphology. Malmkjaer (1991:475) states that logically, languages with polysyllabic roots can have smaller tone inventories, because the polysyllables multiply the tonal melodies. According to Li and Thompson, predominantly lexical function correlates with contour tone and grammatical use with register tone (in which Chinese versus African tone systems are used as an illustration). Li and Thompson (1978:238) observe that Asian languages have fewer complex tones than African, where they play more of a role in syntax. Pike describes an African pattern of tonality, with register tone in polysyllabic roots (examples of East African languages are contrasted with East Asian Languages in Pike (1948). This suggests stereotypical binary of small register tone repetoire combining in polysyllabic roots to form complex melodies with grammatical function in Africa and varied contour tone systems having lexical meaning in simple monosyllabic roots in Asia and New Guinea. Indeed, in Capell's 'Two Tonal Languages of New Guinea' (Capell 1949) there was a suggestion or implication, of a connection between semantic tone and monosyllaby.

[xxii] Haacke criticizes this as being a generalizing simplification. Compared to Haacke's 200 pages of intricate perturbation rules and contexts, I'd say it was an elegant simplification, because Hagmann's book is a teaching grammar, and it should be taken in this context, and his rule works in the majority of cases. I can see that Beach's (1938) tone system breaks a basic sound rule, that no system has more than one rising or more than one falling tone, due to the inclination to reach maximum distribution of tone contour types (Pike 1948). Haacke's register system cannot violate this maxim, but Pike should be considered critically, if Duanmu is right about the poor cover of tone typologies, Pike's rules may also have a poor percentage of compliance**.**

[xxiii] **special or semanticosyntactic sound ?**

Flip flop (a tone perturbation pattern) occurs only in compounds (Haacke 1999: 73). True compounds are always identifiable by the morphotonemic alteration in the two parts (Hagmann 1977:70) unless they have zero perturbation. Word internal tonal behaviour in Nama compounds is not conditioned phonologically, but by grammar operations, meaning and contrastive effect. Seeking phonological conditioning leads to bewildering complexity (Haacke 1999).

Haacke Embedding and Sandhi Grammatical context can trigger perturbation, but only in embedded compounds, it isn't a way of signaling grammatical context across the language in general.

[xxiv] **some details of word internal phonological behavior in compounds**

The Tonal behavior of compounds involves either Sandhi, flip flop or retention(Haacke 1999: 71). Detailed description of the perturbations is in the appendix. Flip flop can be triggered by lexical or grammatical formatives (Haacke 1999: 119). In noun derivation, gerunds (ending in –s) may undergo flip flop to differentiate from nouns ending in the –s gender inflection. There can be perturbation in endocentric compounds, to mark the head (Haacke 1999: 150).

[xxv] word meaning relations such as antonymy, synonymy etc.

[xxvi] Descriptive methods in generative semantics, Pustejovsky's 'the Generative Lexicon' is full of examples of lengthy notational semantic descriptions of words

[xxvii] maximalist referring to the conception and description of the lexicon which seeks to explain semantic flexibility more fully

[xxviii] **Pustejovsky's elements of qualia structure for 'book':**

Agentive – how is it made – for example: write
Constitutive - what it is made of, what is in it : information
Formal – what is it broadly : a physical object
Telic – what do you do with it : read
(Pustejovsky 1993)

[xxix] A lexical item or phrase is forced into a certain interpretation by a governing item in the phrase without changing its syntactic type, apparently its another word for 'conversion'.

[xxx] **componential analysis** analyzing meaning into subcomponents describing the internal relationships within a field of semantically related items, decomposing them into contrastive relationships

[xxxi] **compositional approach** in which the meaning of an expression must be accounted for by the meaning of its parts

[xxxii] **relational semantics** example being Kripke's frame semantics which is for propositions and not so much for 'word' meaning

[xxxiii] **NSM, primitives**

These concepts are connected. NSM is a language composed of semantic primitives that cannot be defined in simpler terms and are universal, for example: "*thing*". More complex concepts are submitted to reductive paraphrasing, being broken down into such simple concepts.

[xxxiv] **perspectivation** Concepts like 'perspective', 'perspectivation', 'point of view' and other related notions have come to be established among the most important topics in all disciplines concerned with how meaning is constituted and negotiated in interaction, it involves the difference between knowing something - which can be objectively verified - and having a perspective on something, which cannot be (dis)proven but which has to be negotiated in conversation, and one of the properties of perspectives is a. "specific ways of viewing, understanding, and portraying the things talked about" http://www.cognitivelinguistics.org/Reviews/graumann

[xxxv]

The grammaticalization theory of Bernd Heine (1991-2002, cited in Geeraerts 2010) broached, amongst other topics, the nominal character of certain numbers and the clause like structure of others due to universals in human experience based on the number of fingers in the human hand.

[xxxvi] **The etymology of –hood**

suffix, originally Central German independent noun meaning person, sex, condition, rank, quality OE häd Old Saxon Hëd the transition from independence to suffix via compounding led to a situation of co-existence of different forms in OE, and leading to high German –heit (The Oxford Dictionary of English Etymology) another example of affix origins in compounding.

[xxxvii]

Orthography – In defense of the use of the term 'orthography' here, for which I was criticized by my external examiners, I have to let it be known I unfortunately failed to find a suitable alternative term, and justify my continued use of this term with a citation from an article which exactly describes this area of terminology by an expert in the field: S. Bird. 1998. "When Marking Tone Reduces Fluency: An **Orthography** Experiment in Cameroon". *University of Edinburgh.*

*"**A set of principles whereby tonal distinctions are represented** (or under-represented) **orthographically** is known as a tone **orthography**. Although some tone languages are not written with tone marks, it will often be convenient to think of them as still having **a tone orthography**, but with complete under-representation: 'zero tone marking'. All too often, tone orthographies are established by fiat and defended by anecdote. Whether or not tone is marked, the most frequently cited justifications offered by the designers are either linguistic analysis, or socio-political factors, or an impressionistic evaluation that 'we tried it and it seemed to work fine'. This article presents objective evidence that an existing tone orthography for an African tone language actually hinders fluent reading and writing. A wide range of subjects were tested, covering different ages, educational backgrounds, and levels of exposure to the orthography. Their poor performance on reading and writing tasks involving tone marking challenged expectations and led to the conclusion that phonemic tone marking is not ideally suited to **languages with complex tone sandhi**. This does not mean that tone marking should be abandoned in the language. The finding simply highlights the fact that relatively little is known about the reading process for alphabetic **orthographies** decorated with tone diacritics".*

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(numerous search terms used)

INTERVIEWS with LANGUAGE PRACTITIONER-ACTIVISTS

Both informants are very experienced language activists and language practitioners. I wished to include their CVs to underline the level of knowledge of language politics they bring to the interviews, but was told by the examiners to remove these documents from my thesis, hence a very short resume here.

Pedro Dausab
Mr Dausab is originally from Keetmanshoop in Namibia, and is a mother tongue speaker of Nama. He completed his tertiary education at UWC in Cape Town and then UNISA, and was a school teacher in Cape Town for 19 years, until his retirement. He has been involved as a professional language practitioner in over thirty short and long term projects from working on the Haacke-Eiseb dictionary, to translation, including that of the preamble of the South African constitution, cultural research, compiling language phrase books, membership on language committees, teaching Nama, and instructing Nama choirs, editing, preaching, and speaking at many public events in his capacity as an expert in the Nama language.

Bradley van Sitters
Bradley grew up in Cape Town and has been involved, over the last six years in more than 50 public events promoting the Khoekhoe identity and language, in the form of cultural research, presentations on endangered language, poetry, archiving, translation, making a documentary for television, has been presented with public awards for his language work, taken part in traditional leadership bodies, language colloquia, and presented workshops at schools, universities, heritage agencies, cultural NGO's, public libraries, churches, festivals, and media events. He has also been teaching Nama to others for much of this time. He learned Nama by studying with Pedro Dausab and then with Levi Namaseb at the University of Namibia.

Pedro Dausab interview

The timing of each sentence and exact morpheme by morpheme transcription was not used in this case, as it would be inelegantly overdone. This is not linguistic transcription, but opinion and feedback seeking. I am not analyzing for variables but for content and I want it to read smoothly, and be concise. I have thus condensed some sections, and use my own words, sometimes, in such cases.
The Dausab recording gave me some problems with audio perception (hearing) due to background sound in the restaurant, that I only discovered when I tried to transcribe. At the meeting Pedro was perfectly clear and audible and I never had a problem understanding him, and therefore my memory of the interview may be filling in some blanks in an interpretational fashion.
The interviewee's words are in standard type. The interviewer's own words in the interview are in italics, interviewer paraphrasing is in bold italics, and explanations, contextualization in underlined italics.

File 1
Section
Ending:

0-1.12 ***The funding was a big problem…he isn't an author of the dictionary****, in the strictest sense* ***he worked on editing of Haacke Eiseb dictionary…..*** Dominee Eiseb and Prof Haacke worked on it or a LONG time, 20 years

1.12-1.28 we were only three people but we were natives of the Nama language

1.51 Khoekhoe but we were Nama speakers, the lady has gone back to Namibia and Mr Damara is still in Riemvasmaak

2.20 I sent in a report to Pansalb but they didn't come back to me, everything was just stopped and I told them, but, we are not done with the whole thing it was

4.33 round say 60 to 70 odd percent we have done of the editing, but according to me they didn't understand quite well, what editing is all about, because its no use to do everything on a dictionary and 3 people and…. One is editing grammar, and one is…and its passed on to the next level and the next level…I've done the introduction, it was an excellent research as far as these two guys are concerned *(referring to dictionary authors, Haacke and Eiseb)* is Haacke still alive ?.. the word Khoekhoe was well covered, they included Damara, Hi//om and especially Nama

4.33 were included also. … the very old forms of using Nama that was covered, I must say that, it was brilliant in terms of all those things, but however, they didn't come out with, MT speaker will see some stuff, Haacke is not a Nama speaker, Eiseb is a Damara, is a Damara speaker, the other thing....why not include the different churches, the priests, I know quite a number of them, I'm sitting with my mummy's hymnal, and from my brother in law a hymnal, same as my mammies, but not spelling and all, not like dictionary, especially the spelling… they would use no two which are similar doesn't stand together, in Afrikaans two a's for slap in Nama one a and streepie bo to say it's a long pronunciation, that was missing.

7.39 ***Talks more about the spelling that is wrong, like the nasal they don't have any explanation why they are using it, and its inconsistently used, except –e- all the vowels will get it.***
Sometimes they use the wrong vowel, he gave them a whole list of mistakes and inconsistencies, geen verduideliking… taalkundige no examples of how to pronounce the word no use to learners of Nama

10.36 ***This was his main concern, no use to someone. He doesn't find it difficult to use, because he knows how the word must be spelt. Look at bible and hymnals… there you see how it must be spelt***
do you find it difficult to find things, the way it is organized ?

12.22 it's a difficult one, first one …wrong number, pages missing ? old lady went through
and the orthography ?
yes, one thing … in Namibia, they got the third dictionary/edition if you take it and compare to the dictionary it doesn't add up
did they change the orthography ?
lets say here, this word, *(big sections of inaudibility as he bends over a file)* this huka…you can't say, (inaudible) that is why I am… tara hu…(inaudible) its right at the beginning of the dictionary !
(*spelling mistakes on the first page in the flyleaf etc.)*
oh Golly, Ja
you see, its right at the beginning… the explanation about… (inaudible)
I found the order very confusing but you work with it as a professional, and you are used to it
JA
But I struggled like it took me hours to find everything…laugh
Yes, ha ha…we put out a small one… Dr Eiseb…Pastor Witbooi, those are the main men when it comes to Nama, I'm not talking about Damara… Dominee Eiseb was Damara, so it was OK, that side of the dictionary, but they needed to include all the other guys, that's one of the problems I had with it

16.40 dictionary
what …how much do you think the size of the vocabulary would increase if you included …um…like Namaqua and Nama…is there a lot of vocabulary that's missing or is it the form of the words ?
yes yes I'd say that because, in Afrikaans, right, for instance, I'm talking about die streek taal… because what I want to see is for instance if I read the bible in church

1730 that same

1740 the same two words, must be in the …. Also, because its no use now if you take the words they are using in this…..right and put it in writing, right, it's a HUGE vocabulary, …the dictionary for instance, you see what I'm getting at

1810 *its like it'll be old vocabulary, new vocabulary, new coined stuff and borrowings and all kinds of things*
ja ja

1821 for instance I was asked when they were busy with the training of the Richtersveld
oh yes

I was the one who was in ..the words to the people, now the old people are using… phrases for instance but the younger people they don't know those phrases

1902 because and its no only in … I was asked to come and help out, …Petrus ?? he is supposed to be a Boesman, but he doesn't…speak… he speaks Nama, and his Nama is of a very high class

1937 and you use words like .. in Cape Town if you send somebody…a kid, the old lady will say you must make very quick but she isn't using that word in Nama, she'll say …(inaudible)…now you're going I'll see your back, but as soon as you go I must see… exactly as you go, you're so quick now that kind of stuff for instance I was in.. with a

2029 world cup I was in Pretoria in Freedom Park and in one of those big buildings… that's got Nama "if you don't share the dream with the entire nation its not a dream" (translation in Nama) a dream is not a dream unless you share it with the entire nation"
for instance
Those kind of words are not used in normal daily conversation …the old people are still using language, the problem is they don't write…they just speak
last year in October, we were traveling with Pansalb……schools where Nama was one of the subjects but the school stopped….why ?

2225 *recently stopped ? there was a revival of teaching at schools in Namaqualand and then it went…*
yes….

2237 you know why… it stopped , you know why, the reason they are giving us is,.. but this lady… (inaudible)… she's back in Namibia, and I don't think she'll come back, because she was a very good teacher. In Steinkopf for instance

2302 she was stationed, Sanddrif, some places, also a lady now, she's also in Steinkopf, Dorothy Evans, its also been stopped, the reason, they were running this language as a project, but if you do something as a project, it will run until you .. while you have still funds

2356 but if you don't have any funds that project will stop, and I think that is what happened with this… time, and this.. there was something in the Times… make a copy of that thing… know what goes on with Pansalb
just quickly going to do something
ja

<u>File 2</u>

Just started a new file so that
Ok

0007 so I don't' know what to say about the issue .. any further because, but Pansalb especially in Kimberley, they know Mrs Moweni, she's the manager of the languages and so right

033 knows me and because I'm doing the people from…. (Inaudible ?)
Other things now.
Mm
For instance..this was my first booklet
I love this booklet, know it like the back of my hand
Such a good thing
That was the first,

You brought out a bigger one, this has got more vocab
Like isiXhosa in front, I'm telling you how to pronounce a word for instance in the Western Cape we've done a very good job, more than 500 of these books and this one also….. free of charge in libraries in the Western Cape so ja

2010 brought out next bookie, a better one with more detailed instructions on how to pronounce, 300 free copies

0207 but about the dictionary –that dictionary must still be
needs to be edited again.
Yes yes
Some People have asked me Why the non standard orthography – maybe, they find it alienating coz they are used to the standard
… yes yes

0244 I'm sitting also with the same thing
Maybe ah, maybe coz its written by a phonologist, he was very interested in that stuff
My elder brother died this year, he could speak Afrikaans, his Nama was very good, I'm so stupid, I didn't tape him for instance but my mum she's still there
My mother also is very good, she can speak German too.
I must do something about my mammie

0347 *I think just recording recording and you know going from there*
So you feel there is still more rich idiomatic use of language which should be in the dictionary that isn't there, a lot of idiom was left out
Yes yes

0417 *that idiom is very variable between areas, its not all the same across*
maybe you know that, in Namibia especially, its… that Damara. So whose language is it, that kind of thing, so they have the radio station Damara-Nama…because
no I didn't

0451 both of these groups are speaking the same language, but they don't know whose language it is, my mammie will tell you no its Nama, Dominee Eiseb will tell you its Damara

0509 *but in way that's an empty argument, they are slightly different varieties*
but I don't know …I want to do something about the language but I don't have the funds
what would you like to do
like for instance…like if we start with the dictionary, not a big one, like the one we are using in schools, because you can carry with you, that's one of the things (mentions another man)…..he stays in Wellington, has got a lot of things in Nama… we can get some more stuff and put it together, in Riemvasmaak where Damara (Willem) stays, it's a lot of people coming from Namibia staying there who are Nama speakers, they are young they can write and read why not go to those people and …..Steinkopf and those places, they don't' speak to the little ones, there is a lump? Of stuff one can do
I don't' know if you are at all interested in

0721 *in the problems of an L2 adult learner of Nama you come across this problem of lack of materials, you need to read small books, some slightly more complex stuff, have a lot of sentences to look at, and its still very much*

a spoken language, and I'd like to join in the fight to keep that language alive, in 500 years time, how many of the Khoesan languages will still exist
(inaudible)
Elizabeth, I was waiting to … sitting there two old women……sitting in a red chair, I said.. they are coming down stairs, they were speaking a language like Nama and I could follow them, so I answer in Nama, an *oooold* woman, you know what was that language… Korana

0909 Korana it was three four years back and those ladies, so I don't know,
there are people working on Korana but it also depends on how much money they have
that's right

0939 erm was it Tuesday last week something on the news a Khoedam have got now books, did you see now on TV
with the help of M B no doubt
you must get people to work with the people
its on the TV but its nothing going back to the people, I started something here in Cape Town but it was free venue people must come from different places its no use if I have one guy, he's young he's excited, I can't go there every Saturday, his pronunciation is not all correct but he's doing his best without Pansalb
someone said there is money its just getting it out of them I'm wondering if the first thing to raise money ….. to have someone to make applications, just for funding all the time ha ha laugh coz without money a thing cannot go, its very interesting that you found the dictionary a rich source for Damara but it needs more idiomatic research

1233 *rather than isolated words and it hasn't recorded the full dialectal diversity of the lexicon, very interesting*
ja ja
because to me its such an impressive vocabulary, I've been reading about English how it used to be before it borrowed all the words from French and Latin and it was a very poor vocabulary, Nama's vocabulary is scintillating with subtle psychological terms it would be a pity to lose that
I've taken one of my friends he has never been in Namibia, but I took him and he was amazed, because he didn't believe the whole nation is speaking one language like that, because he didn't believe,
So does everyone in Namibia speak Nama ?
Not everyone…if you are staying in a hostel in the schools, the kids in grade 5 can speak 6 languages, Nama one of them, but Afrikaans is the one everyone can speak.. but Nama's and Damaras and Basters are sitting there they speak Afrikaans
Is it a different kind of Afrikaans ?
Yes with Nama words

1514 in English words in the usual conversation I still hear it .. my mum my mother in law they were watching TV, my mum is Afrikaans, my mum will say 'oh, is hy die speurder' and the auntie will say
'<u>ng ng,</u> hys nie die speurder nie, hy's die detective' (<u>*Nama negative*</u>)
<u>laughs all round</u>
but even English speaking South Africans use Nama words, I only found out when I knew a few Nama words, like they say Aitse ! what is that about ?
I've mentioned that… I'm giving you the clicks here

This is your materials I've collected.
If you say ng ng its Nama !
Many people er I think the Aitse is supposed to be something like 'yesterday!'
Ha *ha*
1652 *its changed a bit with time, its dropped the*
(inaudible)
my son is now in Spain, like we were saying, hy praat Spaans,
is he studying there ?
no he's studying in Australia
is he doing languages ?
yes
ah wonderful
(inaudible)
a talk jaa….
1739
we were doing these classes…
he shows me the books on Nama he's worked on in his portfolio….
His daughter is studying music at Durban University
…..She's a language activist, what is she doing in terms of activism ?
Well, she's going to people, recording (inaudible) and she's from German university …With an old lady, Lena (oh he means Alena Witzlack ?)
There is clearly a misunderstanding we are talking about two different people
Studying Nama before the white people came to Africa and I've done this with Cape Town also…..
this is South Africa I've done this with her
and this Lizette Verwoed is recording all over the place.. does she have a PhD ?
ja I think so…
ja you see, that's what gets that get you the money and everytime I want to do a project they say wait until you've finished your PhD and I go like.. I'm 54 ha haha
so this is the material from….(about first and second book) the same just more stuff…oh I haven't seen all this material !!
do you have this on a website
the bookie is on a website
are you interested in website development with materials
yes, yes I am
and how would you see the financial backup happening more, it's a difficult issue, I don't think it will make a profit as a concern ?
even if you go (inaudible) I've done for voices of Africa program ran 17 weeks, but they don't have money, so they put it on a timeslot people don't watch at Saturday morning at six o'clock.. a waste of time.. I have lots of stuff… but important was UCT, it was well,
well ok, do you want to finish, OK (picking up non verbal cue ?)
new recording quickly
this is pedro dausab's comments on compounding'
lets say a new word which is not in the language, they will use that new word, and for instance if they add an –s at the end it means it's a female that's why …….audos the audos is a german word (auto= car) but they

didn't have that originally, but they didn't change the word, they only changed the end, and its when it's a small car its audos, and when it's a big car or lorry it's a audop
but when its more than one or three or for then they but an –n at the end, audon, so you see, s, ……..
and audon..is it lots of small cars or lots of big cars or.. a big
its just vehicles, like you asking me… if we say khois.
But that particular ending it changes the meaning completely, its not just the gender thing ???
NO
Very often….
You are making a new word
…coz when you sit in a church, especially in Namibia, and you are English you are Afrikaans and I'm Nama, each will sing in his own language coz different people will be sitting in the church and if the preacher is not a Nama speaker he will have a problem… coz I also didn't think about that, some of the guys are thinking on their feet, I didn't know the preacher was preaching…he's saying about diepe grond.. he switches…

I was asked to talk in the city …….Nama, they don't have the concept of condom, how do you say it in Nama ..I asked what it is and one guy says ok, "it's a murderer of the nation"
BIG LAUGHS ALL ROUND
2742 *that is another view, a very different view*
and the word spreads like that word your mother uses has spread and its not an English or an Afrikaans or a German derivation, its an original
I think I gave you the list with the 'ai' compounds, now when you see the 'ai' on the front of a word, does it feel to you like a compound or like a prefix in English
JA
Something on its own…do you feel that is kind of is sort of become a little bit empty unless its attached to something or is it a compound of two words
Hm hm like 'I' (***I'm learning I pronounced ai wrong here trying to correct it)***
Ai
It will stand on its own, but ai – you are telling the people to go, but in Nama it's a verb…. you must do something i-neba 'gaan hier verby' the other word with the 'I'
Is – is your features, now this s - ai that is not a word it can't stand on its own but with the ai it's a word. *[I wish I could hear better its restaurant noise]* for instance seek as I be
Why can Afrikaans ***gesondheid = gesond + heid*** .. its not a word on its own,
So you wouldn't call it a compound ?
But I you go with 'si' it's a word again, as I
Oh.
Oh
Its difficult when it comes to Nama
Very small words or what
Small

But its difficult
Very very subtle language
So do you think
I'm trying to find out where I went wrong, so I pick a more affixed word like morphology so I call it affixated with an affix but cell phone is a compound and it can't be split because you can't say I celled phone him. You have to say I cell phoned…well you can't say that even
It doesn't take on anything, thank you very much
Joke
I'm sorry to have kept you so long.
I like this place because its very private
You chose very well
If you can think of any way for me to be involved let me know
I don't have a lot of money and I don't' have a lot of social skills so I don't' know how good a fundraiser I'll be…..
But I'm working on these ideas all the time
I was so glad when I got to Pansalb and I found that award…
CEO,
something about not handing out the money.. I found out the budget for Khoekhoe is so miniscule, a couple of thousands….. astonishing…..but that about 3 other South African languages have far more developed budgets for dictionary creation etc
it must be awful to share your funding with ten eleven languages who all feel they are important, ***he asks me to turn off the recorder***
Oh sorry
THE END

Bradley van Sitters interview

A speaker, Robin, enters conversation near the end, his words in Adobe Caslon *type)*

0000 ***Pedro was the one who showed him the way*** and he said its very difficult to direct people to the dictionary when its so full of errors
Everyone else is talking about the mistakes too
The academic side overrode the whole community participation thing.
0257 why was it KKG English rather than KKG Afrikaans
you know in Namibia, English is the least spoken language
Namagowab is the 2nd Ovambo the most
Afrikaans in context of Namibia used inter-tribally (sic) so Hereros and Ovambos speak Afrikaans to each other
0430 Afrikaans would have been more user friendly
I spoke to Niklaas Fredericks and Namaseb they felt the academics wanted to prescribe to community aspects of the language currently …a debate whether the experts are the academics or the community ….
different starting points from a community and academic perspective, problem in this line of work, academics feel they are learned and have the upper hand and no no we can prove it, its more like the empirical approach that Niklaas said, and Namaseb
0710 Particular issues were when the academics called it KKG some speakers wanted Namagowab, but Levi explained they don't teach the dialect you choose the standardized, it was the intent in the dictionary by the academics, it made a lot of sense
Is he saying it was the dictionary was standardized… ?
They do keep reference to Nama and Damara speakers, provided for all, they do give reference when there are differences…..
0836 Also the Taalraad came up with new words, standardizing between the dialects, its not using the dialects, it makes sense in a linguistic way, with some of the words. The academics aren't speakers, the speakers should be looked at because of their contact with the language…
0934 And I'm also a lot involved with language and I'm still learning, I'm just going out of the beginners phase, they said the academic must really attempt to master the language then their approach would be more insightful
I think that is a really strong point
Niklaas was telling me, community engagement with academics, the community says lets speak in KKG and the academics said we can't fully understand, how can we discuss the language via another language ?
Haacke is good at the language, he's definitely at an intermediate phase…..
Although community members say he couldn't understand all of what we said, so that was for them a problem area
You know there was a writer Theophilus Hahn, he wrote a book called *Supreme Being of the Khoekhoe*, I actually have it on pdf, I was using it as a reference, and I love that book, Caroline, he actually showed a lot of insight ….published around 1881 , lived… philologist…. for seven years among the Nama people and 2 years among San people, and he said after 7 years of living he could speak confidently, then he started writing the

language, he was a German guy, like Haacke, I think he's almost following in the footsteps,
Like Brenzinger also
ja, you said you met him,
Haacke yes, when I was at the university of Namibia, he was the department head, I think for African languages, you know so I know all, I think it was just languages he was head of the department, coz you know academically he's huge
he's good
Ja he's got a lot of backing and
I also sat in his classes and he knows his stuff, like he's a real serious linguist and he knows, his knowledge is not only on KKG its vast the time studying .. he's extremely knowledgeable. Haacke himself I went there 2011 I spoke to him and he was quite impressed and moved that someone from the Cape came to study the language and study there, you know Memory Biwa, she actually asked, she made
a point why haven't people like Haacke brought it across more that the language is not only from Namibia, ….Northern Cape, the remote areas of the Northern Cape
on the borders of Namibia and Botswana you find speakers so any study in the language should see this, you know the borders are colonial boundaries, and the language existed long before the borders and the dialects that was lost here, you know me and Menan du Plessis, Levi Namaseb, Charles and Petrus Human, we were involved with the Korana
yes
so that was also quite interesting, that dialect of the Kora, linked with Nama
and the Kora and the Nama
and now that you're quite fluent in Nama when you read Kora, can you understand if you're reading, have you ever looked at the bible or anything like that ?
Actually I haven't seen the Kora, but from my experiences there with Ouma Jakoba saying /xgom
or //hom (clay) or /khom (take pity on), (said very gutturally by Bradley as an illustration of the Namaqua dialect) but there appears to be dialectal difference), I *may have heard Bradley wrong,*
the Korana way of saying it, so it has a glottal sound
ja
connected with the words its more kxx (velar fricative sound)
mm
its got a lot of that
mmm I think you call it velar fricative…like kxxxx!
Ja, so those are the certain things, because it was their neighbours were San the bushmen influenced them that way, for the Nama's there were like other neighbours that influenced them, their language over there
I mean like one of things also that my lecturer at the university of Namibia, Dr Levi Namaseb, he said, one of the great things about the dictionary, lets speak about good things about it, besides for writing the language and how to write it phonetically also, the pronunciation part of it, through the use of the accent markers…

So he actually finds them accurate for.. coz he is also a Damara speaker ?
Ja he's Nama Damara, coz he, some parts of his family are Nama and some parts are Damara
1751 *so he said it was a help with the pronunciation ?*
he said er…it's a good attempt to make with that accent, two or three pieces
as system, tis a very coherent system
ja and if you and also when you write the language you don't put the accents on the vowels, and you know you should, actually, the language
1826 will look a little bit different to you know using the normal alphabet letters
aah.. do you think that Haacke's orthography alienates people because they are used to the standard orthography which is so different ?
ja the new one,
oh, I'm talking about the new dictionary, I don't know the old one, it has every single vowel with these like accents
they are really helpful for me
OK !
Because I am not constantly in contact with the speakers, so
1911 so to pronounce a word right without having the speaker with me, they are indicators, are showing you, go low, go high, go high and low, go low and high, so they are indicating the pitch, for me personally it helps, I know Pedro Dausab didn't gell with that, he was like ah well..he wasn't to sure about that, but for me being a non first language speaker, it did give me insight.. now the class I'm teaching here, they didn't grow up with the language, as such I'm privileged, and having the name xxx the traveler
ah the traveling man, chuckle
ja that's the name they also gave me in Namibia
wow that's such an honour
and they said your spirit is one that you always have to move, and through that lesson, I could travel, and I had to come back and bring things to the Cape like the name.. so that is some of the things I could say around the dictionary and you know I don't want to like belittle anyone's attempt you know like Haacke did a lot, I so
they worked for twenty years
twenty years on the stuff and to dedicate himself to the cause of this language, its valid, its great
I would however like to see more community participation, you know that whole distance between academics and communities, it seems so far
Ja
Away, and even in other disciplines and areas of study, I'm always thinking how can we bridge these gaps ? how can we bring the community into a system where they are also acknowledged, you know to make a comparative analysis, say a kruiedokter, now the people writing a thesis, they're coming to study the knowledge of the kgoma-aub ? ? they write a paper, maybe for the master's degree, they get a qualification, but they research the person with the knowledge, they are not the knowledge holders themselves, but after studying or after interviewing the knowledge holders, they get the acclaimed academics
Ja that is a universal problem

Ja that is a problem because
now the person, the knowledge holder, they should be the doctor, coz they are the knowledge, but now coz this person did the research on that person, the academics are walking away with the papers, give him some acknowledgment, so I spoke to there is a kruie dokter, oom jantjie Koe, and he feels very strongly, he lives in Andriesville, on the border of Botswana and South Africa, and he says you know how many doctors and professors came and interviewed him, and they become double doctorates whatever, because of the knowledge he shared with them, he said if I am teaching to doctors and professors, what does it make me
ja
I don't even have any qualifications but these people are walking away with the merit
What do you think would be a solution to that ?
There has to be a way of, like the people that are being interviewed, the knowledge holders, must be acknowledged, and the way its used, if you look around its
Ja and that they are experts, in their own right, they stand out
Ja they must be given an honorary professorship or doctor-ship, they didn't have to write a thesis or write a book, but because they are the knowledge holders, and then the person doing the interview must make sure that the people he interviewed get honorary doctorship, I'm not exactly sure but, honorary acknowledged for the knowledge that they have, coz
Normally they would just think that the credit system is enough that they say
At the end
ja
that doesn't mean anything, because the people walk away, after they come to the community they leave and its like they actually say, these people come and harvest knowledge, take the knowledge to the university, the people in the community never know what happened with it
oh alright !!!
they never see this person again maybe also
now me and Memory, we went to Koeboes, and the community said to us, we will speak to you on one condition, and the condition is that you will come here again.
If you can't promise us that, we won't talk to you. we'll be friendly and sit down and talk about other things, but the thing you want to talk about because its going to help you, memory was doing research for her thesis, for her M, its fine, so they said, promise us that
So you think that going back into the community and sharing your knowledge with the community
would complete a cycle, they would feel better about it
and then also the people that were interviewed in the process, get a certificate or something honorary, you are acknowledged, so that
yes
people don't feel left out of the process because now its almost like a form of exploitation, exploiting these people, you are just like tapping into their knowledge,

2537 leaving them as they were before, nothing happened for them, what happened in the process, what did they get, but the person walking away with the knowledge, is getting the academic credits for it, and all of that, so man like those are, I mean I'm also working on those things and its also battling, like how to find a solution, trying to see how do we create other systems, other ways of seeing that knowledge, how do we integrate that, because knowledge is not, universities are not the only spaces where knowledge is stored
totally
its institutionalized knowledge systems, but the communities are the backbone of these universities, because it comes from A community, it comes from a people,
education ja it doesn't really get established *(3rd person enters the conversation)*
I was thinking along these lines is that we need to go to places like Namaqualand and raise linguists in Namaqualand,
2650 *I want to teach the children to record, and teach them to annotate, and get bursaries for them so that there is a very high number of linguists who actually are mother tongue speakers, coz there is so much distortion when we are coming from outside*
Its true
They need the linguists to be part of the community that's what they were in England, it was English people studying English, German people studying German (not really always true but in the case of Namagowab it is overwhelming untrue, except for Dr's Namaseb and Fredericks)
So now in our case, and also
2729 no I've got a lot of respect, like with Hahn, if Hahn never wrote that book published in 1881, he wrote that book he wrote in the preface, I'm sitting in Stellenbosch, after nine years, Khoekhoe for 7 years and San people for 2 years and now only after nine years I'm writing this
didn't he marry a Khoekhoe woman
I'm not sure but he, he
Was he in the Eastern Cape or..
He was in the north, in the northern
Ah
And then he actually
2804 and in the writing he says, in the mornings, a young girl brought him milk fresh milk, and he couldn't wait in the mornings
and he was so excited and then he did fall in love
haha ha that's a man for you
its not only… its like a taste. He fell in love with taste, he fell in love with the eyesight, he fell in love with the culture, so if you find a person embodying the culture through a woman, and then
and then like I don't' see anything wrong with it and to me its actually right, and Mr Dausab, his words to me was he said "Bradley", he went to study at university na , I told you, did you forget what I told you, you should just get yourself a Nama woman ! a Nama wife and then every day of your life, you'll be with a Nama speaker, with a first language speaker, that's your dictionary, that's your encyclopedia, that's your knowledge holder,

ja it's the best way
ja it's the best way, ja and er…
Adressed to me: is that your intention ?
to get married right ? ha ha
I was going to ask Bradley when he's going to marry a Nama woman ?
Ja ja I'm actually now
Its about time
I'm actually single now
You're overdue as well *(addressed to me)*
Ha ha ha ..I'm very overdue…
Absolutely
Ah I'm single at the moment, I'm still looking for the Nama woman to marry, ja ja and then broader, let me not put a perimeter on it, anyone with a love for this I'd marry, because I tried other cultures and even my own community people and for them, this is like, they don't see a future in it
3020 but for me you see, there has to be a future in it, there is a future, and this is what we are doing, is to create that, and also, here we want to bring this back here, this is the place of worst cultural devastation, you know, because of the colonial bomb that landed here in 1652 with the settlement and it hasn't changed much
you know and for me in that context, this is for me the place where the healing must sprout, and language, Caroline, for me this language is part of my healing process, to come, it's a holistic approach, we can't send people to the healing centres and da da da da ….that would be great, but we're speaking about mass level, so the language becomes the medicine for the people
such a medicine, its an extremely strong medicine
so,
its so complex
and then also class boundaries, you know I work with jungle theatres, with Vincent and you know he's a white guy and he actually over the last few years became a lot of interest in KHoe and Bushman theatre performance and so
3137 he was always trying online to find words, what does this translated and what is that and then I said, I'll share with you, on the basis of your interest coz you are asking me out of sincerity, and he wants to perform it onstage and I say its fine with me and also to say it right, you know like English is spoken not by English people from England, we're not even close to England but we're speaking English now, my approach to the language was to internationalize the language, so we have a Japanese girl, we've had a girl from America, a guy from Belgium, involved with this and for me it was like yes, by all means yes,
3237 come, learn more, go back and start a language school, fine, lets internationalize the language, so in the same way, culture as strong as English you see it on the TV you see it on the radio, we have to connect that and say listen lets empower ourselves, it can also empower, like all citizens of the world must look and see this is the oldest genetic stock these are our forefathers, and these are the oldest languages in the world,

spoken by our ancestors, so lets restore one of the oldest languages in the world

3332 so all the people in Canada, the indigenous people, we say come, come and learn, there is something about the language about humanity, people have forgotten what it is to be human

3354 Khoekhoe ‘n mens se mens, a people’s person so

Its very psychologically insightful, full of expressions that express subtle things that you don’t get in English or Afrikaans

In other languages ?

Three degrees of attitude all in one word

There we go

Its incredible

so

hmm

are you going to work for KSAAG

you’re inviting me now

No I know Caroline, she was in our initial group and I have her contacts and you know we have to form a support structure, like if we can have an academic support structure now with you, and now we have Dr Memory Biwa she’s also from Namibia and living now in the Cape, she’s also there for us she’s actually part of KSAAG

oh !

she’s one of our founding members, so she is also with us, she is there. Robin to help us there and she’s a first language speaker of the language so we actually want to identify people, and then your role will also be there, and then people like Haacke, Namaseb, Niklaas Fredericks, all those people, we want them, you know. Like they told me in Namibia, you don’t have to reinvent the wheel, we just have to connect the dots, us here and them there so, and often if I work with Xhosa people, often they are more interested than our own brown community, because of the clicks, it throws them off, and they are like ‘what’ there is another click language, they don’t even know about it, when I speak a little bit then they say now I wanna learn this, because somehow our language and theirs is connected so the term that we really like is the language family.

Because Nama is connected to Naron, so if a Nama speaker speaks to a Naron bushman its about the same language, then there is the //kung from Platfontein, the Khoedam, very different again,

3647 *and Shua*

Tsua ? there is also Tsua, and now there was a book released Tsu tsuan zi, the sounds and the writing, is familiar, it sounds like Nama, but the meaning differs, I know for one of the languags they use /amsa for the sun, /amsa means hot, in Nama, sores is sun, but in the bushman language they say /amsa, its an attribute of the sun,

it’s a typical relationship that you’ll find as words change in time like that it will no longer be used as a noun or something like that

exactly, so it becomes like more descriptive

so the noun is like describing you know, its like an adjective, becomes and adjective

the Khoekhoe and Boesman, language family and also how its, distant cousins, Xhosa, different culture too, even a bit of Zulu, and of course obviously Afrikaans, are distant cousins of the language,
yes
and then now the bushman languages is the closest, I use the word Boesman deliberately, I know the word San is more politically correct in academia but if I speak to people in the north like Andriesville and Petrus Vaalbooi, they don't like the word San,
coz its very derogatory for them, vagabond, rondloper, they are like ugh, don't call us San,
but why Bushman ?
well I know academics feel its like… they say you can't call the people Bushman, but that is like…the word first used by the colonists
but what about the Batwa
that's an Nguni word for them but they .. themselves they say ja, we know the bush, we know which bush to use when you're sick, when you have a headache drink this one, when your stomach hurts, drink that one, we know the bush, call us bush people, and sometimes they say even, call us wild bushmen
its become derogatory ja
its become, only in academic spheres, but speak
to the people and ask them do you want me to call you San or Bushmen, there are some who'll say san in Botswana, but the people I was in contact with in the Kalahari in south Africa they said, no don't call us San, it's like hy vloek ons uit,
its like if you call a Xhosa the 'K' word, and they say call us Bushmen we know the bush, and Abatwa is like what the Tswana call the bushmen close to them, er..
(some people come that have been waiting, I didn't know about)
thankyou very very much
you've a lot to say, you've really emersed yourself in this
thank you Caroline
I do it every day
You're growing so much since I first met you
Ja its true, I've grown
I used to do it once twice a week and now I do it every day, I have my songs, I have my prayers
see my brother, when I pray, I pray in the language
come now
I have to go now Caroline
thank you guys for waiting, I'm very sorry
and thankyou
the rest of file is blank, must have forgotten to turn off recorder

Data analysis from Haacke Eiseb and Oxford dictionary on Namagowab and English affixes

12.01 Affixation and Opacity

The benchmarks of opacity are arbitrary.

ENGLISH

Transparent roots	22	Transparent affixes	21
Both transparent	17	Only one transparent	7
Neither transparent	26	Total words	50
Borrowed roots	43	Borrowed affixes	36
Total words	65		

(see digital appendix, Excel files, opacity estimates, English affix opacity, in the CD)

However, using relatively arbitrary measures, like judgment, English showed that in 50 words, just less than half were transparent. Furthermore there is a tendency for both root and affix to move towards opacity together. Borrowing plays a part in the greater majority of English word formations.

12.02 Productivity of individual affixes.

Affixation was not the focus of the research, but couldn't be excluded. Individual affixes were counted in a sample of 82 Nama words. There were 13 different suffixes with the following distribution:

-b	-s	-i	-sen	-xa	-si	-ba	-ni	-sa	-ri	-gu	-be	-re
20	19	9	7	6	5	4	2	2	2	2	1	1

Meaning of Nama affixes

-b nominalizing gender ending, masculine

-s nominalizing gender ending, feminine

-i possible third person singular neutral, used for non count nouns, and some of those whose roots end in –m.

-sen reflexive

-xa adjective deriving suffix, or ventive verbal suffix

-si adjective deriving suffix, or demonstrative adverb suffix, or object suffix

-ba masc 3rd p. sing. Object suffix, or applicative suffix.

-ni inflectional

-sa inflectional or adjective deriving

-ri inflecitonal

-gu reflexive

-be adverb deriving suffix, manner, Hagmann 1977: 166 (spelled –pe)

-re adjective and verb deriving suffix

(see digital Appendix, Excel files, Affixes, Nama Affixes)

Notably, their meanings can be listed (Hagmann 1977: 166).

In English, out of 88 words there were 42 different affixes with four prefixes. The frequency of the prefixes is due to the words being taken from ap- and be- in the dictionary.

Prefixes	a-	ap-	apo-	be-
	3	1	22	19

Suffixes

-al	-ic	-ize	-our	-ian	-ary	-ish	-pse	-cope	-etical	-osis	-iori
3	2	2	2	1	1	1	1	1	1	1	1
-gee	-aris	-on	-ist	-ogue	-logy	-pthegm	-exy	-esis	–asy	-stle	-stil
1	1	1	1	1	1	1	1	1	1	1	1
-um	–uine	–age	-ism	-oth	-en	-ing	-ed	-er	-ite	-ate	
1	1	1	1	1	1	1	1	1	1	1	

(see digital Appendix, Excel files, Affixes, English Affixes)

English shows a very flat distribution of affix use, whereas in Nama there is clear skewing of distribution. The English prefixes are mainly noun to noun derivations, but the historically productive suffix be- appears to derive verbs.

ENGLISH DERIVATION TO :

NOUN	PERSON	ADJECTIVE	VERB	ADVERB
23	3	11	4	1

(see digital Appendix, Excel files, Affixes, English Affixes, on CD)

FOLLOWING PAGES:

Testing for true compounds

Feedback on a short wordlist of possible compounds,

from Pedro Dausab

TESTING FOR TRUE COMPOUNDS

1.Dani!ās = Honey residence; honeytown. - - Compound

Dani = Honey

!ās= settlement,residential site; town; residence.

Dan**in**!ās = plural

Danis!ās =female

Danib!ās = male

2.ǂNAO-ās = Stain hole?, hole spot? - Compound

ǂnao = birthmark; stain, spot, smudge, blotch(of colour)

Ās = drnk; beverage (female)

Āb = drink;beverage(male)

Ān = drink; beverage(plural)

*NB (True compound?)

3.|HAMISEN = Dress warmly; sit decently - Compound

|HAMI = dress (s.o)warmly; cver (s.o) additional blanket

SEN = fancy; like; be fond of; be in love

4.|HAMI ǂGĀ = pack(s) into (s) - Compound

|HAMI = gather; collect (belongings) for journey; round up (cattle/people)

ǂGĀ = insert; put in (to) plant cultivate

5.|HANNE!GÂ(BA) =protect (horse) saddle blanket - Compound

|HANNE = lay (branches) under (ment/carcass)

!GÂ = listen (to) pay heed/attention (to)

!GÂBA = observe at meeting

6.|HANNE!NÂ = stuff; pad (esp. on inside) underlay – Compound

|HANNE = lay (branches) under

!NÂ= postp. In, among; into; shine; give/emit light

7.|HANNE!NÂXŪN = padding; material for stuffing - Compound

|HANNE = lay (branches) under (meat/carcass)

!NÂ = shine; give/emit light postp. In, among; into call for help/reinforcement

XŪN = things; objects; possessions (incl. live stock)

NB. :

8.|HANA!NÂ = rot; putrefy - Compound

!NÂ = see no. 7 here above

|HANA = v.t. = Ū|HANA = take away (goods); (pers.) take by force.

9.HANA!NÂSA = rotten; purefied; gone off. = Compound

|HANA = linger; delay/prolong departure; dawdle/dally (on way)

!NÂSA = light; illuminate; moonlight

10.|HANA –AOB/S = Person (man) who takes away by force? - Compound

AOB =Man; husband

11. |HANAXASIB = tardiness; inclination to linger etc. - Compound

|HANAXA = tardy; inclined to linger

|HANA see the explanation above

XA = postp. From, of; by; about

SI(B) = sis!, yuck

12. |HANA|HANASEN = v.i. (internationally) delay/prolong departure - Compound

|HANA|HANA = v.t. deprive o.s. of(s.th.). ûiba (ra) take o.'s own life; deprive o.s. of livelihood.

SEN = see above

13. |HANA!NĀ endure/suffer pangs of hunger - Compound

|HANA = linger delay departure; dawdle, dally

!NĀ = exceed/surpass (in)

14. ǁAN|HAO = live together (in same community/town - Compound

    ǁAN = live; stay; dwell; reside

    |HAO = meet; assemble; converge.

15. |HAO AIS = Venue; rendezvous; meeting place - Compound

    |HAO = meet, assemble, congregate, unite, converge

    AIS = face, front, surface, lid, cap

16. |HAO HÂB/S = congregation, parish - Compound

    |HAO (see above)

    HÂB = (HÂ) = stay, remain, stay on

17. |HAO HÂSI = relating / pertaining to the congregation / parish - Compound

    |HAO = (see above)

    HÂSI = orphan lamb

18. |HAOHÂSIXŪN = relating / pertaining to parish things, the congregation things - Compound

    |HAOHASI = see above

    XûN = things

19. |HAMINI = empty honeycomb old rush – mat- Compound

    |HAM = take food along on journey

    MI (?) =

20. |HAMĀS = Compound

    MĀ(S) = give, present (to); turn over; supply; offer

21. |HAMAB = strap muscle (of back) – Not a compound

22. |HAMAI = operate on (s.o) for cataract - Compound

    |HAM = take (food) along on journey

    AI = stammer; stutter; mispronounce habitually e.g. omit clicks

23. |HAMI = gather /collect (belongings) for journey; round up (cattle / people) – Not a compound

24. |HANNI = (the) Lord’s table, communion table; meal, prepared food – Not a compound

NI = o.m. 3rd person plural = them

NI (NÎ) future / compellative tense participle. ǁKharake du ge NÎ = You will/must be Punished

1. |HANAB/S = smell of urine ǂkhari-oms ge |hanaba ra ham the toilet smells of urine – Not a compound

26. |HANAXA = tardy; inclined to linger etc. - Compound

|HANA = linger, delay/prolong departure; dawdle/dally (on way)

XA = postpone from, of, by, about

27. |HANASEN = deprive o.s. of (s.th), ûiba (ra) – take o's own life deprive o.s. of livelihood - Compound

|HANA (see above)

SEN = fancy, like, be fond of, be in love with

12 Namagowab

12.1 Summarized Grammar outline for appendix

I have not had time to cover all the grammar sources. The authors I did use are Tindall, Rust, Olpp, Engelbrecht, Killian, du Plessis, Haacke and Hagmann. According to Hagmann, who wrote perhaps the most comprehensive and empirically based grammar to date, most of these sources are early, and of only historical significance, as Nama grammar was not properly understood. Haacke and du Plessis are post Hagmann.

My sources for Nama grammar are thus not exhaustive, although there is not much writing on the subject in European Languages. I would like to have explored Namibian school grammars, but the ones I traced were written in Namagowab, and I will have to study them later. In these sources, Nama grammar is directed at other linguists, academics or missionary-linguists and colonial officials, instead of school children, or native speakers seeking explanations of grammar. Thus some are directed at theoreticians of language, and some essentialize aspects of the language and its speakers. It was very difficult to get a simple, easily comprehensible but un-essentialized overview suitable for a 'grammar outline', until I stumbled on Hagmann, after working through all the others. The grammars range from a few pages as prelude to a lexicon, to PhD theses. I may have excessively simplified some of them and need more research on morphology. Concatenation into words is so great a part of the Nama language that many 'grammars' do not get beyond the 'word' formation processes.

Tindall 1857

In the rev. Henry Tindall's (1857) *A grammar of the Namaqua Hottentot Language,* the focus (what linguists then meant by grammar ?) is more morphological, discussing lexical categories, derivation and conjugation, there is no discussion as such, of sentence order or syntax.

Olpp 1977

In Olpp's (1977) *Nama – Grammatika*, syntax isn't really discussed except very briefly and not exhaustively under inversion of word order, question formation, hortative and negative forms, and perhaps indirectly via examples given to illustrate the passive, imperative, causative, reflexive, reciprocal forms, as alternatives to expression done via inflection. An interesting finding of his is a morphological hierarchy or order for the verbal suffixes, and there is some expansion on compounding.

Engelbrecht 1931

Engelbrecht's grammatical and linguistic description is preceded by a description of the Korana people, which is extremely essentializing and ahistorical. He claims interestingly that tenses are similar to those in Bantu languages. His informants claim that Nama and Korana tenses are similar in many respects too. This appears to be another phonological and morphological study which shies away from syntax.

Killian 2009

We are dealing in his grammar summary with secondhand information rather than observation, and it is thus placed in the appendix of his thesis. The grammar description is taken from Maingard's Korana folktales (Killian 2009: 107). In Khoemana (his coined term for South African Khoekhoe varieties) the grammar description is very brief. Where it lacks in completeness it makes up in comprehensibility. Syntax is SOV but with emphasis and certain verbal modifications, being able to change sentence constituent order in complex ways, such as encliticizing a subject personal pronoun to the object, other possibilities are: VS, or 'inverted' sentence types (both of which you will see again in the section on Haacke's grammar, and which Hagmann explains and so doing de-emphasizes). Killian's sources claim these inversions are prevalent in rapid speech, (Hagmann that inversion is an avoidance of starting a sentence with particles) and that word order can vary in commands, wishes, in narratives in which subjects are often omitted, but understood contextually (Certainly, the syntax in Pedro Dausab's conversation booklet 'Teach yourself Nama' that contains many questions, instruction etc. is very divergent). According to Killian, SVO occurs with certain verbal forms, and the Subject pronoun being suffixed to the object occurs with certain verbal forms, such as the intransitive Verb with place-circumstances preceding (Killian 2009: 107). Killian is well post Hagmann, yet he consulted only Maingard (who Hagmann commends as the first 'accurate' account) presumably as his focus was South African varieties.

du Plessis 2009

According to Du Plessis in her cross linguistic study of South African varieties of Khoesan Languages (SAK Languages) the Khoekhoe group favors head-final patterns (Güldemann 1999). The preferred word order in the main clause is verb final [SOV]. In the prepositional phrase the locative morpheme appears at the end of the constituent; and in the noun phrase the noun (usually) follows its specifiers (Du Plessis 2009: 144). The structure of the Namagowab sentence as set out by Hagmann (1977:61-62) is cited by Du Plessis as follows:
NP (*ke*) X (Adv) (**NP**) (**NP** (+ Appositional post particle.)) [Aux] [**V**+] ([Aux])

The structure of the VP is :

[Aux] [V (+)] ([Aux])

[Tense (Impf.)][**V-ROOT**(+Der.)(+Ext.)](+Obj. suff.)(+Neg.) ([Perf.(+Cop. *i*)])

(Du Plessis 2009: 144-145)

As in Hagmann, brackets signify optional elements. Otherwise the notation is very divergent from Hagmann's original. As we will see in Haacke this is not the only structure but the 'default', and the VP shows constituent order [Aux][V(+)] in the 'normal' verb (Killian) added to the [V(+)] ([Aux]) order of the 'inverted' verb (Killian). In any case of use only part of these strings would be selected. As Du Plessis explains, negation is expressed by the post-verbal morpheme *tama* (underlined in the string), or in Nama *tite* especially with Irrealis. The first auxiliary slot expresses tense and optionally, aspect. The second auxiliary slot expresses the perfect aspect, especially of stative verbs.

The tense has 'present' as an unmarked default. The past is split into remote past *ge,*

and recent past *go*. The auxiliary may include a 'future/compellative tense particle' *nÄ*, and a 'potential (semelfactive) tense marker' *ka* (also spelled *ga*) (Haacke and Eiseb (2002: 99) cited in Du Plessis) which may be alternatively construed as modal. Progressive aspect is expressed by *ta* (*~ra* after a vowel), attaching to *ge go* or *ga* in the first auxiliary slot, but appearing as an independent particle in the unmarked present, as well as the future expressed by *nÄ*. The vowels of the progressive particle and tense morpheme may harmonize, giving *gere* or *goro* (Du Plessis 2009: 145).

Rust 1965

Once again there is confirmation of the basic Nama sentence as SOV. He explains the syntactic diversity as depending on what kind of answer is expected, or the emphasized information in a statement (Rust 1965: 100) and offers a wide range of stylistic choices (Rust 1965: 56).

> *"Die Namasprache besitzt eine ausserordentliche Wendigkeit. Das zeigt sich besonders bei der Wortstellung im Satzgefüge"*
> *(The Nama language is exceptionally flexible. It is seen especially in the positioning of words in sentences) (*Rust 1965: 56).

In Rust the 'Formenlehre' (something like morphology) takes 100 pages, the syntax 5. However, his work does make the grammar accessible. His basic default sentence structure is :

> Subject [ge] Object [tempus particle] Verb.

He then lays out the rearrangement of these parts as they appear in the highly flexible surface syntax (my interpretation and words here). The brevity and accessibility of this grammar description must involve omissions. There are a lot of frustratingly unexplained elements, such as all the aspects of agreement, and this is dealt with in the section on 'Formenlehre'.

His attempt at simplification is to discuss the positioning of the subject, object and verb separately. Finally, however, everything is permissible, depending on the semantic emphasis in the sentence. This is clearly not the case, note Killian's and Hagmann's mention of complex restrictions on constituent order. According to Rust, the subject may be at the beginning or middle or end of a sentence. What he calls the 'ge Substantivum' or *ge* particle, follows the subject, and in the 'Middle' position it follows the subject agreement, as in the *–b* at the end of : *'/Ai//gams eib'* ('Windhoek', topicalized indirect object), in:

/Ai//gams eib ge Khoiba ra sîsen

(the man, he works in Windhoek)

This shows how in Nama the pronoun remnant (such as *–b*, but there is a complex variety of them as the pronoun system is large) may be attached to the initial item in the sentence, as well as being incorporated in verbs, as we will see (Tindall), during conjugation. Rust's grammatical interest is focused on sentence order and its intersection with the 'ge Substantivum'. As with many linguists of his era and later, his examination of language is clouded by classist or racist assumptions that creep into the illustrative examples, and the global positioning of the language studied. I give Rust's original German translations of the Nama examples as well as English translations (my own interpretation). The questions were not given in Nama

unfortunately, only in German, to show how the constituent order in the 'answers' is determined by the emphasis they give.

THE SUBJECT POSITION:

Position A, and position B are explained for (Rust 1965: 56) the positioning in the simple statement. A is with the Subject sentence initially, and B with either Object or Verb in the initial position.

Beginning (A)

Wer *arbeitet* in Windhoek ? **Who** *is working* in Windhoek?
Der Mann *arbeitet* in Windhoek. **The man** *is working* in Windhoek.
1. **Khoib** *ge* /Ai//gams ei *ra sîsen*.

Middle (B)

Wo *arbeitet* **der Mann** ? where *is* **the man** *working* ?
Der *arbeitet* in Windhoek **He** *works* in Windhoek.
2a. /Ai//gams eib *ge* **Khoiba** *ra sîsen*
2b. /Ai//gams eis *ge* **Khoib** *ta sîsensa*

in the Middle only as a remnant

WAS FUER ARBEIT *macht* **der Mann** ? WHAT TYPE OF WORK *is* **the man** *doing* ?
Der *macht* gartenarbeit. **He** *is doing* gardening.
4. !Hanaba**-b** *ge ra sîsen*

End (C)

WAS macht **der Mann** dort ? *WHAT is* **the man** *doing* there ?
Der *arbeitet* dort. **He** *is working* there.
3. *Sîsen ra* //naba **Khoib** *ge*
3b. *Sîsenë* //naba *ra* **df Khoib** *ge*

THE OBJECT POSITION

This is usually in the middle of the sentence, however:

Object position at the end

When using the short pronoun suffix as object. It comes AFTER the verb

Subject + *ge subj.* + *tempus particle* + *verb* + Object suffix
Tita *ge nîra sari* du, **Sadu** *ge go hui* te

If there are two personal suffixes hanging on the verb then the 'accusative' follows the 'dative' (these as perceived by German speakers, it should be noted that the existence of these cases in Nama has been questioned).

Sadu *ge nîra* +*geib**a*** **te** in
(ihr sollt sie mir rufen)
Calquing literally: . **you** *will call* **for me** them.
Or: **you** *will call* them **for** **me**.

To avoid ambiguity, claims Rust, its best to put the accusative object before the tempus particle:

Subject + ge subj. + accusative object + temp.particle + verb + 'dative' Obj.suffix

frontalizing the object

Object + subject suffix + ge subj. + tempus particle + verb
Gao-aoba da gera !ao.
(Rust sometimes writes dependent particles as independent, should be *Gao-aobada* ?)

THE PREDICATE

This is either post or frontal. Also in the middle when emphasis, syntax and harmony suggest it but ***no rules can be established !*** (this is Rust's and Killian's opinion in Killian ?).

(a) The simplest pattern (default ?) is at the end of the sentence.

1. Khoin ge go **!gû**
(die menschen gingen)(The people departed)

(b) position in the middle of the sentence

//êib di !huba **/nam** hâ xub.
//êib di !huba **/nam** hâb ge Khoiba
(Ein Wesen das sein Land lieb hat , ist der Mensch)
(A being that loves its/his land, is the human being/man)

(c) Frontal position

!gû go khoin ge
(Die Menschen sind gegangen)
(the people departed, with topicalization of verb)

Pattern A (Subject topicalized) is the usual for statements:

subject + ge subj. + object + tempus particle + verb
OR
subject + ge subj. + tempus particle + verb + object suffix

Pattern B (Object or verb topicalized) is used for questions and statements, first the statements:

object + subject suffix + ge subj. + tempus particle + verb
OR
verb + object suffix + subject suffix + ge subj. + tempus particle

If subject and object suffix are joined to one verb, as above, then the verb must be frontalized. They thus take 'position B' (verb first). It can be without *–ge.*

Verb + **object suffix** + *subject suffix* + tempus particle
Ôa **si** *da* nî (suchen werden wir sie) (seek them we will)

Pattern B, questions:

Rust explains, and others confirm, that there is no *'ge' substantivum* in direct or indirect questions, but otherwise the same rules as for propositions and statements apply for tempus particles.

verb + subject suffix + ~~ge subj. +~~ tempus particle

Uts hâ ?	(do you (sing. masc) have ?)
U du hâ ?	(do you (plural neutral) have ?)
Ub hâ ?	(does he have ?)
U gu hâ ?	(do those men have)

Other more complicated Pattern B question with topicalized verb
With demonstrative pronoun

Dīb ge //nati ? (hat er so getan)(did-he thus)
Without subject suffix
!gû go nî ? (will you go ?)
with subject and object suffix(affixed to demonstrative)
mûts ta nen hoana ? (do you see all of this ?)
with no subject suffix (subject is final)
!gû nî gunisa ? (will this wagon go ?)

If the subject of the sentence is a noun or full pronoun the preference is to frontalize, and the verb follows with repetition of the suffix concerned.

Aoba dîb nî ? Wird der Mann e stun ? will the man do it ?

Haacke and Hagmann 1976/77

Haacke, W. 1976. A Nama Grammar: the Noun-Phrase. UCT Master's thesis.
Hagman, R.S. 1977. *Nama Hottentot Grammar*. Indiana University Publications. University of Indiana, USA.

The fullest account of grammar is given by Hagmann, and Haacke gives a very full account of the noun phrase. The intersection of their coverage could be examined to compare approaches and distill useful information for understanding Nama grammar.

However this proves not to work too well as their descriptions do not synchronize with each other. Although he had not seen it yet when writing his thesis, Hagmann's is what Haacke might decry as an approach to grammar based on morphology:

> *An adequate theory cannot be constructed without being from a syntactic rather than morphological point of view, and recognizing deep structure* (Haacke 1976: 271).

Hagmann's section on the sentence is about sequences of permissible ordering of constituents, and his chapters are divided up under categories of sentence constituents such as "the adverbial", and the operations of permutation, conjunction and embedding (Hagmann 1977: 121-139), interrogative, negation, imperative-hortative all discussed separately under active, stative and passive, where applicable (Hagmann 1977: 107-110) leading to what appears to be repetition or redundancy, or context specifics that does not make for riveting reading.

Haacke on the other hand, self confessedly aims to discover the deep structure of the language which explains the complex surface patterning and apparent irregularities. There does appear to be a need to explain 'away' some of the unpredictable, or at least very diverse patterning in the language's syntax, to find some core logic for it, although the process of concatenation is supremely logical with a compositional elegance that makes it as a language, almost seem designed. But I also think it would be hard to explain Nama without addressing the morphological profoundly, as it is relatively agglutinating, and grammar lies in the composition and structure of 'words' in this language more than in a (bad) example like English.

Haacke 1976

Haacke states that the aim of his thesis is to explain the inflexional morphemes of Nama, based on a Chomskyan model of "subject-object" grammar (Haacke 1976: 21). He promises to simplify the sometimes confusing details of Nama grammatical

description which previous author's misinterpretations gave rise to, but does not fulfill this promise. His formal analysis does not produce a simple template that unravels all the complexities of how the language works, but a simple structure so abstract that it bears no relation to surface structure, and cannot be used to generate any sentence reliably with anything approaching simple elegance. Producing sentences from the model involves so many clarifications and stipulations and so many degrees of transformation and so many deletions that in the end his 'underlying structure of Nama' could be the underlying structure of any language. There is nothing about that deep structure specific to Nama, and that is what one is looking for when reading the grammar of a language other than one's own to explain things. The language specific information is all in the modifications as mentioned, and these are so complicated so numerous and fussy, with messy trees in which four branches, or two or one or three are all permissible from any node, that they certainly do not simplify anything. I found, for the kind of understanding I need, and especially since he ignores compounding (Haacke 1976: 30), that his thesis was not useful. However, Haacke knew the language passably well, and his comments about it which are translatable into the 'language particular' rather than the abstract formal are useful. For example Haacke argues against Nama having case with three good reasons (Haacke 1976: 4), and that other phenomena were mistakenly described as such. Mainly the critique is directed at the grammar by Vedder and Olpp and its basis on previous German missionary work, which imposed a latinized understanding, especially regarding case.

There are some basic understandings I was able to glean from Haacke (1976) and Dempwolff cited therein, the roots of words do not appear to have a clear syntactic category, and only become nouns, verbs or adjectives with the appropriate formatives, although these products of morphological concatenation then show a clear use of categorization. Haacke (1976) is also attached to some 'confusing' explanations, in his thesis on the NP (1976) such as that a formal construction of Nama grammar will have to be based on interpreting Nominals as sentences in underlying structure to explain one word copula sentences like Khoeb ge (he is a man), and perhaps too the noun inflexions.
I quote some restrictions in order to build my own interpretation:

This theory helps notional (semantic) distinction between topic (Gegenstand) and comment (Aussage) allowing the following premises.
S > NP AUX V
NP > (S) N^d
VP > (S) (S) V
A minimal sentence has only the following surface structure:
*V N^d AUX Always predicative in meaning and V constitutes comment. If it is dominated by a node NP it must be transformed into the copular structure (the nominalization rule). Though this leads to self contradiction. Note the prohibition mentioned below on the subject coming between the verb and the auxiliary * v + **Ob**-$_{sps}$ + ge + S-$_{fs}$ + aux.*
V (AUX) N^d is copular in meaning, V constitutes the topic. And it is the underlying structure for a nominal.

Based on the restrictions he describes, such as the following:
That there are only three permissible structures in Nama.

US + aux + v
US + v + aux
V + aux + US
Not permissible *aux + v + US*

US = un-splittable subject.

That it is impossible to insert any morpheme between Subject Nd and ge. That the object may not split the inverted verb form *US + v + **Ob** + aux
* v + **Ob** + aux + US
and neither may the subject split V and Aux * **Ob** + aux + US + v
* v + **Ob**$_{\text{-sps}}$ + ge + S-$_{\text{fs}}$ + aux

BUT: that it may go before subject pronoun **Ob**$_{\text{-sps}}$ + ge + S-$_{\text{fs}}$ + aux + v
suffix and free (no ge), suffixed full form **Ob**$_{\text{-sps}}$ + ge + S-$_{\text{fs}}$ + v + aux

I worked out what was for me a simpler template, using these restrictions on the positioning of the US, and the verb and aux (in 'normal' AUX + V and inversion order V + AUX), and the fewer restrictions on the placement of the object. This template is based on the permissible positioning of the Object/patient for sentences with a transitive verb.

Haakce SUMMARY

1) **(obj +** US + **obj** + **aux + obj + v** + **obj)**
2) **(obj +** US + **obj** + **v + obj + aux** + **obj)**
3) **(obj** + **aux + obj + v** + **obj** + US + **obj)**
4) **(obj** + **v + obj + aux** + **obj** + US + **obj)**
5) **(obj** $_{\text{-sps}}$ + ge + S-$_{\text{fs}}$ + **aux + v)**
6) **(obj** $_{\text{-sps}}$ + ge + S-$_{\text{fs}}$ + **v + aux)**

Bearing in mind that any one object can only occur once in a simple sentence without embedding, the blue represents the allowed object position in a sentence, the red the disallowed.

The underlined shows the verb-aux group and that it is unsplittable in all but the first case. This template is based on reading a lot of specifications, but it doesn't explain why the positioning patterns thus. Which is why I still support Haacke's quest for understanding through deep structure, though I think he did not succeed in making the language's structure comprehensible.

Haacke's arguments against Nama having case (Haacke 1976: 271) follow:
Though it may be used for practical purposes, its not possible to state that Nama has a case system, because:

1) Inflectional morphemes are not integral part of the noun phrase (head constituent) though they do follow it (as bound morphemes).
2) Nama case is 'phrasal case' distinct from what is normally understood by case
3) The use of zero or *–a* morpheme depends not on deep case relation, but on syntactic hierarchy, the subject in the subject slot takes zero and all subsequent NP's take *–a*.
4) But this is barely adequate, it doesn't account for oblique form in interrogatives and 'vocative'. Which need ad hoc rules mentioning these as exceptions. The ad hoc rules fail to uncover the underlying regularity in all Nama sentences and NP's.
5) Obviously this is only on the NP and this is not complete

He sees himself as ‘showing the way for future research into Nama’ with a ‘consistent theory’ ie: no ad hoc context specific rules. It takes him 261 pages of context specific (if one sees different syntactic situations as contexts) description to do this. It appears as a parade example of a failed generative enterprise.

Hagmann 1977

By comparison, the writing of Hagmann which is perhaps not as abstract and theoretical, or universalizing in its scope, is somewhat more lucid on some points. Hagmann states some very simple rules for the construction of a declarative sentence. Once this is established he explains very simply how the subject reacts in the case of permutation. This is according to data which is based on a large body of recordings and empirical work. He too criticizes the linguist-clerics which have gone before, but he does not comment on Haacke, perhaps as their writing was published nearly contemporaneously.

TYPES OF SENTENCES

According to Hagmann there are three types of sentence which as in other languages, each have a characteristic structure, namely the **declarative, interrogative and imperative**. The declarative is the most frequent and ‘exemplifies most clearly the basic structure underlying all sentences’. In Nama the interrogative is a declarative with an information gap marked by an interrogative morpheme, and the imperative is a declarative which dispenses with a subject, and is marked by an imperative particle at the end of the sentence in Nama. Unlike in some other languages, the declarative is not unmarked, it is marked by ke, and its structure is:

NP + ke + PredP (predicate phrase)

But there is another declarative where truth is asserted,

NP + km + PredP + ‘oo (54)

THE SENTENCE

The full sentence structure is :

NP + Dec + (Advl) + (NPa) + (NPa) + Tense + (*Imp*) +V[+act] + (Perf)

With bracketed items being optional and NPa standing for the direct and indirect object NP’s (61).

TENSE AND ASPECT

The **imperfective** aspect in which the event is progressing at the time indicated by the tense, the VP structure (based on the sentence above is:

(NPa) + (NPa) + *kere/koro/ra/ta/niira/kara* + V(+ act) ~~+ Perf~~

in which the 5 tenses and aspect are concatenated.

The **perfective** aspect in which an event is completed before the time referred to by the tense morpheme, resulting in a state of affairs at the time of the tense morpheme:

(NPa) + (NPa) +	Tense ~~+ (imp)~~ + V(+act)	+ Perf
(NPa) + (NPa)	+ ke (distant past) + V(+act)	+ haa ii,
	+ ko (immediate past)	+ haa ii
	+ 0 (present)	+ haa
	+ nii (future)	+ haa haa
	+ ka (indefinite)	+ haa

The past allomorph of the copula is *ii, haa* usually means ‘to exist’ or ‘to be in a place’ but her its an aspect auxiliary.

VERB ROOT DERIVATION
This is more opaque, and unproductive.

VERB STEM DERIVATION
Productive, and the affixes thus have clear meaning.
Reduplication (causative)
Reduplication itself conveys causative meaning. The second part becomes lower in tone. All are active when reduplicated (73)
Reduplication with *–ka* (repetitive)
Ka is inserted between the first and second repetition. As in //naeka//nae (sing over and over) !hoaka!hoa (talk over and over) it conveys repeated action.
diminutive with *–ro*
Added to any verb root the diminutive means 'a bit'
The above give an example of the compositional and transparent nature of verb derivation (74)
V to NP derivational suffixes
The outer layer on the verb alters the relationship from V to NP

Verb stem =	[0 NP] + (-'u)	}	+(-pa) + (patient suffix)
	[1 NP] or [2NP]	}	

TRANSITIVITY
3 categories of intransitive, transitive and ditransitive
Intransitive
All simple intransitives and compounds in which both are intransitive show familiar pattern described above: *//iip ke ke /xii.* (he came) *Taras ke ra !uu* (the woman is going)
Transitive
The greatest number of simple verb roots are transitive, meaning they take direct object: *Tiita ke saatsa ra !ao* (I fear you) (76)
Ditransitive
Compounds with at least one ditransitive usually belonging to category with highest transitivity (77)

THE STATIVE VERB PHRASE
Hitherto much of Hagmann's description has been on active sentences. The structure for the stative is : Tense + (Pred) + Cop
The copula has three possible realizations:

1) stative verb
2) NP complement
3) Nothing at all (parentheses) (88)

PERMUTATION
Here is Hagmann's pattern for a number of sentence types (145) before permutation.

Declarative	NP + Decl + PredP
Interrogative	NPa + Int + PredP
Imperative-hortative	NPà + PredP + IH (re/0)

NP = noun phrase and includes the person, gender number (pgn) suffix which is always appended to the Subject of the sentence (107).
Decl = the declarative particle *ge/ke* which always follows the pgn suffix that Hagman calls the subject indicator.

Pred = the Predicate phrase and the direct or indirect objects.
NPa = the direct object marked by *–a* suffix.
Int = optional interrogative marker or zero
NPà = optional object marked with *-à* suffix
IH = the imperative hortative suffix *–re* or zero
The permutation that leads to Nama's dazzling syntactic flexibility occurs thus: reduced to three simple principles of permutation, each with their own syntactic restrictions (it should be marked):

a) initialization
b) finalization
c) internal scrambling

The default position

As we see above in the 'normal' or default sentence order in the declarative sentence: subject NP is initial, is followed by ke. Thus: NP = STEM + pgn suffix
Sentence Structure is STEM + pgn + ke + VP. The subject NP is moved using the syntactic phenomenon of 'deposed subject' (108).

Permutation

If another element X is frontalized it MUST replace the stem, which is deleted, and may be re-introduced in an NPa (deposed subject form) ***AFTER*** ke, and the pgn suffix is then attached to X, the subject marker ke follows that pgn, and we have the following is the structure:
X + pgn_1 + ke + (STEM + pgn_1 + -a) + ….. (pgn's are the same)
The underlined is just like the original initial subject plus the *-a* suffix (its called the deposed subject) and the *–a* suffix does not mark 'the subject' but any subordinated NP. If the original subject NP was a pronoun, the deposed subject is redundant and is deleted (as the pgn suffix contains enough information) unless emphasis requires its presence, so the pgn suffix is like a clitic pronoun, and that before the ke is the subject indicator (SI) (109).

This subject indicator can be attached to nearly anything, allowing initializing of adverbials, NPa's and V (which may bring tense and aspect particles to the front)
I understand this as a partial preserving of the sentence order by the anaphoric presence of the pgn subject indicator. Only one element can be initialized in any one sentence, and the other parts must keep their default sentence order, and deposition of subject NP is compulsory unless the verb is initialized (110) in which case different rules apply.

Verb frontalizing may occur without subject deposition as in:

'aop ke ra +'ai (the man is thinking)
+'ai ra 'aop ke (the man is *thinking*)

Note that the aspect auxiliary 'ra' must follow the verb forward, the normal AUX + V order must be inverted to avoid having a sentence initial particle, but the declarative particle is at the end following the undeposed (still 'nominative') subject NP with its pgn suffix *–p* (111).
The negation, *tama* in the declarative, always follows the verb (112).
If **more than one** constituent is frontalized (for example tense and copula, or adverbial and predicate) then the subject NP may not be deposed. But inversion also occurs there to prevent starting with particle (113). Given the reputed flexibility of Nama syntax due to permutation, one can see here that there are many

'disambiguating' mechanisms at work, such as this rule that the subject may not be deposed when multiple constituents are frontalized
The internal scrambling is also limited. It may only occur in an active as opposed to stative sentence, and only the order of subordinated NP's and adverbials are involved. Below the heavy type items may be scrambled, and all items in brackets are optional:
NP + ke +***(Adv1) + (Adv2) +(NPa) + (NPa)*** + tense + (Imp) + V(+act) + (perf)
For example indirect and direct object NPa may be reversed but **only if the meaning is still clear**. This limited scrambling gives sentences with an adverb and two objects 6 permutations, without even using frontalizing (114)

Hagmann describes the internal scrambling with a comprehensive formula for active and stative sentences.
NP + ke + (optional elements) + TAC1 + VPN + TAC2
Optional elements may be :

a. initialized with subject deposition
b. finalized
c. scrambled

TAC = tense aspect copula complex (must be present in some form, though tense is obligatory, two possible positions, having one being obligatory)
VPN = verb phrase nucleus (obligatory) (115)

NEGATION
Negation of active verb
punctual aspect

(NPa) + (NPa)	+ ke	+ V(+act)	+tama + 'ii	remote past
	+ ko			recent past
	+ka			indefinite
	+ 0		+tite	future

with tense movement the result is this :

(NPa) + (NPa) + V(+act)	+tama	+ ke	+ 'ii	remote past
		+ ko		recent past
		+ka		indefinite
	+tite	+ 0		future

nonpunctual aspect negation,

(NPa) + (NPa)+ V(+act)	+tama	+ ke	+ 'ii	remote past
		+ ko	+ 'ii	recent past
	+ka	+haa	+ 'ii	indefinite
		+ 0		present
	+tite			future

(89)

Negation of stative

+ V(-act)	+tama	+ ke	+ 'ii	remote past
		+ ko	+ 'ii	recent past
	+ka	+haa	+ 'ii	indefinite
		+ 0		present
		+nii	+ii	future I
	+ tite	+nii	+ii	future II

(91)

In contrast to Haacke whose complexity is in rule adaption, Hagmann is a collocation expert before collocation became fashionable, and without using statistics. He elaborates on the above framework, explaining grammar suffix by individual suffix.

12.2 Interpretation and summary of Haacke's (1999) tone perturbation rules

Haacke's bimioraic system converts to Beach's six tone system with 12, 13, 22, 32, 24, 43
(Haacke 1999: 56)

Compounds either Sandhi, flip flop or retention of citation form, or specific melodies irrespective of input (drop, low, high rising . and combos of above)
(Haacke 1999:107)

type of perturbation depends on internal syntax of the compound (Haacke 1999: 109).

Transitives form intransitives with 22 or 13 applied to all.
(Haacke 1999: 74)

Sandhi

The Sandhi versions of these are regular but more limited.

CITATION	SANDHI
o̍ o̍	o̍ o̍
o̍ ó	o̍ o̍
o̍ o̍	o̍ o̍
ó ó	o̍ o̍
ó ő	o̍ o̍
ő ő	ó ó

(Haacke 1999:11)

compounding	CITATION INPUT	RULE	SANDHI OUTPUT
	12 12	cs	12 21
	12 13	cs(s)	12 13
	12 22	cs(s)	12 22
	12 24	cs	12 22
	12 32	cs	12 21
	12 43	cs	12 32

Syntax or embedding in further compounds (EXTERNAL CONDITIONS !!! NOT INTERNAL AS WITH COMPOUNDING) perturbs 1st part of compound, so it would make this 12 into 21 by Sandhi rules. SO EXTERNAL INFLUENCE causes like a reverse of the patterning, the first part goes Sandhi, the rest is already Sandhi due to compounding. (Haacke 1999: 108)

-sa or –xa derivative suffixes which form adjectives (Haacke 1999: 112)

Flip flop

Flip flop occurs only in compound formation, 3 melodies switch to others, 12, 32, 43, switch to 13, 22, 24 respectively the former are weak and the latter strong in contexts of bilateral switching… all flip flops in unilateral contexts only the weak switch (Haacke 1999: 73).

Flip flop rules switch always occurs in the 1st root ! 2nd retains or Sandhi (occassionaly) some roots switch, others don't, highly irregular. (Haacke 1999: 116)

in flip flop the weak melody switches to the resilient melody opposite it on the table

weak melodies	resilient melodies
12	13
32	22
43	24 (Haacke 1999: 73)

verb + verb compounds don't use Sandhi but flip flop (Haacke 1999: 111)

blocked by grammatical formatives – younger generation have simplified it..

flip flop almost exclusive in 2 verb compound verbs. (Haacke 1999: 118)
flip flop can be triggered by a lexical formatives or grammatical formative.
if the verbs are non-identical there can be

1) 1st half flip flop + 2nd half citation or
2) flip flop + Sandhi

employs unilateral switching ie: only weak melodies are switched 12, 32, 43, and 13, 22, 24 remain resilient . if a root triggers flip flop, it always does. Except if first is a noun (Haacke 1999: 119)
They also have causative, verbs of causation, pretence, progressive, verbalization (Haacke 1999: 116-148)

There is a list of flip flop triggering roots (Haacke 1999: 121-133)

Flip flop in reduplication

causative verbs

Bilateral flip flop and final drop on the second root, distinguishing it from other reduplications like the progressive and verbs of pretence. last tone is ä è ì ò ù and previous is also perturbed. (Haacke 1999: 134)
Flip flop rules are, on page 116 its table 13, section 2.2.3, page 73. (Haacke 1999)

verbs of pretence

ALSO USE redup. And reflexive verbal extension unilateral flip flop – the melody on 2nd root changes to 24 irrespective of its original citation form, it's a toneme, and the 1st does flip flop. (Haacke 1999: 134-137)

Flip flop with affixation

derivation suffix -xä (prone to)
changes to adjective ..
adjectivization ǀgäiˊgàíˊsènxä (habitually pose as being strong)
nominalizationǀgäiˊgàíˊsènxäsïb (the habit of posing as being strong)

and -sȁ (able to be ‘x’-ed, or ‘x’-able)
-bȁ (applicative extension)
(Haacke 1999: 137)

progressive
using reduplication, unilateral flip flop, on 1st root and 22 on 2nd. (to make it semantically distinct) essentially intransitive and denote ‘turn into’ or ‘degenerate into’ with ethnonyms. Except with applicative extension -bȁ
(Haacke 1999: 138)
and the verbs kùwú and !goá in which case transitive
ǂkhű́ú doesn’t flip flop either, just takes 22 melody. Maybe they are already transitive
(Haacke 1999: 139)

multiradical verbs
Flip flop can be triggered by embedded compounds with constituents with post modifier function.

```
!gű́ù (go/walk)      sórè  (sun)          ǂgà-à  (enter, set of sun)
         32                       32                 22
         I                        ---------------------
         I                        sórèǂgà-à  (pass a day)
         I                        32                 22
         I                                  I
         I                                  I
         ---------------------------------------------
                 !gùùsȍrȅǂgà-à  (walk till sunset)
                 22       21   22
```

(Haacke 1999: 140)

ventive verbal extension -xȁ
To come towards he speaker. Some grammatical formatives trigger flip flop, maybe for contrast, to distinguish from homophones.
TRIGGER UNILATERAL FLIP FLOP (Haacke 1999: 141)

applicative extension - bȁ (do for, on behalf of)
-bȁ is so dominant it changes some grammatical formatives and causative reduplications**.** (Haacke 1999: 142)

ventive verbal extension -xȁ

Internal reflexive - n
Triggers flip flop (though reflexive –sen doesn’t) for verbs with encorporated object.
Triggers unilateral flip flop (Haacke 1999: 142)
ǂkháùmȕ-ú apply ointment to someone’s eye
ǂkhàáùǹmȕ-ú apply ointment to one’s own eye

ventive verbal extension -xȁ
(towards speaker) trigger bilateral flip flop which serves to disambiguate from the deverbative adjectives with **-xȁ,** which don’t trigger flip flop (Haacke 1999: 143)

verbalizing suffix – si and all derivatives are transitives, all denote some action that processes something. Triggers bilateral flip flop. (Haacke 1999: 144)

suffix –bè/ -pḗ
diverse: adverbial derivative, enumerative, nominal suffix, and in semantic capacity (with verbs) "that is not quite obvious" assimilates fully after nasals to give –me, -ne. double high and double low allomorphs and low for adverbs, flip flop is bilateral with verbs, but no flip flop with nouns and adverbs.
(Haacke 1999: 145)

verbalizing suffix - rò
distinguished from diminutive -rò̩ for nouns and –rṓ for verbs by triggering flip flop. (Haacke 1999: 147)

suffix -kḗ
obscure function flip flop in about a third of cases. Seems unilateral in verbs, optional use with compound verbs, nouns, adjectives. Nominal – not usual unless nominalizations of verbs with flip flop, or for contrast and disambiguation. (Haacke 1999: 148)

in derived compounds nouns, mostly based on verbs.
! ù-ù|hàṓäöb
(lit. go – together – man) (fellow traveler or camp follower) (Haacke 1999:149)
|hàṓ triggers flip flop verb internally, this is used for instrumental nouns (tools etc.) and nouns of locality.
De adjectival abstract nouns
Eg: 'hold oneself back' converted to adjective by –sà or –sā́ (for intransitives)abstract noun formed from this by suffix - s ï , *(described previously as verbalizing suffix p. 144, another confusing contradiction)* to mean 'introversion' (lit. catch-return-refl. Adj. nom)
!khò̩ṓóàsènsäsïb (Haacke 1999: 150)

flip flop in endocentric compounds
like English blackbird, qualifier and head noun, flip flop may be employed for disambiguation, head undergoes Sandhi if qualifier precedes it (is 1st)

noun derivation by flip flop
a very very ambiguous self contradicting piece.
Me; the flip is to differentiate from –s ending (Gerunds with no notational change) when the noun ends in –s, sometimes applied to other endings nouns in the verb>noun derivation process. (Haacke 1999: 152)

flip flop and grammatical formatics
mainly for contrast, nominal derivative morpheme –rà and -rā́. (Haacke 1999:153)

compound adjectives and flip flop – multi radicals with own flip flop in endocentrics and monoradicals where derivative morpheme triggers flip flop.
also see p141. Can be added on to verbs of pretense. (Haacke 1999: 155)

adjectivization
Flip flop triggered by grammatical formatives to distinguish them from homophones, so the applicative case, and ventive case, and internal reflexives, ventive (case of moving towards the speaker) trigger unilateral flip flop. (Haacke 1999: 141-138)

12.3 lists of Affixes, particles and small question words

b pronominal suffix masc sing
-bà (applicative extension) (Haacke 1999: 137)
–bè/ -pḗ diverse: adverbial derivative, enumerative, nominal suffix, semantic capacity (with verbs) “that is not quite obvious” (Haacke 1999:145)
di possessive particle ?
gu reflexive affix
-kḗ obscure with verbs, compound verbs, nouns, adjectives. (Haacke1999: 148)
ge tempus particle or subject marker
go tempus particle
-gu reciprocal verbal extension
kha question particle
-he passive verbal extension (Fredericks 2013: 122)
i pronominal suffix neut sing
- n infix (Internal reflexive) (Haacke 1999: 142)
- n – infix (Internal reflexive) (Haacke 1999: 142)
–rà and -rā́. nominal derivative morpheme (Haacke 1999: 153)
- rò verbalizing suffix distinguished from (Haacke 1999: 147)
-rò diminutive for nouns (Haacke 1999: 147)
–rṓ diminutive for verbs (Haacke 1999: 147)
s pronominal suffix fem sing
–s ending no ff (Gerunds with no notational change) (Haacke 1999: 152)
–s ending , noun derivation with ff (Haacke 1999: 152)
-sa or –xa derivative suffixes which form adjectives(Haacke 1999: 112)
–**sà or –sā́** converted to adjective by (for intransitives)
-sà (able to be ‘x’-ed, or ‘x’-able) (Haacke 1999: 137)
– si verbalizing suffix. all derivatives are transitives, all denote some action that processes something. (Haacke 1999: 144)
- s ì verbalizing suffix. all derivatives are transitives, all denote some action that processes something (Haacke. 1999: 144)
- s ì abstract noun formed from this by this suffix
sen reflexive affix
-xà, deverbative adjectives which don’t trigger flip flop**.** (Haacke 1999: 143)
-xà derivation suffix (prone to) (Haacke 137)changes to adjective with redup
-xà ventive verbal extension to come towards he speaker. (Haacke 1999: 141)
xuu a root, with prepositional meaning, out of.

Following pages, The Appendix of :

Hagmann, R.S. 1977. *Nama Hottentot Grammar*

Please page to P. 159 in Hagman's appendix for the particle list and P. 164 for the list of suffixes.

APPENDIX:
A SAMPLE TEXT

xaḿ-i ke 'a /úrúǹ hòáǹ tì kàó'ao káísep 'a /aísa, /óḿ //xáí, xápú kxáó, tsíǐ !háése ra !xóés !'áróma.

tsíǐ maa̋tsekáḿ //óakas hòásàp ke ≠xaḿ xaḿ-à !árop !naã ≠'oá tsíǐ //'íip tì /aísìpà síí kèrè /noóku náú /úrúǹ /xáa. tsíǐ maa̋ tsèes hòásàp ke //'íipà kèrè 'óa-/xií tàǹ'aose. tsíǐ nee ≠hõ̀as ke /úrúǹ !hùúp hòárákap !naã kè //nàűhè tsíǐ ≠'áńhè 'ìí xaḿ-i 'a /úrúǹ tì kàó'ao !xáisà. tsíǐ maa̋ tsèes híǐ'ap kèrè 'óa-/xií tàǹ tsíǐs kxáó!a̋ã 'oos ke //'íip tì //uũsà kèrè koápi "tíí 'õa̋tse! /óḿ !nórótse! xápú kxáótse! /óḿ //xáítse! 'áore kxòetse!" tí.

xapes ke /úí tsekáḿ //óaka kxàĭ-maa̋ tsíǐp ke ≠xaḿ xaḿ-à kàrósn 'oo !xóó/xáapi "/óḿ //xáítse! /óḿ !nórótse! xaḿ //'oãtse! xápú kxáótse!" tí, !xóó/xáapi tóá tsíǐ kè míǐ "aḿ'aseta ke ra ≠óḿ saáts maa̋ /úrúǹ hòáǹ xaa 'a /aísa !xáisà. maa̋ tsèes hòásàts ke saátsà ≠'oá !árop !naã tsíǐ 'óa-/xií tsíǐ ra //aute 'aḿ'asets saátsà 'a /úrúǹ tì kàó'ao !xáisà. xape, tíí 'õa̋tse! /úí tsèets ke nǐǐ ≠'oá !árop !naã. tsíǐ ≠'oá tsíǐts !árop !naã ra !uũmaã híǐ'ats ke ≠xarí xuuróp ≠hanúse ra !úũ !xoótì !naã ≠nùã tànásepà nǐǐ mùũ. tsíǐ, tíí 'õa̋tse! /óḿ //xáítse! /óḿ !nórótse! xápú kxáótse! //naa̋ ≠xarí xuuróp /xáats kàrà /haó'ú tsèes //naa̋s 'áís ke sóresà nǐǐ ≠ãã 'óa-/xií tamats hã̀a híǐ'a. //naa̋ xuuróp tì /'òns ke "kxòep" tí ra ≠aíhè."

The lion is king of all the beasts because he is very strong, thick of chest, slim of waist, and runs fast.

Every morning, the young lion would go out into the forest and compare his strength with the other beasts. And every day he would return the victor. This news was heard and known throughout the animal world: that the lion was king of the beasts. Every day that he would return victorious, his mother would praise him, "Son of mine! Thick of neck! Thick of chest! He-man!."

But one morning, when having got up the young lion was stretching, she

praised him, "Thick of chest! Thick of neck! Lion-armed! Slim of waist!," finished praising him and said, "I truly believe that you are strongest of all the beasts. Every day you go out into the forest and return, and show me that you are truly king of the beasts. But, my son, one day you will go out into the forest. And while you are out walking around in the forest, you will see a little thing which walks straight, its head sitting on its shoulders. And, Son of mine! Thick of chest! Thick of neck! Slim of waist!, the day you meet that little thing, on that day the sun will set while you have not returned. The name of that little thing is called 'man.' "

The following is a morphological analysis of the text with an approximate morpheme-by-morpheme English translation. Those morphemes which are not easily translated are designated by abbreviations. For a thorough understanding of the text these should be looked up in the indexes. The abbreviations are:

Abs	abstract	Neg	negative
Acm	accompanitive	Par	participial
Ajd	adjective deriving	Pass	passive
Avd	adverb deriving	Pcop	past tense copula
Cop	copula	Perf	perfective aspect
Dec	declarative	Rcp	reciprocal
Dim	diminutive	Rfl	reflexive
Dqt	direct quotation	Rmp	remote past tense
Fut	future tense	Sub	subordinative
Idd	indirect discourse	Voc	vocative
Ind	indefinite tense	2Pro	2° pronominal
Imp	imperfective aspect	3Pro	3° pronominal

Suffixes which denote person, gender, and number are designated as follows: 1s = 1° sing., 2ms = 2° masc. sing., 3ms = 3° masc. sing., 3fs = 3° fem. sing., 3cp = 3° com. pl. In cases where these suffixes are not attached to nouns, the grammatical constructions in which they participate are abbreviated as follows: si = subject indicator (p. 109), ap = appositive (p. 46), nom = nominalization (p. 126), obj = object suffix (pp. 79-80).

xaḿ -i ke 'a /úrú -ǹ hòá -ǹ tì kàó -'ao kái
lion 3ms Dec Cop animal 3cp all 3cp/ap of rule man big

-se -p 'a /aí -sa, /óḿ //xái, xápú kxáó, tsíí !háé
Avd 3ms/si Cop strong Ajd thick chest slim waist and fast

-se ra !xóé -s !'áróma. tsíí mãã́ -tse -káḿ //óa
Avd Imp run 3fs/nom because and which day Ajd morning

-ka -s hòá -s -à -p ke ≠xaḿ xaḿ -à !áro
Avd 3fs all 3fs/ap Sub 3ms/si Dec young lion 3ms+Sub forest

-p !nãã ≠'oá tsíí //'íí -p tì /aí -sì -p -à
3ms into go out and 3Pro 3ms of strong Abs 3ms Sub

síí kè -rè /noó -ku náú /úrú -ǹ /xáa. tsíí
arrive+Par Rmp Imp measure Rcp other animal 3cp with and

mãã́ tsèe -s hòá -s -à -p ke //'íí -p -à kè
which day 3fs all 3fs/ap Sub 3ms/si Dec 3Pro 3ms Sub Rmp

-rè 'óa- -/xií tàḿ -'ao -se. tsíí nee ≠hõ̀a -s ke
Imp go back come conquer man Avd and this news 3fs Dec

/úrú -ǹ !hùú -p hòá-rá-ka -p !nãã kè //naṹ -hè
animal 3cp land 3ms all 3ms/ap in Rmp hear Pass

tsíí ≠'áḿ -hè 'íí xaḿ -i 'a /úrú -ǹ tì kàó -'ao
and know Pass Pcop lion 3ms Cop animal 3cp of rule man

!xái -s -à. tsíí mãã́ tsèe -s hĩ́'a -p kè -rè 'óa-
Idd 3fs Sub and what day 3fs that 3ms/si Rmp Imp go back

-/xií tàḿ tsíí -s kxáó-!ãã́ 'oo -s ke //'íí -p
come conquer Par 3fs/ap after then 3fs/si Dec 3Pro 3ms

tì //ṹu -s -à kè -rè koá -pi tíí 'õã́ -ts
of parent 3fs Sub Rmp Imp praise 3ms/obj my child 2ms

-e! /óḿ !nóró -ts -e! xápú kxáó -ts -e! /óḿ //xái
Voc thick neck 2ms Voc slim waist 2ms Voc thick chest

-ts -e! 'áo -re kxòe -ts -e! tí. xape -s ke /úí
2ms Voc man Ajd person 2ms Voc Dqt but 3fs/si Dec one

-tse -káḿ //óa -ka kxàĩ- -mãã́ tsíí -p kè ≠xaḿ
day Ajd morning Avd jump up stand Par 3ms/si Rmp young

xaḿ -à kàró -sn 'oo !xóó-/xáa -pi /óḿ //xái
lion 3ms+Sub stretch Rfl when praise 3ms/obj thick chest

-ts -e! /óḿ !nóró -ts -e! xaḿ //'õã -ts -e! xápú kxáó
2ms Voc thick neck 2ms Voc lion arm 2ms Voc slim waist

-ts -e! tí, !xóó-/xáa -pi tóá tsíí kè mĩ́ĩ́ 'aḿ'a -se
2ms Voc Dqt praise 3ms/obj finish and Rmp say true Avd

-ta ke ra ≠óḿ saá -ts mãã́ /úrú -ǹ hòá -ǹ
1s/si Dec Imp believe 2Pro 2ms which animal 3cp all 3cp/ap

xaa 'a /aí -sa !xái -s -à. mãã́ tsèe -s hòá -s
than Cop strong Ajd Idd 3fs Sub which day 3fs all 3fs/ap

-à -ts ke saá -ts -à ≠'oá !áro -p !nãã tsíí
Sub 2ms/si Dec 2Pro 2ms Sub go out forest 3ms into and

'óa- -/xiǐ tsīǐ ra //au -te 'aḿ'a -se -ts saá -ts
go back come and Imp show ls/obj true Avd 2ms/si 2Pro 2ms

-à 'a /úrú -ǹ tì kàó -'ao !xái -s -à. xape, tíǐ 'óā́
Sub Cop animal 3cp of rule man Idd 3fs Sub but my child

-ts -e! /úǐ tsèe -ts ke nǐ̀ǐ́ ≠'oá !áro -p !nāã.
2ms Voc one day 2ms/si Dec Fut go out forest 3ms into

tsīǐ́ ≠'oá tsīǐ́ -ts !áro -p !nāã ra !ūũ- -mãã hǐ́ǐ́'a
and go out Par 2ms/si forest 3ms into Imp go around while

-ts ke ≠xarí xuu -ró -p ≠hanú -se ra !úũ !xoó
2ms/si Dec small thing Dim 3ms straight Avd Imp go shoulder

-tì !nāã ≠nùã tàná -se -p -à nǐ̀ǐ́ mùũ. tsīǐ́, tíǐ 'óā́
3fp in sit+Perf head Avd 3ms/ap Sub Fut see and, my child

-ts -e! /óḿ //xáí -ts -e! /óḿ !nóró -ts -e! xápú kxáó
2fs Voc thick chest 2ms Voc thick neck 2ms Voc slim waist

-ts -e! //nāã́ ≠xarí xuu -ró -p /xáa -ts kà -rà
2ms Voc that small thing Dim 3ms with 2ms/si Ind Imp

/haó -'ú tsèe -s //nāã́ -s 'áí -s ke sóre -s
come together Acm day 3fs that 3fs/ap on 3fs/si Dec sun 3fs

-à nǐ̀ǐ́ ≠ãã 'óa- -/xiǐ tama -ts hãã hǐ́ǐ́'a. //nāã́ xuu
Sub Fut go in go back come Neg 2ms/si Perf while that thing

-ró -p tì /'òn -s ke kxòe -p tí ra ≠aí -hè.
Dim 3ms of name 3fs Dec person 3ms Dqt Imp call Pass

Note: The sequence *!xóó/xáapi . . . !xóó/xáapi tóá* "praised him . . . finished praising him" is a repetition which is not really grammatically acceptable, but it has the desireable stylistic effect of "framing" the quote. Either of the *!xóó/xáapi*'s could be eliminated and the sentence would be grammatical.

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INDEX OF GRAMMATICAL ROOTS, PARTICLES, AND WORDS

Alphabetical Order: a, e, f, h, i, k, kx, l, m, n, o, p, r, s, t, ts, u, v, x, ', ˜, /, /h, /n, /x, /', ≠, ≠h, ≠n, ≠x, ≠', //, //h, //n, //x, //', !, !h, !n, !x, !'. When forms differ by tone alone, the order is: V́, V, V̀.

INDEX OF SUFFIXES

Alphabetical Order: a, e, f, h, i, k, kx, l, m, n, o, p, r, s, t, ts, u, v, x, ', ¯, /, /h, /n, /x, /', ≠, ≠h, ≠n, ≠x, ≠', //, //h, //n, //x, //', !, !h, !n, !x, !'. When forms differ by tone alone, the order is: V́, V, V̀.

13
Morphology

13.1 Affix ordering in Bauer 1988

Bauer cites Bybee (1985). Where affixes tend to appear on one side of the base, (but not for languages where this handedness is mixed), strong universal tendencies are seen in morpheme order (where order is discernable) with verbs mostly being [[[[[[root]aspect]tense]mood]imper]person]interr, and nouns [[[root]IMP]number]case (Bauer 1988:239). This is precisely reversed in prefixing languages. Languages using only suffixing use postpositions, and only prefixing use prepositions. Bybee (1985) argued that morpheme order is due to relevance and generality (Bauer 1988:239). The more 'relevant' (the more it affects lexical content) the more likely the morpheme will be expressed by a separate lexical item or by derivation or inflection, and this decreasing level of perceived relevance, is a cultural property. The more lexically general (applying to huge swathes of bases), the more likely the morpheme is to be inflectional. The description is also very circular (the more it affects lexical content the more its likely to be expressed by a separate lexical item) and are not inflectional morphemes defined by their generality (Bauer 1988:240).

13.2 Some morphological universals, Greenberg 1963.

Implicational and some other morphological universals Greenberg (1963) simplified and in point form

1) if you have inflection you have derivation.
2) If you have morphological gender marking you have number marking
3) Trial (3's) number implies there is dual, which implies plural
4) If V agrees in gender with S or O, it also agrees in number, and Adj agree in gender with the N they modify.
5) If it marks N gender it marks pronoun gender
6) If pronoun has gender in plural it also has in singular
7) If gender on 1st person pronoun, then gender on 2nd and 3rd.
8) morphological person, number, gender on verb, implies marking of tense and mode on verb
9) Never more gender categories in non singular than in singular
10) derivational affixes closer to root than infl.

Greenberg (1963) lists some 'implicational universals', but note there are no implications for types, only for the correlation between language components: inflection implies derivation, morphological gender marking implies number marking, trial (number) implies dual, and dual plural, if the verb has gender agreement it also has number agreement, implying also adjectival agreement with modified noun. Noun gender marking implies the same for pronouns, non singular never has more gender categories than singular (disputable in Nama), if a pronoun had gender in the plural, it also has it in singular (also disputable in Nama). Gender marking on first person pronouns implies gender on second and third. Morphological person, number, gender marking on the verb implies marking of tense and mode on the verb (1963: 242) (not

true in Nama, tense particles are separate). VSO seem to use prepositions, SOV postpositions, but not true for Persian (Greenberg 1963: 231). Greenberg (1963) states that derivational affixes are closer to root than inflectional (1963: 242).

13.3 Recognizing morphemes

It is the basic insight of morphology that word forms can be analyzed into morphs with a consistent form-meaning correlation (Bauer 1988: 154). This sets Bauer at odds with the stream of my investigation, however I do find her thorough coverage very useful.
Language users don't always distinguish the parts of words correctly and it appears to be a historical process, that affixes which are no longer productive can no longer be recognized as separate morphemes, by some speakers. Seen over a long view, language death appears to lead to the confusion of productive and unproductive processes which are otherwise somehow kept apart (Bauer 1988: 158).

Bauer gives guidelines for identifying morphemes in various situations when they are even hard to distinguish for linguists. For example if affixes have the same form and different meaning and distribution. If the meaning is distinct, without overlaps, it's a different morpheme. Function and preference of bases may also differentiate it (say as for adjectivization or verbalization) but prefixes don't generally have clear distinctions in choosing bases or creating category (Bauer 1988: 147-148).
Her interpretation of permissible form with *endearment, entrapment* but **encounterment, *enclosement* as being due to different morphemes because only forms in complementary distribution can be taken to realize a single morpheme, I find excessive. As the words in the dictionary are lexicalized and often show processes that are no longer productive, and both have alternatives which may be older and have blocked the now 'incorrect' forms (Bauer 1988: 150).
Indeed, when it suits, there is acknowledgement that lexically conditioned morphemes are not always in perfect complementary distribution. She cites examples of unusual plural forms which have alternative regular forms.
Affixes may be found with a range of bases but those found with a particular base are less diverse. (Bauer 1988: 151). Derwing 1973 and Baker 1979 in a table plotting with a selection of words, the intersection of phonetic and semantic opacity, illustrate that there is a continuum between transparency and opacity in phonetic and semantic relatedness, with no clear cut off point (Bauer 1988: 156). In another theory a form of deeply abstract morpheme called an underlier, which can only be reached by internal reconstruction of historical forms is proposed by Lass (1984) and Venneman (1974).

Clitics can be distinguished from affixes in various ways. For example affixes attach to particular preferred lexical categories but for clitics this is irrelevant and they attach to phrases as in: the King of Spain's daughter. Clitics lack lexically conditioned allomorphy: like Child children, seraph seraphim (inflectional affixes) but possessives (which are clitics) doesn't vary (Bauer 1988: 132). To me this seems like comparing apples and oranges.

13.4 Gaeta and Ricca's system for separating compound and phrase

Gaeta and Ricca use what they call a Quadripartite typology to rate concatenations in order to determine their status as compounds of phrases :

a. [+ morphological], [+ lexical] prototypical compound
b. [+ morphological], [- lexical]
c. [- morphological], [+ lexical]
d. [- morphological], [- lexical] prototypical phrase

(Gaeta and Ricca 2009: 38)

the 'lexical' feature [+ lexical] requires a stable referent, unitary meaning, and possibly non negligible frequency of occurrence. In [-lexical] the semantic and referential connections between head and modifier are loose, meaning is entirely compositional, and doesn't REQUIRE storage in the lexicon. [+ morphological] means the unit is formed via some morphological procedure or 'template' which differs from the syntactic patterns of the language, and the feature [-morphological] that the unit is purely syntactically built, and the sequence of items is freely interruptible (Gaeta and Ricca 2009: 39).

13.5 The generation of words in Distributive Morphology

In the principles and parameters grammar paradigm adopted by Halle and Marantz (Halle and Marantz: 114), there are 5 levels Deep Structure, Syntactic Structure, Logical Form, Morphological Structure and Phonological Form. Each level has its own tree and bracketing structures and there is no one to one correspondence between trees from different levels. The solution to this lack of match is either affixless morphology or DM (Halle and Marantz (113-120)). In other words DM explains the mismatches by not taking input from a lexicon only once, but three times, from three different lexica, and Affixless by doing away with affixes.

Distributed morphology has no unified lexicon, instead three 'lists' which distribute the function of the old unified lexicon, they are named the lexicon, the vocabulary and the encyclopedia (Marantz 97:2-3). Marantz's three lists can be read as stages in word formation which is syntactic and post-syntactic, not lexical (Halle and Marantz 166) (Marantz 97:2-3).

Lexicon

The first list in the process is the lexicon. It generates, in free combination, by contributing items which are a subset of the Lexicon, to the computation process. These items are more abstract than usually conceived, pre-realization, without phonological content, atomic bundles of grammatical features, determined by Universal Grammar (Halle and Marantz 122), and some widespread yet language particular principles and atomic roots. In a previous chapter Wierzbicka's arguments on such atoms of meaning were criticized and I'm sceptical about such a lexicon. The feature bundles or atoms interact input to syntax in that the features specify structural relations, which are satisfied via the operation of the traditional syntactic operations, such as Merge, Move or Agree.

The encyclopedia and logical form

The output of syntactic operations at logical form, intereacts with the encyclopedia. The encyclopedia is non generative, and lists the special meanings of particular roots, within local domains relative to syntactic context, allowing it to interperet the semantics of terminal nodes. Any non-compositional and idiosyncratic meaning associated with the bundles of features and lexical roots present at the end of the syntactic computation is assigned at this stage.

The syntax and morphology

The syntax prepackages morpheme bundles, once all relations specified by the features are satisfied, the syntactic derivation is complete; and there is a configuration of terminal nodes without phonological content. Certain morphological operations apply, such as morphological merger, fusion, fission, impoverishment, lowering and local dislocation[1] before any assignment of phonological content to the terminal nodes.(Marantz 1997:5) This Addition of other morphemes at MS is dependent on syntactic structure. (Halle and Marantz 140).

The vocabulary list

The vocabulary is non generative. its entries have a set of phonological as well as morphosyntactic / semantic features. underspecified phonological realizations of morphemes (Halle and Marantz 122). In readiness for vocabulary input there is by now a string of terminal nodes which are all subject to vocabulary insertion whatever their origin.

The morphemes in the the terminal string of syntax specify sets of grammatical features. A vocabulary item is inserted into the morpheme if it contains all or a subset of the specified features the Subset Principle (Halle and Marantz 163, 122), but not if it contains other features.The competition for insertion at the terminal nodes of syntax, gives priority to the most highly specified non conflicting items, and the most regular form comes last, similar to Optimality Theory. The features are packages with roots of course, before realization. Phonology only 'sees' the root when its joined to a functional category (Halle and Marantz 168), and then copy its phonological and other idiosyncratic features into the morpheme (Halle and Marantz 1993:120). The phonological realization in vocabulary is underspecified so allomorphy is added by suppletion or conditioning.

The involvement of the encyclopedia

The encyclopedia inputs after these (Marantz 1997: 3)(Halle and Marantz 1993: 6) so it appears to input into LF and after realization.

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[1] **wiki on operations**

Morphological Merger: *At any level of syntactic analysis (d-structure, s-structure, phonological structure), a relation between X and Y may be replaced by (expressed by) the affixation of the lexical head of X to the lexical head of Y. Two syntactic nodes can undergo Morphological Merger subject to morphophonological well-formedness conditions.*

Fusion *Two nodes that have undergone Morphological Merger or that have been adjoined through syntactic head movement can undergo Fusion, yielding one single node for Vocabulary insertion.*

Fission *splits one terminal node into two before vocabulary insertion. If a vocabulary item is insterted and discharges its features from the terminal node, it may leave some behind which may be discharged by other vocabulary items.*

Impoverishment *reduces the set of features on a terminal node before vocabulary insertion blocking the more specific items from insertion, in its most extreme form leading to zeros.*

Lowering *Lowering operates on abstract feature bundles between syntax and phonological insertion when a head lowers to the head of its comlement, accounting for english tense being realized as a verbal suffix. Even an intervening adverb does not block this, as lowering is sensitive to headedness, not adjacency. But in the case of negation which dominates the verb, merging with tense will be blocked and precipitate do insertion, to take the tense.*

Local Dislocation *Embick and Noyer (2001) suggest it is possible to reorder linearly adjacent vocabulary items after Vocabulary insertion, respecting the relationship between the constituents, to reorder two linearly adjacent elements, such as John is smart**er** than Mary, which contrasts with John is **more** intelligent than Mary, based on phonological features in this case.*

13.6 critique of Marantz

An example of deceptive argumentation
Marantz : Recall that the claim of Lexicalism is the claim of special status for word-sized units, i.e., that the same units that serve as the basic elements of syntactic composition also serve as the domain for something else. In this section, we reject the proposed correlation of word units with a variety of possible "elses": special sound, special meaning, or special structure/meaning correspondences.

"Under these assumptions, Lexicalism claims that Words are Lexical Items, i.e., that some unit of phonological importance corresponds to the basic unit of syntactic composition".

Marantz expresses his assumptions about their assumptions, as if they were logical premises, like if a=b and a= c and b=d then c=d. However he disregards that to get from c to d across all the interconnections in the premises there is a minefield of ambivalence and vagueness.

Premises:

IF

a …. b

a …….. c

b ……. d

extension

THEN: c…… d

But we have to go back via what makes b and c equivalent namely **a**,

a is very disputed, and contextually varied in its theoretical use, therefore two **a**'s may not be equivalent in any two theories, and we are more likely to have two different a's **a** and **A** in the premises

A …. b

a …….. c

b ……. d

nonetheless he asks us to equate them and assume **a = A**

So that we can move from:

b ……>d

when once again **b** is the most highly disputed element in the whole chain and varies from theory to theory, as the existence of **a/A** does. His equivalence does not hold up

under scrutiny, it is too extended and flimsy, with too many weak links

Marantz's argumentative slight of hand is that he makes his chain of logic appear much more simple than it really is, as a one step equivalence (a=b=c=d) rather than a five step one, which it is, firstly…. and he leaves out the diversity of a/A and b/B. a classical logical error, I'd even risk saying a 'deceptive' one.

Another example of argumentative slight of hand

Marantz: Whether all structural combination of morphemes are interpreted regularly, no one has shown that words have special structure/meaning correspondences in some sense that phrasal idioms don't. That is, I would like to insist that neither phrasal idioms nor derived words have special structure/meaning correspondences.

Argument is : no one has shown that A is X and B is not X, so I'd like to insist that A and B are not X

Marantz's (1997) writing is riddled with these kinds of logical flaws, and in addition he is so minutely involved with his arguments against Anderson that I found the argumentative thread to fractured, almost incoherent. However, I hope that a solid background in morphology, which as I explained in the introduction, I do not have, would background these inconsistencies and foreground the innovative theoretical aspects of Marantz (1997).

Typology: Critique of Aikenvald and Sapir and comment on Bauer

Aikenvald

Aikenvald feels that what is failing is a lack of exactitude, and is rigorous about the use of terminology when criticizing other authors for not making fine enough typological distinctions. He attempts to harden up the categories by representing them in graphic form, reducing the 6 types tabulated below to 'quantitative' continua. But marriage of this schema with real quantitative measurement is not addressed. Based on the categories he uses in his graphic, and on his definitions, and on logical assumptions from his definitions, I tabulated the parameters that form his typological categories:

	Isolat	Agglut	Fusio	Anal	Synth	polysynth
DEFINITIONAL + LOCICAL IMPLICATIONS						
1word:1morph	1			1		
1sense:1morph	1	1		1		
invariant shape	1	1				
morph boundary	1	1	0	1		
bound morphemes	0	1	1	0	many	many +
many morphs:word		1	1		1	1
fused morhps:word			1			
	Isolat	Agglut	Fusio	Anal	Synth	polysynth

From the table one sees that not one category has unique traits, except fusion. There is nothing to distinguish synthetic from polysynthetic languages except a matter of degree of synthesis, vaguely expressed in the verbal description, and there is nothing

to distinguish analytical and isolating languages. It is only via the traits that cluster with language types, due to their explicitness, that one can begin to label a language with clear characteristics, but the six typological categories are not what would be used. As Aikenvald makes clear, these traits 'cluster' with typologies, they are not necessarily connected, so identifying them in a language does not lead one to a conclusion on typology.
Some traits clustering in polysynthetic languages (Aikhenvald 2007: 5-6) are pronominal cross referencing of subjects, objects, and other arguments on the verb, integration of locational, instrumental and other adverbial elements into the verb complex as bound morphemes, and many possible affixal slots, just a few of them obligatory, within a verbal word, which could apply to Nama, the other (more than half) polysynthetic traits are either determined by un-measurable degrees of intensity such as 'many affixes' or they clearly don't apply to Nama.

The categories appear to be so fuzzy they are not of much use in any practical descriptive sense for describing real languages. Nama appears to have fusion in pronouns, as person, number and gender morphemes do not have clear boundaries, to be polysynthetic in cross-referencing pronominal arguments on the verb, as well as affixing adverbial elements onto the verb, and having many affixal slots. It appears to be isolating in its tense and aspect particles, with their invariant shape, and agglutinating in its invariant affixes for verbalization etc. Nichols (1986) (cited in Aikenvald 2007:5-6) says there are no polysynthetic nouns, but Nama appears to have nouns.

Relativizing the failure to capture real examples by saying typology distinctions are a continuum not a dichotomy, and trying to turn description mathematical without offering any possibility of calculating where exactly a language lies on any of the continua, does not seem very useful. The only quantitative lifeline that is thrown out, and dismissed again, is to divide the number of morphemes in a sentence by the number of words. This is one dimensional, compared to what typology aims to explain. It is not going to differentiate a language according to the six categories. The entire system appears to need re-evaluation and revision.

Sapir
Yet the allure of typology is that it is a grand narrative that attempts to explain the resonances across languages, that can indeed be observed. What would be needed would be statistical measures of the tendencies of languages that Aikenvald calls traits being compared across hundreds of languages. Hopefully this will sort the facts from the projections, some of which may evidence hierarchical categorization of languages, such as Sapir's typology using terms like 'concrete', and 'relational' summarized in a table connecting the ability to express concepts in a language and its 'technique' and 'synthesis' types (Sapir 1949: 142-143). The terminology seems derived from Piaget's (1992) cognitive development paradigm (the sensorimotor, pre-operational, concrete operational, relational), thus connoting an early stage in the cognitive development of children, despite Sapir's protestations against language theory that is racialized by proposing languages to be heritable, or the naïve connection of race and language, he is classifying languages themselves (which he seems to think permissible as this is supposedly disconnected from classifying adult people thus) into a developmental hierarchy.

Bauer
One attempt at measuring morphological types has been to calculate morphemes per morph and per word. Bauer tabulates these two measures against each other. Unsurprisingly the measurement is extremely vague "not absolute but tendencies". Isolating types have 'low' morpheme to morph and low morpheme to word ratios. Agglutinative are high per word and low per morph. Fusional are mixed per word and high per morph, and polysynthetic types cannot be accommodated as it is distinguished by semantics, although the morpheme to word ratio distinguishes them from isolating languages (figure of 1.06 to 3.72). The morpheme to morph ratio is much flatter (1.00 and 1.58) due to the rarity of cumulation even in fusional languages (Bauer 1988: 234, 235).

14 Lancastrian Monarch's promotion of English as a national language
Henry IV
Henry V
Henry VI

Henry IV

WIKI …HENRY IV
henry iv made a public address in English
defended against 6 rebellions, Welsh, Scottish rumours of survival of Richard III,

Henry V

WIKI …HENRY V
peaceful reign at home
henry v promoted its use starting in 1417 August in government writing, anecdotal evidence that previous monarchs **understood some** English but didn't write in it
historum.com/medieval…
his reign marks the appearance of chancery standard English
and adaption as language of record in government 1st king to use it in personal correspondence since 1066 (350y) till 1408 – welsh revolt (under Henry iv)
Wikipedia
Henry v almost overthrows France,
1415 campaign Harfleur, Calais, Agincourt, Poitiers.
Aim to recover French possessionshe felt belong to English crown command of the sea by driving Genoese (French allies) out of channel
1417 – campaign Normandy, rouen, paris, very cruel executes prisoners and lets their women starve, he plays off burgundians against armagnacs.
1419 – Rouen falls, Paris besieged - treaty of Troyes recognize him as heir to French throne
1421 suddenly dies in France of stomach infection @ 36

Henry VI

wiki …henry vi
Also king of France. (Henri II of France) reigned 39 years, Joan was resisting England in 100 years war, wrote letter to Henry 6 over city of Orleans.
So He probably took her prisoner and had her burned as a witch.

This information condensed from:

http://www.royal.gov.uk/historyofthemonarchy/kingsandqueensofengland/thelancastrians/henryvideposed.aspx

http://en.wikipedia.org/wiki/House_of_Lancaster

http://historum.com/european-history/66538-seeking-dummies-guide-brisith-royal-family-terminology.html

The spread of English
Ireland, North America, the Caribbean, West, East, and South Africa, India, Pacific and Atlantic Islands, Australia, New Zealand, the Middle East, Cyprus and Gibraltar, central Asia, Malaysia, Korea, Hong Kong, and Egypt have all at had English leave its influence on them due to having been colonized at some period between 1583 and 1994. s1945 US becomes a superpower
2nd half of 20th C – spread of English due to American domination, in advertising, broadcasting, film, music, travel and safety (airlines) shipping language, education (science, computers) and religious evangelism.

http://en.wikipedia.org/wiki/British_Empire#Plantations_of_Ireland

http://historialenguainglesa.blogspot.com/2013/01/the-spread-of-english-across-globe.html

15 Linguistic Terminology

Ablaut: all other vowel mutation (Bauer 1988: 33) see Umlaut.

Ablaut is a vowel change, characteristic of Indo-European languages, that accompanies a change in grammatical function; for example, *i, a, u* in *sing, sang, sung.* Also called *gradation*.

Acquisition : Language acquisition is the complex process of acquiring the human capacity to perceive, understand and produce language, and communicate. The term is usually applied to first language acquisition in infants.

Acronyms: initial letters of words in phrase AIDS, (Bauer 1988: 46)

Acronym blend :Gestapo (Geheime Staats Polizei), many more in Indonesian, danyon (komandan bataliyon) (Bauer 1988: 33) Mostly military it seems to me.

Affixes :
Circumfixes: for example the Germanic ge---te construction—a discontinuous affix (Bauer 1988: 26)

Infixes : intrude into the middle of a root, here they are both derivational in Chrau and inflexional in Tagalog (Bauer 1988: 26)
Interfixes: have same form as a mixed bag of genitive, plural etc. in German. Only appear between two elements, like compounds (Bauer 1988: 26)
transfixes: only semetic, are discontinuous bases and affixes (Bauer 1988: 26)
reduplication: its often iconic, can be the whole word as in Afrikaans 'amper amper', the front part as in 'susulat' (will write) in Tagalog, the back part as in 'aahuahua' (resemble) in Maori. (Bauer 1988: 26)

affix ordering
The historical patterning of affix ordering
Chomsky and Halle (1968: 116-130) propose an ordering hypothesis, for morphemes: Root > rules for addition of weak boundary (Latinate) affixes > application of stress rules > rules for addition of strong boundary (Germanic) affixes. All inflectional affixes have strong boundaries because they do not alter the stress or segmental parts of the root. This ordering hierarchy of Latinate and Germanic affixes is a result of English's mixed history, but similar differences in ordering are found in other languages with a mixed history such as Dutch, Italian, Japanese etc. (Chomsky and Halle (1968) Aronhoff (1983) and Scalise (1984) cited in (Bauer 2003:174-175).

Agglutination is a process in which complex words are formed by stringing together morphemes, each with a single grammatical or semantic meaning. Languages that use agglutination widely are called agglutinative languages. An example of such a language is Turkish, where for example, the word *evlerinizden*, or "from your houses," consists of the morphemes, *ev-ler-iniz-den* with the meanings *house-plural-your-from*, just like in Hungarian where *házaitokból* means the same and consists of the morphemes*ház-ai-tok-ból*.

Agglutinative languages are often contrasted both with languages in which syntactic structure is expressed solely by means of word order and auxiliary words (*isolating languages*) and with languages in which a single affix typically expresses several syntactic categories and a single category may be expressed by several different affixes (as is the case in *inflectional (fusional) languages*). However, both fusional and isolating languages may use agglutination in the most-often-used constructs, and use agglutination heavily in certain contexts, such as word derivation. This is the case in English, which has an agglutinated plural marker *-(e)s*and derived words such as *shame·less·ness*.

Alternation: variation in phonological realization of a phoneme or morpheme. Each realizations is an alternant, and can be conditioned by phonological, morphological and syntactic environments.

Autosegmental analysis: is based on a form of representation of language in which phonological representations consist of more than one linear sequence of segments; each linear sequence constitutes a separate tier. The co-registration of elements (or autosegments) on one tier with those on another is represented, as are the analysis of segments into distinctive features. Clear examples of the usefulness of autosegmental analysis came in early work from the detailed study of African tone languages, as well as the study of vowel and nasal harmony systems. The derivation of words from consonantal roots in Arabic could be analyzed autosegmentally. As a theory of phonological representation, autosegmental phonology developed a formal account of

ideas that had been sketched in earlier work by several linguists, notably Bernard Bloch (1948), Charles Hockett (1955) and J. R. Firth (1948).

Backformation: removal of a part through folk interpretation, like gruntled. Its like de-derivation. But in time it is invisible, it removes an affix like thing. Who knows that *edit* comes from *editor*. So some deny it synchronic status as a process. But its used for coining. (Bauer 1988: 33)

Binding: a relationship in which an element is bound by an antecedent, meaning in which the both have same referent, eg: *He* helped *himself* to some cake.

Brain and lexicon: Studies have shown that the temporal and parietal lobes in the left hemisphere are particularly relevant for the processing of lexical items.

In corpus linguistics, a **collocation** is a sequence of words or terms that co-occur more often than would be expected by chance. In phraseology, **collocation** is a sub-type of phraseme. An example of a phraseological collocation, as propounded by Michael Halliday,[1] is the expression *strong tea*. While the same meaning could be conveyed by the roughly equivalent **powerful tea*, this expression is considered incorrect by English speakers. Conversely, the corresponding expression for *computer, powerful computers* is preferred over **strong computers*. Phraseological collocations should not be confused with idioms, where meaning is derived, whereas collocations are mostly compositional.

Chaining is the term for meaning being closer to meanings radiating from the centre than to the centre itself

Clipping : shortens a word without changing meaning, binocs (Bauer 1988: 33).

Cognitive frames: metaphors and cultural narratives which have become highly entrenched in our brains, in terms of which, and relative to which, our thoughts and words are defined.

Cognitive linguistics (**CL**) refers to the branch of linguistics that interprets language in terms of the concepts, sometimes universal, sometimes specific to a particular tongue, which underlie its forms. It is thus closely associated with semantics but is distinct from psycholinguistics, which draws upon empirical findings from cognitive psychology in order to explain the mental processes that underlie the acquisition, storage, production and understanding of speech and writing.

Cognitive linguistics is characterized by adherence to three central positions. First, it denies that there is an *autonomous linguistic faculty* in the mind; second, it understands grammar in terms of *conceptualization*; and third, it claims that knowledge of language arises out of *language use*.[1]

Compositionality as used in philosophy, mathematics and language science, is a principle that the meaning of a complex expression is determined by the meanings of its constituent expressions and the rules used to combine them.

In linguistics, a **compound** is a lexeme (less precisely, a word) that consists of more than one stem.

Compounding or **composition** is the process of word formation that creates compound lexemes (the other word-formation process being derivation).

Conjugation is the creation of derived forms of a verb from its principal parts by inflection. Conjugation may be affected by person, number, gender, tense, aspect, mood, voice, or other grammatical categories. Typically the principal parts are the root and / or several modifications of it (stems). All the different forms of the same verb constitute a lexeme, and the canonical form of the verb that is conventionally used to represent that lexeme (as seen in dictionary entries) is called a lemma.

The term *conjugation* is applied only to the inflection of verbs, and not of other parts of speech (inflection ofnouns and adjectives is known as declension). Also it is often restricted to denoting the formation of finite formsof a verb – these may be referred to as *conjugated forms*, as opposed to non-finite forms, such as the infinitive or gerund, which tend not to be marked for most of the grammatical categories.

Conjugation is also the traditional name for a group of verbs that share a similar conjugation pattern in a particular language (a *verb class*). For example, Latin is said to have four conjugations of verbs. This means that any regular Latin verb can be conjugated in any person, number, tense, mood, and voice by knowing which of the four conjugation groups it belongs to, and its principal parts. A verb that does not follow all of the standard conjugation patterns of the language is said to be an irregular verb. The system of all conjugated variants of a particular verb or class of verbs is called a **verb paradigm**; this may be presented in the form of a **conjugation table**.

Cranberry morphs: ter in laughter, cran in cranberry. (Bauer 1988: 46)

Critical discourse analysis (**CDA**) is an interdisciplinary approach to the study of discourse that views language as a form of social practice and focuses on the ways social and political domination are reproduced in text and talk.[1]

In linguistics, **declension** is the inflection of nouns, pronouns, adjectives, and articles to indicate number (at least singular and plural), case (nominative or subjective, genitive or possessive, etc.), and gender. A declension is also a group of nouns that follow a particular pattern of inflection.

In linguistics, **derivation** is the process of forming a new word on the basis of an existing word, e.g. *happiness* and *unhappy* from *happy*, or *determination* from*determine*. It often involves the addition of a morpheme in the form of an affix, such as *-ness*, *un-* and *-ation* in the preceding examples.

Derivation stands in contrast to the process of inflection, which means the formation of grammatical variants of the same word, as with *determine/ determines/ determining/ determined*.

Derivation also describes the process of forming sentences in Syntax

Diachronic and Synchronic perspectives:
Synchronic and diachronic approaches were theorized by Ferdinand de Saussure in his posthumous Course in General Linguistics 1916.
Diachronic : the development and evolution of a language through history
Synchronic : describes language at a specific point in time without historical perspective

Domain-Specific Hypothesis: this hypothesis uses the theory of evolution to posit that certain categories that have an evolutionary advantage over others (such as useful

items like tools) have their specialized and functionally dissociated neural circuits in the brain.

Elide omit a sound when speaking or letters when writing

Elsewhere principle: the application of a more specific rule blocks that of a later more general one (Bauer 1988: 205)

Embodied cognition all aspects of cognition are shaped by aspects of the body. The aspects of cognition include high level mental constructs (such as concepts and categories) and human performance on various cognitive tasks (such as reasoning or judgment). The aspects of the body include the motor system, the perceptual system, the body's interactions with the environment (situatedness) and the ontological assumptions about the world that are built into the body and the brain. The embodied mind thesis is opposed to other theories of cognition such as cognitivism, computationalism, and Cartesian dualism.[1] The idea has roots in Kantand 20th century continental philosophy (such as Merleau-Ponty

Endocentric and **exocentric** constructions. A grammatical construction (e.g. a phrase or compound word) is said to be *endocentric* if it fulfills the same linguistic function as one of its parts, and *exocentric* if it does not.

Entailment is the relationship between two sentences where the truth of one (A) requires the truth of the other (B)

Epenthetic : the addition of a sound to a word, especially the word interior.

Epenthetic consonant: a consonant added to a word that has no historical phonemic basis, just to ease pronunciation, like the second *p* in *pumpkin*, or prounouncing *for instanc*e as *for instants*.

The term **feeding order** is used in phonology and historical linguistics to describe a situation in which rule A creates new contexts in which rule B can apply. It would not have been possible for rule B to apply otherwise.

If we have two rules, rule A which looks like $x \rightarrow y$ and rule B which looks like $y \rightarrow z$, then the following is a feeding order:

1. A: $x \rightarrow y$
2. B: $y \rightarrow z$

The opposite of feeding order, the situation in which rule A destroys a certain context so rule B can no longer apply, is called bleeding order.

In linguistics, **grammaticalization** or **grammatization**, **grammaticization**, is a process of language change by which words representing objects and actions (i.e. nouns and verbs) transform to become grammatical markers (affixes, prepositions, etc.), creating new function words , by separating functions from their original inflectional and bound constructions (i.e. from content words). It is a field of research in historical linguistics.

For an understanding of this process, a distinction needs to be made between lexical items, or content words, which carry specific lexical meaning, and grammatical items, or function words, with little or no lexical meaning, which serve to express

grammatical relationships between the different words within an utterance. Grammaticalization has been defined as "the change whereby lexical terms and constructions come in certain linguistic contexts to serve grammatical functions, and, once grammaticalized, continue to develop new grammatical functions".[1] Simply said, grammaticalization is the process in which a lexical word or a word cluster loses some or all of its lexical meaning and starts to fulfil a more grammatical function. Where grammaticalization takes place, nouns and verbs which carry certain lexical meaning develop over time into grammatical items such as auxiliaries,case markers, inflections and sentence connectives.

Historical linguistics (also called **diachronic linguistics**) has been defined by Nordquist as "one of the two main temporal dimensions of language study introduced by Swiss linguist Ferdinand de Saussure in his *Course in General Linguistics* (1916)". The central focus of historical linguistics is the study of language at different periods in history and as it changes between different periods of history. Historical linguistics is directly compared and distinguished from synchronic linguistics which studies language at a single historical period of time.

A **homophone** is a word that is pronounced the same as another word but differs in meaning, and may differ in spelling. The words may be spelled the same, such as *rose* (flower) and *rose* (past tense of "rise"), or differently, such as *carat*, *caret*, and *carrot*, or *to*, *two*, and *too*. Homophones that are spelled the same are also both homographs and homonyms. Homophones that are spelled differently are also called heterographs. The term "homophone" may also apply to units longer or shorter than words, such as phrases, letters or groups of letters that are pronounced the same as another phrase, letter or group of letters.

Homonymic puns in Chinese: Mandarin Chinese, like many Sinitic varieties, has a significant number of homophonous syllables and words due to its limited phonetic inventory. All languages have homophones, but in Chinese they are especially abundant. The Cihai dictionary lists 149 characters representing the syllable "yì". Many Chinese take great delight in using the large amount of homophones in the language to form puns, and they have become an important component of Chinese culture. In Chinese, homophones are used for a variety of purposes from rhetoric and poetry to advertisement and humor and are also common in Chinese loans of foreign product names and branding more generally.

Incorporation is a phenomenon by which a grammatical category, such as a verb, forms a compound with its direct object (babysit) or adverbialmodifier, while retaining its original syntactic function.

instrument incorporation: *breastfeed*, usually back-formations, as from adjective *breast-fed* and noun *babysitter* respectively. Incorporation and compounding may be fuzzy categories: consider *backstabbing*, *name-calling*, *axe murder*.

Noun incorporation usually deletes one of the arguments of the verb, and in some languages this is shown explicitly with transition from transitive to intransitive.

Incorporation can in its turn change into other constructions, such as denominal derivation, (Mattisen 2006, Mithun 2009)

Inflection is the modification of a word to express different grammatical categories such as tense, mood, voice, aspect, person, number, gender and case. The

inflection of verbs is also called *conjugation*, and the inflection of nouns, adjectives and pronouns is also called *declension*.

An inflection expresses one or more grammatical categories with a prefix, suffix or infix, or another internal modification such as a vowel change. The inflected form of a word often contains both a free morpheme (a unit of meaning which can stand by itself as a word), and abound morpheme (a unit of meaning which cannot stand alone as a word).

International scientific vocabulary (ISV) comprises scientific and specialized words whose language of origin may or may not be certain, but which are in current use in several modern languages. The name "International Scientific Vocabulary" was first used by Philip Gove in Webster's Third New International Dictionary (1961).[1] As noted by Crystal,[2] science is an especially productive field for new coinages.

Lexical base is a base to which affixes will be added. Stem is a more precise term, it's the form on which the *inflection* will be added. (Bauer 1988: 202)

Lexical field theory, or *word-field theory*, was introduced on March 12, 1931 by the German linguist Jost Trier. Trier argued that words acquired their meaning through their relationships to other words within the same word-field. An extension of the sense of one word narrows the meaning of neighbouring words, with the words in a field fitting neatly together like a mosaic. If a single word undergoes a semantic change, then the whole structure of the lexical field changes.

Lexicology is the part of linguistics which studies *words*. This may include their nature and function as symbols[1] theirmeaning, the relationship of their meaning to epistemology in general, and the rules of their composition from smaller elements (morphemes such as the English -ed marker for past or un- for negation; and phonemes as basic sound units). Lexicology also involves relations between words, which may involve semantics (for example, *love* vs.*affection*), derivation (for example, *fathom* vs. *unfathomably*), usage and sociolinguistic distinctions (for example, *flesh*vs. *meat*), and any other issues involved in analyzing the whole lexicon of a language(s).

lexicalist hypothesis : transformations (syntactical operations) cannot be used to insert, delete, permute or substitute subparts of words, but can only act on syntactic constituents (whole words in the case of English)
weak lexicalist hypothesis: transformations cannot be used in derivational morphology
strong lexicalist hypothesis: transformations cannot be used in derivational OR inflectional morphology

Lexicalization is the process of adding words, set phrases, or word patterns to a language – that is, of adding items to a language's lexicon. This may be simple, for example borrowing a word from another language, or more involved, as in loan translation. Particularly interesting from the perspective of historical linguistics is the process by which *ad hoc* phrases become set in the language, and eventually become new words. (See lexicon for details.) Lexicalization contrasts with grammaticalization, and the relationship between the two processes is subject to some debate.

In psycholinguistics, lexicalization is the process of going from meaning to sound in speech production. The most widely accepted

model, speech production, in which an underlying concept is converted into a word, is at least a two-stage process. First, the semantic form (which is specified for meaning) is converted into a lemma, which is an abstract form specified for semantic and syntactic information (how a word can be used in a sentence), but not for phonological information (how a word is pronounced). The next stage is the lexeme, which is phonologically specified.[1] Some recent work has challenged this model, suggesting for example that there is no lemma stage, and that syntactic information is retrieved in the semantic and phonological stages.[2]

Practical **lexicography** is the art or craft of compiling, writing and editing dictionaries Theoretical **lexicography** is the scholarly discipline of analyzing and describing the semantic, syntagmatic and paradigmatic relationships within the lexicon (vocabulary) of a language

Linguistics is the scientific study of language. There are broadly three aspects to the study, which include language form, language meaning, and language in context. The earliest known activities in the description of language have been attributed to Pāṇini around 500 BCE, with his analysis of Sanskrit in *Ashtadhyayi*.[4]

In linguistics, **meaning** is what the source or sender expresses, communicates, or conveys in their message to the observer or receiver, and what the receiver infers from the current context

The **mental lexicon** is defined as a mental dictionary that contains information regarding a word's meaning, pronunciation, syntactic characteristics, and so on. [1] Although this definition has been challenged over the years, this remains the most consistent definition of the term.

A **metaphor** is a uniquely effective and memorable form of language. The definition is simply the use of words to apply a symbol or thought to a subject which would not ordinarily be paired. Metaphors allow a word or phrase within a sentence to symbolize something else. For instance, the phrase "food for thought" does not imply that you must eat to think, but that an idea or concept could be used to energize other thoughts on the matter. There are 15 types of metaphors, each harboring its own linguistic treasure.

A **metaphor** is a figure of speech that describes a subject by asserting that it is, on some point of comparison, the same as another otherwise unrelated object. Metaphor is a type of analogy and is closely related to other rhetorical figures of speech that achieve their effects via association, comparison or resemblance including allegory, hyperbole, and simile.

Absolute **Metaphor** there is no relation between the subject and the metaphoric word itself. For instance, some people say, "Oh, no! I am toast." Of course, the person does not mean that they have been transformed into hot, dry bread. Rather this is a metaphor for the feeling of being in trouble. Other types of metaphors, non-absolute metaphors, have at least some relation between the subject and the metaphoric vehicle.

Active **Metaphor** often used in poetry and speeches to incite thought. While active metaphors may sometimes be mistaken for absolute metaphors, there is still some relation between the subject and descriptive words. Shakespeare, for example, has a famous active metaphor in "Romeo and Juliet," "Let me compare thee to a summer's day." While the metaphor may not appear directly connected at first, you can see how

this phrase is used to compliment a woman on her warmth and beauty, thereby making the metaphor connected and non-absolute.

Complex **Metaphor** takes a simple metaphor and adds to the complexity of it. Complex metaphors are often used in riddles, because when they are overly complex, it is easy to become confused as to what the intended meaning might be. For example, "He felt the steam rising" is used as a metaphor for growing angry. In this case, "steam" symbolizes the feeling of anger and "rising" represents how that feeling of anger grows. Another example is "throwing light on the situation," where "light" is used to symbolize understanding and "throwing" represents the application of said understanding to the situation at hand.

Compound **Metaphor** often uses adverbs and adjectives to entice the reader or listener. Also known as the loose metaphor, a compound metaphor uses descriptive words in succession. For instance, "The closet was a dark, gaping hole in which the mountain of his shoes had gathered" utilizes a compound metaphor to describe a closet.
Dead, Dormant, and Dying **Metaphors** is so outdated that the meaning has been lost in time. There are many words in the English language that are now considered dead metaphors. On such word is "fabulous," which once meant that whatever subject the word described must be worthy of a story or fable. Now it is used similarly to the word "great." A dormant metaphor is one in which the subject and descriptive word or words are not made clear in relations, such as the phrase, "She seemed rattled." This leads to the questions of "By what? Or whom?" A dying metaphor is one that is being used so much that it is becoming cliche. The original meanings of dying metaphors are in jeopardy of being lost. One example is the phrase, "Setting sail into a new career."

Extended **Metaphor** takes a single subject and uses multiple metaphors to describe it. Extended metaphors are often used in powerful scenes or lines that are meant to be memorable. "This bed is my raft, and I am adrift in the sea of dreams," is one example of an extended metaphor. There is little confusion, but much embellishment.

Implicit **Metaphor** does not identify the subject directly, but is used more in the sense that the subject will be understood by the description. An example of this type of metaphor would be, "Ready to hit the sack!" The implicit metaphor is similar to the dead and dying metaphors, but still lies within the range of common knowledge as far as descriptive subject matter goes.

Mixed **Metaphor** not consistent with itself within the sentence. The statement, "A rolling stone gathers no bird in the hand," is a mixed metaphor in that it takes two metaphors to describe a concept, but leaves room for clarification. Mixed metaphors are often frowned upon in use, since they are not poetic, nor are they very thought provoking.

Pataphor **metaphor** that takes the metaphoric qualities to the edge of clarity. It is an extreme metaphor and is often used to express excitement. One example of a pataphor is, "He galloped into the kitchen, snorted at the food on the table, turned his tail, and ran." The pataphor here describes a boy with the actions of a horse. If the metaphoric

values are taken too far, though, it can be confusing as to whether the subject is actually a boy or an animal.

Simple **Metaphor** has a single subject and direct correlation with the metaphoric description. The simple metaphor is rarely confusing and is used to convey simple ideas. One example of a simple metaphor is, "I'll sleep on it." There is no embellishment to this metaphor; the simple metaphor is straightforward.

Root **Metaphor** is "rooted" into the language. These metaphors are mostly noted by foreigners to the region or language. For example, "Life is a journey," is a root metaphor is often overlooked by English natives. It is, however, still a metaphor.

Submerged and Synechdochic **Metaphor** the metaphoric vehicle is deep in meaning or requires a deeper understanding of the metaphoric meaning. One example of a submerged metaphor is, "He legged it," which really means he ran whatever distance there was. A synechdochic metaphor, on the other hand, is where the singular metaphoric vehicle is used to describe a whole entity or concept. For example, "Nice wheels!" is a compliment to someone's car. These two types of metaphors are similar in application, but different in approach.

Morpheme Andrew Carstairs McCarthy describes the evolution of the term morpheme in the Handbook of word formation. Starting with a ‘beads on a string’ idea of totally compositional morpheme concatenation, a need for a term including allomorphs expanded the concept, and then including phonologically dissimilar allomorphs, took the meaning of the term from applying to a particular phonological realization of meaning, a meaning sound relationship, through various degrees of abstraction to a morpheme that was an abstract piece of grammar, no longer a unitary sign. The understandings of a ‘morpheme’ have evolved towards abstraction, from a conceptualization as sequential and isolatable (Carstairs (2005)), through ‘lexemes’ (Bauer 2003:110,111, 200), to abstract morphemes. The realization of abstract morphemes is a difficult challenge to theory (Bauer 2003: 114), and Anderson has to eliminate and then reinsert morphemes (Halle and Marantz 1993: 112). Explaining how the particular allomorph is chosen in morpheme based theory (Bauer 2003: 118) is likewise difficult. Bauer’s solution is to avoid abstraction, calling -s and –en different, synonymous morphemes (Bauer 2003: 116).
In linguistics,

M**orphology** is the identification, analysis, and description of the structure of a given language's morphemes and other linguistic units, such as root words, affixes, parts of speech, intonations and stresses, or implied context. In contrast,morphological typology is the classification of languages according to their *use* of morphemes, while lexicology is the study of those words forming a language's wordstock.

Nanosyntax Nanosyntax (NS) falls within and seeks when possible to adhere to minimal syntax (MS) principles (Pretorius and Oosthuizen 2012: 444). However, In the NS framework there is no boundary between the internal structure of words and the sentence, and words or lexical items are in fact binary syntactic trees, with ever larger structure, while the terminal nodes become “smaller” (Starke 2009: 1) down to single syntactico-semantic features fed into syntax from a universal set before any engagement with a “lexicon” (Pretorius and Oosthuizen 2012: 435) to build up

morphemes, challenging the assumption that the lexicon feeds into grammar (Pretorius and Oosthuizen 2012: 439), and asserting in its place that universal features feeding into syntax initiates generation. These binary trees are built up until they match items in the lexicon and for insertion (Caha, 2009: 53) cited in (Pretorius and Oosthuizen 2012: 439). The lexical items consist of phonological form, syntactic sub trees and conceptual information (Starke, 2009: 2; Caha, 2009: 53; Taraldsen, 2010b) cited in (Pretorius and Oosthuizen 2012: 439) and this makes the lexicon transparent rather than opaque (Pretorius and Oosthuizen 2012: 439). Lundquist (2008: 35) argues that the view of the lexicon in MS does not account for how the bundles ready for insertion in the lexicon come to exist, but in NS the bundles are built by syntax creating items with generic meaning prior to insertion and then matched to items in the lexicon. Competing lexical entries may 'overspecify' or contain superfluous features not specified by syntax, and these will be ignored during insertion (Ramchand, 2008: 98) cited in (Pretorius and Oosthuizen 2012: 440). It becomes necessary to posit a relaxation of matching requirements so that one item can match many trees. In DM, this condition takes the form of the Subset Principle (Pretorius and Oosthuizen 2012: 440) which NS Caha (2007: 8–31) cited in Pretorius and Oosthuizen (2012: 440) replaces with the superset principle, they claim has greater explanatory power. The Superset Principle, the Elsewhere Condition and the condition on Match, make it possible to spell out nodes. Ramchand (2008) cited in (Pretorius and Oosthuizen 2012: 435), describes the features of verbs expressing causation, change (process) and result. Only process is obligatory, and the presence or absence of these features lead to systematic differences in behavior (Ramchand, 2008: 108). Ramchand believes spellout of non terminal nodes provides an alternative to movement which Caha (2009: 57–63) holds, allows the elimination of operations such as Fission and Fusion in Distributed Morphology (DM). Caha describes a model for understanding case using a universal sequence: *nominative – accusative – genitive – dative – instrumental – comitative*. (Caha, 2009: 10)

Ontogeny (also **ontogenesis** or **morphogenesis**) is the origin and the development of an organism: for example, from the fertilized egg to mature form. In time frame, it can cover the study of an organism's lifespan. The word *ontogeny* comes from the Greek ὄντος, *ontos*, present participle singular of εἶναι, "to be"; and from the suffix -*geny*, which expresses the concept of "mode of production".[1] In more general terms, ontogeny

Ontology is the philosophical study of the nature of *being, becoming, existence*, or *reality*, as well as the basic categories of being and their relations. Traditionally listed as a part of the major branch of philosophy known as metaphysics, ontology deals with questions concerning what entities exist or can be said to exist, and how such entities can be grouped, related within a hierarchy, and subdivided according to similarities and differences. In the broadest sense, ontologists investigate what makes a human human, relying on institutional, social, and technical conventions representing a nexus of intellectual activities.[1]

Optimality theory (OT) is a linguistic model proposing that the observed forms of language areise from the interaction of confliciting constraints. OT differs from other approaches to phonological analysis, such as autosegmental phonology and linear phonology (SPE), which typically use rules rather than constraints. OT models grammars as systems that provide mappings from inputs to outputs; typically, the inputs are conceived of as underlying representations, and the outputs as their surface realizations.

1. GEN takes an input, and generates the list of possible outputs, or candidates,
2. CON provides the criteria, in the form of strictly ordered violable constraints, used to decide between candidates, and
3. EVAL chooses the optimal candidate based on the constraints, and this candidate is the output.

Optimality theory assumes that these components are universal. Differences in grammars reflect different rankings of the universal constraint set, CON. Part oflanguage acquisition can then be described as the process of adjusting the ranking of these constraints.

Optimality theory is a theory that does away with rules, using constraints (Bauer 1988: 218) all utterances break some constraint, but usually a weaker one, the hierarchy being different for each language, an output is selected from among the possible outputs if it breaks the fewest or weakest constraints. Example of consonant onset versus resemblance to root in Arabic (Bauer 1988: 221). The phonological determines the morphological in the selection process. (Bauer 1988: 225)

Organized Unitary Content Hypothesis (OUCH): this hypothesis posits that lexical items that co-occur with high frequency are stored in the same area in the brain.

Paradigmatic and syntagmatic. Meaning arises from the *differences* between signifiers; these differences are of two kinds: *syntagmatic* (concerning positioning) and *paradigmatic* (concerning substitution). Saussure called the latter *associative*relations

In linguistics, **periphrasis** is a device by which grammatical meaning is expressed by one or more free morphemes (typically one or more function words accompanying a content word), instead of by inflectional affixes or derivation.[1] Periphrastic forms are analytic, whereas the absence of periphrasis is a characteristic of synthesis. While periphrasis concerns all categories of syntax, it is most visible with verb catenae. The verb catenae of English are highly periphrastic. The distinction between inflected and periphrastic forms is usually illustrated across distinct languages. However, comparative and superlative forms of adjectives (and adverbs) in English provide a straightforward illustration of the phenomenon

A **portmanteau** morph is a single morph that is analyzed as representing two underlying morphemes Example (French) *au* ‘to (him)’ from *a* ‘to’ + *le* ‘masc. art’

A **polyseme** is a word or phrase with different, but related senses. Since the test for polysemy is the vague concept of relatedness, judgments of polysemy can be difficult to make. Because applying pre-existing words to new situations is a natural process of language change, looking at words' etymology is helpful in determining polysemy but not the only solution; as words become lost in etymology, what once was a useful distinction of meaning may no longer be so. Some apparently unrelated words share a common historical origin, however, so etymology is not an infallible test for polysemy, and dictionary writers also often defer to speakers' intuitions to judge polysemy in cases where it contradicts etymology.

The difference between homonyms and polysemes is subtle. Lexicographers define polysemes within a single dictionary lemma, numbering different meanings, while homonyms are treated in separate lemmata. Semantic shift can separate a polysemous word into separate homonyms. For example, *check* as in "bank check" (or *Cheque*), *check* in chess, and *check* meaning "verification" are considered

homonyms, while they originated as a single word derived from chess in the 14th century.

Prototype theory: A prototype is a category with graded membership, some members being more typical and central to the category than others. In 1970's Eleanor Rosch departed radically from the tradition of Aristotelian logic and the necessary and sufficient conditions of category definition. The example in Rosch is the category bird. Instead of defining a bird, we can create a graded category of elements with unequal status in which a robin is more prototypical than a penguin.

Qualia singular form: **quale** is a term used in philosophy to refer to individual instances of subjective, consciousexperience. The term derives from a Latin word meaning for "what sort" or "what kind". Examples of qualia are the pain of a headache, the taste of wine, or the perceived redness of an evening sky.

Daniel Dennett (b. 1942), American philosopher and cognitive scientist, writes that *qualia* is "an unfamiliar term for something that could not be more familiar to each of us: the ways things seem to us."[1]

Erwin Schrödinger (1887-1961), the famous physicist, had this counter-materialist take:

The sensation of color cannot be accounted for by the physicist's objective picture of light-waves. Could the physiologist account for it, if he had fuller knowledge than he has of the processes in the retina and the nervous processes set up by them in the optical nerve bundles and in the brain? I do not think so.[2]

The importance of qualia in philosophy of mind comes largely from the fact that it is seen as posing a fundamental problem for materialist explanations of the mind-body problem. Much of the debate over their importance hinges on the definition of the term that is used, as various philosophers emphasize or deny the existence of certain features of qualia. As such, the nature and existence of qualia are controversial.

Redundancy rule is a rule in Phonology or Morphology which fills in predictable or redundant information. Redundancy rules have two important properties: (a) they do not create structure, and (b) they do not alter structure. For example: the fact that sonorants in English are always voiced, as opposed to obstruents, can be captured by leaving the feature [voice] unspecified, and fill in [+voice] by a redundancy rule. The idea behind redundancy rules and underspecification is that redundant information can be left unspecified in the grammar (usually the lexicon), and that a grammar which contains less (idiosyncratic) information is more highly valued than a grammar which contains more (every thing else being the same). (Archangeli, D. 1984, Chomsky, N. and Halle, M (1968), Halle, M. (1959), Kiparsky, P. (1982) and Stanley (1967).

A **semantic network**, or **frame network**, is a network which represents semantic relations between concepts. This is often used as a form of knowledge representation. It is a directed or undirected graph consisting ofvertices, which represent concepts, and edges.[1]

In 1909, Charles S. Peirce proposed a graphical notation of nodes and edges called "existential graphs" that he called "the logic of the future". This began the debate between advocates of "logic" and advocates of "semantic networks." This debate obscured the fact that semantics networks, at least those with well-defined semantics, are a form of logic.[2]

Sensory/Functional Hypothesis: this hypothesis posits that the ability to identify (i.e. be able to recognize and name) living things depends on visual information, while the ability to identify non-living things depends on functional information. Thus this hypothesis implies that modality-specific subsystems compose an overarching semantic network of lexical items.

Sound change includes any processes of language change that affect pronunciation **(phonetic change) or sound system structures (phonological change).**

In linguistics and etymology, **suppletion** is traditionally understood as the use of one word as the inflected form of another word when the two words are not cognate. For those learning a language, suppletive forms will be seen as "irregular" or even "highly irregular". The term "suppletion" implies that a gap in the paradigm was filled by a form "supplied" by a different paradigm. Instances of suppletion are overwhelmingly restricted to the most commonly used lexical items in a language.

Subset principle
"The phonological exponent of a vocabulary item is inserted into a morpheme in the terminal string if the item matches all or a subset of the grammatical features specified in the terminal morpheme" (Halle 1997).

Suppletion: word forms of what appear to be the same lexeme are so different from each other that they cannot be derived by general rules. French aller, English go, be, good. Arguments about boundaries of suppletion (Bauer 1988: 46).

Synchronic and Diachronic: see diachronic

Linguistic **typology** is a subfield of linguistics that studies and classifies languages according to their structural and functional features. Its aim is to describe and explain the common properties and the structural diversity of the world's languages.

Umlaut : result of assimilation to a following vowel (even if this has sub-sequently vanished) (Bauer 1988: 33)

Word formation is the creation of a new word. Word formation is sometimes contrasted with semantic change, which is a change in a single word's meaning. The boundary between word formation and semantic change can be difficult to define: a new use of an old word can be seen as a new word derived from an old one and identical to it in form (see conversion).

WORD LISTS WITH TABULATED ANALYSIS

I think this is the full wordlist that is a compilation of all the words extracted from the dictionary by various means compounds and other words
actually I have not got random, 1 apage, that is g, compound sampling

H &E	std. ortho			gloss	parts	gloss of parts
a						
à	{a}			stative aspect marker f. esp. present tense	à	{a}
á	{a}			particle introducing hortative sentences		
ằá	{ā}			yes		
àấ	{ā}		vi	v.i. cry, weep, bawl, howl, pule utter characteristic cry of animal (crow,mew) rumble (of stomach) fig. complain, grumble sl. Bellyache		
áà	{ā}		vt	v.t. drink		
Àà				drink away completely		
áà-àǒb,	{ā-aob}			n. alcoholic, habitual drinker		
áà-àǒs,	{ā-aos}					
áà-àǒ-i	{ā-ao-i}					
àà-ấú	{ā-ao}		vtt	v. tt. Share(o.'s drink/beverage) w. (s.o.), s.a		
áàb áà-i	{āb} {ā-i}		n	n. drink, beverage esp. alcoholic liquor		
ààbằ	{āba}	v.t.		help (s.o.) finish a drink drink i.o. to gain dutch courage for (quarrel)		
àấbằ	{āba}			cry over, cry out of longing for cry out for (cow or calf)		
àấb àấs	{āb} {ās}		n	n. of above		
àấ(bằ)sèn	{ā(ba)sen}		vi	v.i. pity o.s. feel sorry for o.s.		
áàb ǁgàˆùb	{āb ǁgâuab}		n	n. evil of drink		
ààbằsèn	{ābasen}		vi	v.i. drink by o.s.		
áàbề̌s	{ābes}		n	n. drinking cow [allotted by parent f. child's exclusive use] (?Rust '69:9)		
Ấáb !nâ ǂui				'peeping out of the hole' - about to die		
	Aagao			slur speech		
ààgằo	{āgao}		vt	v.t. drink (s.o.) under the table		
ààgằósèn	{āgaosen}		vi	v.i. bec. Enslaved to alcohol		
ààhàwű ààhàpű	{āhapu}		vts	v.t s. !KHÁWÈ		

Ãáis				face – the many other meanings-				
				and far from core - employ morphology				
ààkhằnú	{ākhanu},		vi	v.i.				
ààkhằnù-khànǔsèn	{ākhanu-khanusen}			quench/slake thirst (of human.b./anim.)				
				euphem. Bec. Intoxicated/drunk				
				s.a. ǀHÒRŐ, !GÂˆÙ				
ààkhằnúsǐb	{ākhanusib}	n.		quenching of thirst.				
				drunkenness, intoxication, inebriety,				
ààkhằnúxằ	{ākhanuxa}	a.		given to drunkenness,				
ààkhằˆi	{ākhâi}		vt	v.t. drink dry (e.g. pan, open water),				
aama	{āma}			(pronunc. Ààmàˆà v.t. (go on)				
				pub crawl, drink at various places,				
aamaagu	{āmāgu }			(pronunc. ààmàˆàgù) v.t. drink				
				(s.th.) by turns (fr. One vessel)				
ààmáˆá	{āmâ}		vi	v.i. fig no longer drink (habitually)				
áà-ồm̃s	{ā-oms}			n	n. shebeen			
áàrò-i	{āro-i}			n	n. drink,			have a drink
àắrì	{āri}				v.t. bewail/lament (deceased)			
áàs	{ās}			n	n. drink, beverage, non alcoholic			
áàsằ	{ āsa }	a.			drinkable, potable			
					of wh. Some h.b. drunk, wh. H.b. drunk of			milk of wh. Some h.b. drunk
ààsǐ	{āsi}		vt	v.t water (animal), feed ligquid to (child/invalid)				
ààtőá	{ātoa}		vt	v.t finish drinking (of: esp. anim.)				
áà(tsàˆà)xằ	{ā(tsâ)xa}		a	a. inclined/given to drink (especially alcohol)				
àắ(tsàˆà)xằ	{ā(tsâ)xa}		a	a. disposed to cry, over sensitive	ā		cry, drink	
					tsā		try for	
					xa		affix >adj.	
àắxằrìxằ	{āxarixa }		a	a. inclined to whimper/whine (of: child)	ā		cry, drink	
					xarixa		splashed on/wiped off the face	
Áàxùǔb-i	{āxūb-i}		n	n. in general beverage				
Áàxùǔn (di) ǁàmàxùǘǁgàˆǔs	{āxūn ǁamaxū aùǘǁgâus}		n	n. bottle store, off sales.				
	āǀgara		vt	prevent s. o. from drinking	ǀgara	vt	hamper, hinder, impede	
					ā		drink	
àắǁòm̀ǁòm̃sèn	{āǁom-ǁomsen}		vi	v.i. to cry o.s. to sleep	ǁom		fall asleep	
					ǁomǁom		continuous aspect	

àǻ!gáˆás	{ā!gâs}	n	n. fourth reed flute in six or 3rd in set of 4	ā	cry, drink
				!gā	listen to closely
àǻ‡ǔí	{ā‡ui}	vt	v.t. cry loudly/freely	ǂui	peep through an opening/window
				ǂui	verbal suffix meaning óut
àǻ‡ǔísèn	ā‡uisen	vi	v. relieve o.s distess by weeping until calm		ā
					sen
					ǂui
					ǂui
	A ba (ra) ma		accept marriage proposal		
àì			stammer stutter, speak indistinctly, omit clicks		
Ai	{ai}		postposition - on top of, on basis of.		
			In compounding has myriad meanings		
	ai		bound root, meaning face, infront, etc		
	aib/ais		face, surface,frontside, leading position		
Ǻì àõsènni			sweat from the face	ai	bound root, meaning face, infront, etc
				aosen –	sweat
				ao	v.. Toss
				sen	reflexive suffix
				i	3 p, neut, sing/causative-agentive v. suffix
	aibekam		previous	ai	first in time, surface, face, in front, fore-, pre-
				be	v. weigh, disappear,
				kam	vt sip, n. comb
				kamab	n. specific time of day
Ǻí ìísib			picture / facial complexion	ī	stative, look, appear, seem
				si	abstract Noun suffix (ness, hood, ity)
				b	nominal suffix masc
Ǻí khóőb			foreskin, prepuce	khōb	N. skin of animal
				khō	x. (bound) of leather, and work with skins
ǻímù ǜ!gárù			prognosticate	mu	see
				u	? No known prefix or grammatical element
				ˇ!gárù	scatter, be incoherent, talk deliriously
ǻís !khǻáb			front side, face, facing,	!khāb/s	1 body (SOROB)
					2 side, direction
					3 surface
ǻís ǂàmà			lie face downwards	ǂàmà	pp about, brag
				s	fem suffix nominalizing
ǻí!!gàùs			example, illustration	ǻí!!gàù	productive v. root - demonstrate

			´ǁgau	construct with thorn bushes
			s	fem suffix nominalizing
ǎí !ǒrábɛ̀b		inner incisor (also called central)2 front teeth	!orabep	tick (zool)
			!ora	pluck, pick, fruit/ticks one by one
			be	polysemic suffix (adv ?)
			b/p	nom suffix (masc)
ǎí !ùǔb	ai !ūb	cannon of fore leg	!ūb	shin bone/tibia of human being, canon of hoofed animal
			!ū	v.i. wilt wither, whine, howl
			!ū	v.t approach threateningly, step over, graze
			b	nominalizing masculine suffix
ǎí !ùǔs	ai !ūs	carpal section of front leg	!ūs	forehead ???
ǎí‡àm̃mɛ̀b		topsoil	ǂammeb	not in HE dictionary
			ǂam	v.t. de-bark a tree, a. lower, a. elitist
			e	suffix denoting vocative
			b	nominaliziing suffix masculine
ǎí‡hòmì		prepare, get ready	ǂhomi	prepare, make ready
			ǂhomisen	ready to use
ǎí‡hàrùbɛ̀		ǂharub	palate	
ǎí‡khàrùbɛ̀		prepalatal	ǎí‡khàrùb	prepalate
			ǂkharub	palate
			bɛ̀	adjectivizing suffix
ǎí‡khúrùb		central vein on forehead	ǎí	frontal
			ǂkhurub	vein
	ai‡nau	hit first	ǂnau	beat, throb, palpitate, hit ,flog
Ǎms		mouth – the many other meanings accomplished with word combos and morphology		
	am!nas	share portion, wage	am	right, right handed, roast,
			ams	mouth,
			am	bound morph in entitlement /contract words
			!nas	cannot find,
			!nās	n. turn, chance, opportunity.
			!nā	v.t. exceed, increase, multiply
			!nā(XX)	too many roots start with this,
Ànǎ		cover – many many meanings		
Áò		throw lightly		
Áòb		a man		

		ao!khuni	vt	toss into upside down position	ao		throw lightly, toss
					!khuni		turn back, alter, convert to other religion
		ao!nā	vt	be joined by outsiders	!nā		v.t. exceed, increase, multiply
	àrấ àwấ			ringcut, ringbark, turn (on lathe)			
				obs. vomit (of child)			
	áràs			nodal ring (of reed/grass etc.)			
	ấrá-àrà	{ara-ara}		grizzle, cry fretfully			
	ấráxấrá	{araxara}		(w. hâ) be stark naked (hence embarrassing) s.a.			
				(w. hâ) be embarrassing by repeating			
				blasphemous words of s.o.			
	Àű			bitter			
	Ấú			share in / bring up raise – morph additions			
	Àűdos			several motor items with			
				word combo and morph			
	àwấs àpấs	{apas}		calabash, gourd			
	áwà ápà	{apa}		carry on one's back, especially child			
	àwế			become humid, wet, clammy			
	àwĩ			arch. Annoy			
	àwò			dent, batter			
b							
		bōsa!nâ	a	with a few holes in	bō	a	holey
					sa	suf	adj. forming suffix (gloss as -able)
					!nâ	v	shine, among, call for help,
							apply force to lever
d							
	Dàà			to step or tread ,			
		dā-apo	vt	dent by treading on	dā	v	step, tread
					apo		can't find
					awo/abo	vi	vi dent
	Dàná			main, principle, head			
		danadanab	n	supreme head	danas	n	n. head
					dana + N	x	bound suffix = head, lead-, main, chief
					dana + V	x	lead, walk in front
					b	suf	nominalizing suffix masculine
		danikās	n	beehive	danib	n	honey
					kās	n	n. loss, disappearance
		danilās		empty honeycomb, beeswax,	danib		honey

			literaly: honey town			
			s.a. ǂgoab, ǂnaob	dani		n. bound noun root
				!ās		town
				ǀās		town
				ǀā		squeeze, press
				!ā		stretch, spread out
				s		nominalizing suffix fem
Dȁò			burn, cook, boil			
Dȁòb			path			
	dâuǁgôaxa	vi	flow down towards speaker	dâo	v	vi flow, stream
				ǁgôa	v	vi descend, go down
				ǁgoa	vt	v.t. threaten
				ǁgoa	n	n. dawn
				xa	suf	ventive verbal extensio, towards speaker
	dīdawa-am	v	return favor like for like	dī	v	vt transact, execute, treat
				dawa	v	v. t . Turn around, invert
				am	a	a. right handed, right, v. roast
				am	x	x. (bound) - in ams (mouth) contractual sense
Dȉí			transact, practice treat, lots			
Dìì			ask examine lots			
	doe-gauru	vi	in the process of trekking	doe	v	move, trek, swarm
				gauru	v	vt be on the way
	dom!nâb	n	inside of throat	dommi	n	throat, voice
				dom	x	x. (bound) of throat, voice, manners
				!nâb	n	n. light, visible radiation
				!nâ	vt	vt shine
dȍè- òm̃mi		n	ship, vessel	doe	vt	to move house, trek, migrate
				Dȁà	vt	to step or tread ,
				Dȁòb	n	path
				Dȁò	vt	burn, cook, boil
				ommi	n	house of extraordinary size, mansion, large nest
				om	v	to build, construct
				mi	suf	nominalizing suffix mass nouns
f						
	farkhespeki	n	bacon	farkheb	n	pig (Afrikaans)

				speki	n	bacon (Afrikaans)
g	gādā	v	outwit	gā	vt	fool, trick
				dā	v	step, tread
	gari!apa		roll up onto	gari	vt	vt roll
				!apa/!awa	vi	vi climb onto, board
				!apa/!awa	vt	vts to schratch something across the eyes
				!ā	vt	vt look out for something with shaded eyes
					vt	vt hang out laundry, stretch out in sun
						other compounds = loftiness,
						firmament, space
	gowaǂans	n	linguistic term	gowa	vi	vi argue, vt preech
				ǂans	vt	vt knowledge/awareness
				ǂan		to know
gúbiri		v	expel/force/ drive goats / motivate			
	gui	v	animal wriggle/ crowds move			
gúi		v	lift			
	gumo/gum/go	aj	big man / a lot / come and go			
gúnis		n	wagon			
	guni	v	stalk, spy on/ animosity, harrassment			
	guni	v	bother			
			be enemy of			
	gunŭ	v	scratch eye/ear/ rotting/ buttons			
gunù		v	rot			
gúnubes		n	button			
gúri		v	gnaw, con someone			
	gurib	n	year, unity			
	gurigorobe	aj	yearly			
	gurigu	v	unite			
	gurigus	n	association			
	gurisab	n	comrade/assoc.			
	guriχa	aj	year old			
gúru		v	make, build/ building, creation,			
			master builder, creature			
gúru-aob		n	master builder			
gúrus		n	creation			
gúrusa		aj	buildable			

gúrusabeb		n	created			
gúrusaben		n	creature			
gúruχa		aj	creative ?			
	gūre aob	n	shepherd	gūb/s	n	sheep
				gūre	vt	vt look for sheep
				gū	x	x. (bound) of sheep
				aob	n	man
	gúwi	v	chase away / beating up someone, eating up			
	gŭwu	v	beat up			
		v	eat up ?			

h

hǎˆà	{hâ}		aspect marker denoting completed perfective aspect			
hàˆǎ	{hâ}		stat be present/there, be (in/at a place, exist, be reality			
háˆá	{hâ}		stay, remain, stay on/behind, remain behind, live/dwell (temporarily)			
hàˆǎ-óà	{hâ-oa}		stay, remain behind, stay away	hàˆǎ		stat be present/there, be (in/at a place, exist, be reality
				háˆá		stay, remain, stay on/behind, remain behind, live/dwell (temporarily)
				óà	vi	v.i. return, go back, posterior
hàˆǎ-óàxùű	{hâ-oaxū}		stay behind (contrary to original intention)	xúù		bound root: entity, things, pp- away from
hàˆǎ-óàxùű	{hâ-oaxū}		leave (s.o.) by staying behind			
háˆá(tsàˆà)xà	{hâ(tsâ)xâ}		a. inclined to stay, remain behind/at home.	tsǎà	vt	v.t. Lick
				tsǎá	vi	v. i. glow (of coals)
				tsaa	aux	aux v. : try to
				xa	suf	adj. derivation/ towards speaker verb derivation
	haba aob	n	person who mixes	hawa	vt	vt to mix
				aob	n	man
hàḿtḯkőó‖ìî			position (of sequence) ? – in which	‖ìî	vt	vt tie up tight
				‖ìˆì	n	confidence, and arrogance,
	harahara	v	widen, enlarge	hara	a	spacious
	hōnahaba	vi	be interbred with lap dog	hōnab	n	n. small animal breed

				hōna	n	same sens, -b deleted
				hawa	vt	vt to mix
				hā	vt	vt come, arrive, bring along
				ba	suf	
	hō-oa	vt	to recover, get back	hō	vt	vt obtain, receive
				oa	vi	vi return, bo back
i	îbagumîs		mathematical relation	î	vi	vi stat. look, appear, seem
				î	vi	vi pass
				î	+'	bound morpheme -superlative
				îb	n	father (our)
				ba	v+	v+ applicative extension
				gumîs		can't find
				guni	vt	vt kill or bully
				gu	v+	v+ reciprocal verbal extension- each other
				mî	vt	vt say, speak ill of
				s		
k						
	kaikharob	n	double bed	kai	a	big, great
				kharob	n	bed
				kharo	vt	vt clear resting place
	khākhoeb	n	enemy	khāb	n	warfare
				khā	vtt	vtt obs. Marriage payment
				khā	x	x. bound morpheme = of enmity
	khakha		make choking sound of jackal being smoked out			
	khâima	vi	get up frequently, because restless	khâi	vi	vi. rise, stand, get up
				ma	pp	bound postposition 'about' as in move about
				mā	vt	vt give, volunteer, ready, surrender
	khau!khūs	v	incinerate	khau	vi	vi burn
	khobodī	vt	enslave	khowob	n	n. slave
				khobo-	x	bound morph 'slave'-
				dī	vt	vt transact
				dī	vtt	vtt ask, question
	khoesi !gôasib	n	human dignity	khoeb	n	person
				khoe	x	bound root - human
				si	suf	deriv suffix > adj

				!gôa	v	count reckon calculate
				!goa	v	regain consciousness, crack whip, form hollow
				si	suf	polysemic suffix >dem. Adv > adj
				b	suf	nominalizing suffix masculine
	khoesi‡ūsi	a	customary to mankind, human	‡ūsisaos	n	n. character trait
				‡ū	n	blunt object, without manners person
				si	suff	polysemic suffix >dem. Adv > adj
	khôa!am	vt	to break to the last piece	khôa	vt	vt break, fracture, quarry
				!am	vi	two, deflate, vi come to end of accurate shot, shatter, snort
	khū		a. hump-backed			
	khū		vt inflate			
	khū		v.i become bloated			
	kōdao	vt	determine direction of trail or road	kō	vt	vt have eyes open, measure
				dao	x	x. bound morpheme, daob = road, in other C's=door, gate, step
	kōri-aob	n	person who watches constantly	kōri	vt	vt stare, gape
				ri		cannot find
				re	suf	deriv. suffix >verb, >adj
	kuni audob	n	heavy truck	kuni	vt	v.t. rub
				kunis	n	n. wagon
				audob	n	vehicle
	kuru-unu	vt	rebuild, modify	kuru	vt	vt construct, manufacture, make
				unu	vt	vt change, alter course
	!khūs		(cannot find)			
	!khū	vi	vi become rich			
	!khū	vt	vt pound, crush, shoot at indiscriminately			
	!khū	vi	vi come up (fog) vt cover(fire, food, deceased)			

m

mấˆá	v	Come to standstill, stop (v)		
màˆàtíkőó		How many, how much	ti		can't find
		?	kō		vt have eyes open, measure
		?	màˆà		which, what ?
màˆàtíkőó‖ìî		position (of sequence) ? – in which	‖ìî		vt tie up tight
màˆấ!gằì		Hold strong (mil) position,	!gằì	vt	Spread a blanket, Make a bed (v.t.)

			stand firm On decision, persist, have rigid stds.			
màǎǀgàì			Compound = lit. stop-make bed	mā ǀgàì		vt give, volunteer, ready, surrender
	mā‖nāsens	v	surrender, submission, compliance	mā	vt	vt give, volunteer, ready, surrender
				‖nā	vt	v.t. leave alone, fall in battle, drop out
				‖nā	a	adv indicative, distant
				sen	suf	reflexive
				s	suf	nominalizing suffix fem
mâi		vt	to set up, put up, erect			
	mâiǂui	vt	postpone	mâi	vt	vt. set, put up, erect, plant
				ǂui	suf	v. suffix = out
				ǂui	vi	vi peep through opening
	mâsaos	n	stop sign	mâ	v	v. come to standstill, stop, pause
				saos	n	mother
				sao	vtt	vtt markwith distinctive sign, scripts etc
					vt	vt follow
	mâ‖khae-aob	n	person blocking kraal gate, obstructor	‖khae	vt	v.t. abstain, head off, turn back
	marib ‖oas	n	financial expenditure	marib	n	money, amount of
				‖oas	n	n. kiss
				‖oa	v	v. stat. be unable, to kiss
	mî-aras	n	syllable	mî	vt	vt. say, speak, tell
				aras	n	n. nodal ring,
				ara	vt	vt. ring cut, cry, linguistic segments in 5 compounds
	mû-ammi	n	edge of eyelid	mû	vt	vt. see
				ammi	n	n. right arm, right hand, beak, furrow
				am	a	a. right, right handed
	mû-‖goe	n	to see lying down	‖goe	vt	v.t. lie down
n						
	nabanaba	vt	to hide	naba/nawa	vt	vt. Move in behind, obscure
				naba/nawa tawa/tapa	n	n. lightening
	nao-ai	vt	to take a handfull of s.h out of a container	nao	vt	vt. take a handful of s.th
				ai	pp	pp. On top of, on basis of
				ai	x	x. of motherhood

o

ồ	{o}		(sentence final with past/present tense) when	ai	x	x. of surface
ò	{o}		(sentence final w. potential tense) if, adjectivising privative suffix… less, without … s.a. MÀRÍÒ, ÁMÀÒ,			
óà-ámmi	{oa-ammi}		posterior of upper thigh (corresponding to Biceps femoris)			
óà-ámṣ	{oa-ams}		hollow of knee;			
ồáb (/s)	{oab(/s)}		zool. Olive toad, Bufo poweri, s.a. ǁGỒÁB			
óà-dàồb	{oa-daob}		way back, as an expression	oa		to return, go back
				daob		road
òàhằà, òà!khĭĭ	{oahā, oa!khī}					
òà-òằ	{oa-oa}		tacitly prompt (visitor) to go home by inhospitable conduct			
òấs	oas	n.	(detachable) arrow tip, pile (of arrow), arrowhead, s.a. ǁGÀŰB	{oa}		return, go back, s.a. ǁÁRÚ1, !HÒWÀ2:
óà-ùűdàồb	{ao-ūdaob}		way/raod/path (leading) back			
óàxằ	{oaxa}		inclined to go back			
òà!hàò òà!hàố	{oa!hao}		go back/return together			
óà!nùú	{oa!nū}		pull back/in/up leg			
óàǁàèb óàǁáèb	{oa‖aeb}		time to go back/home, closing time			
òấǁgàŭb	{oa‖gaub}	n	arrow with detachable tip			
				oa	vi	vi return, go back
				ǁgaub	n	arrow shaft
				ǁgau	vi	vi with negative (tama) indifferent, perfunctory
				ǁgau	vtt	vtt. Indicate, show, select
				ǁgâu	vt	vt. construct
óà!gáˆà	{ oa!gâ}		repeat, reiterate, say/do over 2. S. KŐÓ!GÁˆÀ*			
óà!gáˆàs*	{oa!gâs}		KŐÓ!GÁˆÀS*			
	olosikhedeb	n	watch strap	olosi	n	n. clock (from Afrikaans hoorlosie ?)
				khedeb	n	n. chain (from Kette, (German))
	omamhaib		builder			
				om		build
	ommâi		erect a monument			

					mâi		to set up, put up, erect
		ôa-ôa	vt	allow water to accumulate in a well	ôa	vi	vi fill with water, increase in well
					ôa	vt	vt give birth
					ôa	vt	vt look, search for
		Orlam	n	Nama from Cape, westernized in 19th C	ora	a	a. raw, uncoooked. Nominalized = abstract n.
				from Cape Dutch, Malay ? Orlammi ?(H&E)		n	barbarity, courseness,
					ore	v	untie, unfasten, release
					oro	vt	vt buck, throw rider/burden
					oro	n	animal who lost its offspring
					oro	a	worn down/thin/v. turn on lathe
					lammi/nammi	n	n. tongue
	òsè	{ose}		postp. Without;			
	ó, ósà	{o, osa}		(sentence initial) (and) then			
r							
		rand|khores	n	rand coin	rand	n	south african currency
					|khores	n	N. prophecy
s							
		sākhâi	vt	to gather everything	sā	vt	vt. forage, gather, glean, peck up
					khâi	vi	vi rise, stand up
					khai	vt	vt. consecrate, set aside, single out (unnasalized)
w							
		wekheb|ams	n	n. weekend			
	w ǐr óki, wǐrób		n	n. incense			
	wòkàtǐfs, ǂgàǐǐ|gàùb	(wokatifs, ǂgaiǐ|gaub)	n	n. ling vocative			
	Wǔństáxtsèẽs	{Wunstax-tsēs}	n	n. Wednesday	Wunstax	n	from Afrikaans 'Woensdag'
					tsēs	n	day (in Nama)
x							
	X {x}			(=Sesf. Dialects for kh), s.a XÒÒRǏS			
	-xà	(<XÁÀ){-xa}		ventive verbal extension (causing bilateral flip-flop) denoting movement towards speaker,			
		‖GÓˆÁXÀ,					
	-xà	{-xa}‖KHÙŰ-- ….		adj. suffix, w. nouns full of-,rich in-: w. verbs keen/inclined to-			
	-xà	{-xa}		postp. From, of; by (w. passive): about			

xaa	{xā}	ideo. Denoting tearing noise of material,			
xáà	{xā}	attack/fall upon/assault/assail (in group, esp w. pincer move-			
	s.a. ǀHÀŐǀKHÁÀ,	ment) hem in, close in on, move in front to corner (game/fish) fig. tackle work jointly: play against smaller team);			
xàã (áì)	{xā(-ai)	v.t scrape (dry hide to remove inner membrane before currying); scrape (surface) w. blade (e.g. grade road)			
xáàs	{xās}	n. battue;			
xáàsà	{xāsa}	a. attacked, assaulted, assailed, hemmed in, closed in;			
xàà‡gàà	{xā‡gā}	v.t surround, encircle, encompass; besiege;			
xǎé	{xae}	v.t obsc. Have sexual intercourse w. fuck s.a.			
ǀ					
ǀàḿ		Come to end of event/terminate/			
ǀàḿ.mi		Professional/social position/post/ office/rank/summit/point/end	.mi	suf	noun/gender marker
ǀg					
/gú		near			
	/gu	rusty/dirty			
/gúb		closeness			
/gú-khoib		neighbour			
/gú-khois		neighbour			
/gúnia-tsē		of the next day			
/gúniχa-tsē		of the next day			
/gúsa		approachable			
/gúsase		approachable			
/gúse		near			
/gúsib		closeness			
/gù-/aib		river name /boil			
/gú		boil/cook			
/gúi		one / numbers, singularity, aloneness			
	/gui	tire of			
/gúia		once			

	/gui-/gui	unite
	/gui-tsē	once/once upon a time
/gúi-/a		eleven/
/gúira		unity
/gúise		only
/gúri		alone, lonely
	/guri-khoib	only1 myth-hero
	/guri-/guri	set alone
ǀh		
	ǀhama	operate on for cataract
	ǀhamās, ǂnao-ās	cell (of honeycomb)
	ǀhamab	strap muscle of back
	ǀhamai	operate on (s.o) for cataracts
	ǀhami	dress (s.o) warmly (w. additional clothing)
		cover (s.o) blankets
	ǀhami	gather belongings for trip
	ǀhamisen	euphem. Sit decently, arrange clothes properly
	ǀhami ǂgā	pack (s.th) into s.th, collect insert
	ǀhammi, ǀās, daniǀās	empty honeycomb, beeswax
	ǀhamtsi(k)harabeb	solfugid
	ǀhan	rot, putrefy
	ǀhana	deprive
	ǀhana	linger, delay/prolong departure,
		dawdle, dally (on way)
	ǀhana-aob /s	lingerer (s,o) who dawdles on the way
	ǀhanab / s	smell of urine
	ǀhanasen	deprive someone of s.th,
		uiba ra "" take one's own life
	ǀhanaxa	smelling of urine
	ǀhanaxa	tardy, inclined to linger
	ǀhanaxasib	tardiness, inclination to linger
	ǀhanaǀhanasen	intentionally delay / prolong departure
	ǀhana!nā	endure/suffer pangs of hunger,
		have empty stomach
	ǀhana!nâ	to rot to a moderate extent
	ǀhana!nâsa	rotten, putrefied, gone off

ǀhanne, ǀhanni,	underlay, lay something underneath
	something for protection
ǀhanne!gâba	protect, saddle with saddle blanket
ǀhanne!nâ	stuff, pad (esp. on inside)
	put sth under sth else for protection
ǀhanne!nâxũn	padding, material for stuffing
ǀhanni	the lord's table
	meal, prepared food
ǀhans	place of ritual slaughter,
	with underlay of branches.
ǀhans	fog patch
ǀhao	meet, assemble, merge business, come together
	converge at water(game)
ǀhao	in verbal compounds, do jointly together
ǀhao ais	venue, rendezvouz, meeting place
ǀhaob	sum in math
ǀhao hâb / s	congregation, parish-compound
ǀhao hâsi	relating, pertaining to the congregation/ parish
ǀhao hâsixûn	the congregation, parish
ǀhaos	meeting, gathering, appointment
ǀhaos	hessian jute bag
ǀhara	hang, dangle, wobble
ǀharab	contents/dung in stomach
ǀharas	wart
ǀhareb	tatters, frays
ǀhareb	fringed, tassled
ǀharebab	honey badger
ǀhareǀhare	to be headstrong
ǀharib	damp
ǀhari	soak, steep, moisten hide
ǀharo	be tough, resilient
ǀharob	neck sinew
ǀharos	edible fruit of creeper
ǀharub	rush, rush mat, basket
ǀhami	dress (s.o) warmly (w. additional clothing)
	cover (s.o) blankets

ǀhao	meet,
ais	surface, place
	meet, stay on

	ǀhamisen		euphem. Sit decently, arrange clothes properly	sen	suf	reflexive
	ǀhan		to rot, putrefy, bread become stale			
	ǀhanab / s		smell of urine	b/s	suf	nominalizing
	ǀhanaxa		smelling of urine			
	ǀhanne, ǀhanni,		underlay, lay something underneath something for protection			
	ǀhanne!gâba		protect, saddle with saddle blanket	ba		
	ǀhanne!nâ		stuff, pad (esp. on inside) put sth under sth else for protection			
	ǀhao		meet, assemble, merge business, converge at water(game)	xa		
	ǀhao		in verbal compounds, do jointly together			
	ǀhaos		meeting, gathering, appointment			
	ǀhao hâsixûn		the congregation, parish	s si,xun		
	ǀHomabob	n	heavenly father	ǀHom	a	heavenly ?
				ǀhommi		heaven
				ǀhom		drizzle, fresh, oily,
					vt	block
				abob	n	father
ǁ						
	ǁan!hao		live together (as husband and wife)			
	ǁîˆì		confidence, and arrogance,			
	ǁònǎ		jostle			
	ǁőná‖ònà‡gàˆà		push into a crowd	ǁőná‖ònà ‡gàˆà		ǁònǎ continuous and intransitive insert
	ǁőná‖ònà‡gàˆàsèn		position o.s. advanatageously by pushing through crowd	sèn		REFLEXIVE
ǁg	ǁgabob		wing of bird			
	ǁgabo		pile, heap up			
	ǁgapehā		come toddling			
	ǁgara		obs- draw (crooked, random lines)			
	ǁgarab		line, straight/irregular.			
	ǁgarab		(written) line, line (of print)			
	ǁgarab		Lit. verse			
	ǁgarab		rule, regulation			
	ǁgaraba ‡gae		draw a line			

ǁgarao, ǁganao	unruled, without lines, plain, blank
ǁgaralari, ǁgaraǂui	delete/cross out (single word/line)
ǁgara!âp	geom. line segment
ǁgara!gao	underline, fig: emphasize
ǁgara!gaosa	underlined; fig: emphasized
ǁgara!gâu!nâ	delete/cross out (entire section/page)
ǁgara!nâ	draw/trace over (line(s))
ǁgaraǂais	poet. Metre
ǁgare	be able to keep up w. others/to maintain pace of others (esp. horse)
ǁgare	fail to find words (fr agitation) (rust)
ǁgare	be able to keep up w. others/to maintain pace of others (esp. horse)
ǁgares	obs. Carbing tool (f. making …)
ǁgari	force, compel, constrain, oblige, bring pressure to bear upon, coerce
ǁgari	frisk/frolic
ǁgari	wonder grass
ǁgarib	obs. Tall wooden bucket (rust)
ǁgaro	snap up flung object
ǁgaru	drive herd at faster pace
ǁgarub/s	bowl shaped rock hollow
ǁgarus	bag, sack
ǁgau	with tama, indifferent
ǁgau	show, point, indicate
ǁgaub	arrow shaft
ǁgaure	look f. s.th. Edible in veld
ǁgauseb	bird type
ǁgauǁnau	shave head of s.o.
ǁgawa	peer into distance
ǁgawa	hurt accidentally
ǁgawa	hurt accidentally
ǁgawa khau	flame up
ǁgawan	weapons, tools
ǁgawarab/s	caul
ǁgawas	palm
ǁgawe	hook, pull down

	ǁgaweɬae		pointed upright ung. ears
	ǁgawi		turn green
ǁkh			
ǁkhònáɬgàˆàsèn			position o.s. advanatageously by pushing through crowd
!			
	!oa		to meet s.o., encounter
	!oaras		work, attend to business
	!oa(r)s!oa(r)s		daughter in law
	!oaǁnâ		korhaan
	!oe		pick off/pluck ticks/burrs
	!oeb		dislocation
	!oenis		evening, dusk
	!oes		wooden spoon
	!om		botanical
	!om		butt/ram
	!om		force exit, escape
	!om		hornless, polled
	!om		coagulate
	!omamâs		hand of human, arm
	!ommi		gray hairs placed on child
	!oms		remove imbedded thorn
	!oms		muscle
	!oms		female genitals
	!on		leprosy scab (biblical)
	!onas		suck at empty breast
	!onkhao		small tortoise
	!oo		hole
			plug, close, fill hole/tooth
	!oobs		be late
!ǹ			
!nóò		vi	to keep quiet/to silence
!kh			
	!khai	a	cold
	!khai	vt	chop, fell, carve up meat
	!khaib	n	botanical
	!khaib	n	area, region, vicinity, class

	!khaib	n	head cloth, dress material
!kháì.s		n	place, spot, site, locality, affair, matter
!kháè.s [N] sòà.s			
	!khō		hold, catch (3 pages compounds)
	!khōb		stove pipe
	!khomas	n	dome shaped anthill, pile of luggage
	!khompō		stupid, dull
	!khom kharuru		make drumming noise
	!khon		fold material/wire
	!khons		patchwork blanket
	!khoras		chicken pox
	!khoreb/s		slang shrewd person
	!khores/b		impala lily 4 arrow poison
	!khoro		dry up, exhaust of subst
	!khorob/s		lime stone CaCO4
	!khowa		dig (animal) out of burrow
	!khowa		break (dam)
	!khowab		edible Hoodia currori
	!khowo		wilt, wither, droop
	!khowobes		rushes, cyperus
	!khui-am		hem, edge
	!khuib		Grielum sinatum
	!khuib		testes' inflamation
	!khuis		starling size bird
	!khui !huiseb		motor cycle ?
	!khuni		turn back from destination
	!khunu		hang one's head
	!khurab		
	!khuri		turn inside out
	!khuri		familiarize o.s with
ǂ	ǂama		post position - about
	ǂama		vaunt, boast
ǂn			
	ǂnao-ās		cell (of honeycomb) *interpretation seems wrong*
			stain = blotch beverage
ǂnűˆí		vt	position v.t.

ɬnùˆĺhőó	vt	position (s.th.) firmly Tie up tight, refer to the thing spoken	ɬnűˆí	vt	position v.t.
			hȍò	vt	find, receive, catch

English wordlist

a	dictionary entry		gloss
	apiarian	a.	pertaining to bee keeping
	apian	a	relating to bees
	apiary	n	place where bees are kept
	apical	a	relating to or denoting an apex
	apices	n	plural form of apex
	apiculture	n	technical term for bee-keeping
	apiece	adv	to, for, by each one
	apish	a	resembling or likened to an ape
	apla	n	azanian people's liberation army
	aplasia	n	the failure of a tissue or organ to develop
	aplastic anaemia	a n	deficiency of all types of blood cell caused by failure of bone marrow
	aplenty	a	abundance
	aplomb	n	self confidence or assurance
	apnoea	n	temporary cessation of breathing
	apo-	pref	away from or separate prep.
	apocalypse	n	revelation
	apocope	n	cutting off last syllable or letter of a word
	apocrypha	n	books of old testament included in ... but not originally in hebrew
	apocryphal	a	of the apocrypha, of doubtful authenticity, sham, false
	apod	n	bird, reptile, fish, without or with undeveloped

		feer or ventral fins
apodictic	a	of clear demonstration, established
apodosis	n	concluding clause of sentence
apogee	n	point in orbit farthest from earth/sun, most distant/high spot
apolaustic	a	self-indulgent
apollinaris	n	mineral water exported from Rhenish Prussia
apollo	n	greek sun god
apollyon	n	the devil
apologetic	a	regretfully acknowledging
apologetical	a/n	speak in defense
apologist	n	one who defends by argument
apologize	vi	make an apology
apologue	n	moral fable
apology	n	regretful acknowledgment of offence
apophthegm	n	terse saying, pithy maxim
apoplectic	a	pertaining to, causing apoplexy
apoplexy	n	malady arresting powers of sense and motion
aposiopesis	n	sudden breaking off in speech
apostasy	n	abandonment of faith
apostate	n	guilty of apostasy
apostatize	vi	become an apostate
aposteriori	a/adv	reasoning from effects to causes
apostil	n	marginal note
apostle	n	messenger, esp the 12 whom christ sent forth to preach the gosp.

b

beguinage	n	house of beguines
beguine	n	member of Netherlands lay

		sisterhood
begum	n	Mohammedan queen or lady of high rank in Hindustan
begun	vt	see begin.
behalf	n	on the part of
behave	vi	conduct oneself
behaviour	n	deportment, manners, moral conduct
behaviour ism	n	psychological doctrine that…
behead	vt	cut the head from
beheld	vt	see behold
behemoth	n	enormous creature
behest	n	command
behind	adv/p/n	preposition. In or to the rear of
behindhand	a	manner of acting deceptively
behindhand	adv	in arrears with payments
behold	vt	become aware of by sight
beholden	a	under obligation
behoof	n	use advantage
behove	vt	v.t. impers. Be incumbent on
beige	n	kind of dress material made of unbleached wool
being	n	in vbl. Senses, also or especially existence
belabour	vt	thrash
belated	a	overtaken by darkness
belaud	vt	load with praise
belay	vt	coil
belch	v	emit wind noisily
belch	n	eruction, sound of gun
beldam	n	old woman
beleaguer	vt	v.t. besiege
belemnite		tapering sharp pointed fossil bone

c

card board	n	type of card
card games	n	type of games

		with cards
cart horse	n	heavy horse bred to pull carts
cart load	n	a cart full of something
cablegram	n	message by submarine cable
calla lily	n	European marsh plant
car man	n	type of worker
carboy	n	large globular glass bottle usualy in a frame
case history	n	collection of documents recording transactions between two parties esp legal or medical
cart wheel	n	wheel of a cart, also a type of athletic head over heals rotating movement
carte blanche	n	full discrtionary power, blank paper given to person to write his or her own terms
call boy	n	someone available to freelance
call centre	n	place where telephone sales are done
call changes	n	changes called out in bell rining sequence
call girl	n	female escort or sex worker who goes to or recieves clients by appointment
can trip	n	spell which reads the same forward and backward, scottish
visiting card	n	card left to show you have visited
can dock	n	Nuphar luteum yellow flowered water lily or modular floating

		dock
clasp hands	v	not a listed compound. To bring hands together firmly and clutch
shake hands	vv	not a listed compound. To seal an agreement with a handshake.
callback	n	invitation to return for second interview or audition, type of programming code
cave in	vt	to collapse inward
chop back	vt	to return abrubtly
cash in	vt	obtain cash in exchange for something, to take advantage of
clam up	vt	to refrain from speaking about or discussing something
chip in	vt	to contribute
check in	vt	register at hotel or airport
choke off	vt	to prevent or stop the free flow of something, such as an engine, a debate
clamp down	vt	suppress or prevent in a harsh manner
clear up	vt	become clear (weather / a misunderstood issue) recover from illness, tidy a space
clean up	vt	an act of cleaning, or to make a profit
clean out	vt	type of cleaning
clear out	vt	type of cleaning
clap eyes on	vt	type of perception
out class	vt	type of measure of performance
in chorus	adv	type of co-ordination of

		performance
		manner of acting
		speed of
chopchop	adv	performance
cheek by		arrangement of
jowl	adv	things
		manner of acting-emotional
chapfallen	a	reaction
		manner of being -
chin deep	adv	overwhelmed
		a steady flow of
Current	a/n	electricity/water, of the present time
		ligth two wheeled chariot drawn by
Curricle	n	two horses
		a course of study,
curriculum	n	a list, a program
		a finisher of
currier	n	leather hides
		cowardly and
currish	a	ignoble
		spicy dish orignating in India an
curry	n	southeast Asia
		utterance intended to invoke a supernatural power to inflict
curse	n	harm
		a person or thing who has been burdened by a
cursed	a	curse
		a style of writing with joined
cursive	a	characters
		an indicator used to show current positionin computer user
cursor	n	interfaces
		adapted to run, endurance
cursorial	a	hunting
		hasty, not
cursory	a	thorough
		cadence pattern at the end of a sentence, roman
cursus	n	race track
		curse, abrupt,
curt	adv	tart (usually of

		areply)
curtail	v	reduce in extent, impose restriction on
curtail-step	n	the starting step of a flight of stairs that is wider than the rest
curtain	n	a piece of cloth draped to obscure light, or stop water
curtana	n	ceremonial sword used in British coronations
curtilage	n	the enclosed space of ground immediately around a dwelling house
curtsy	n	greeting made by females by bending the knees
curule	n	high ranking roman or their ceremonial chair
curvature	n	deviation from flatness, something curved
curve	n	a line that is not required to be straight
curvet	n	a graceful or energetic leap

d

disentail	v	free from legal entail
disentangle	v	extricate
disenthrall	v	free from bondage
disentomb	v	take out of tomb
dis	n	instability
equilibrium	n	
disestablish	v	undo establishment of
diseur	n	monologue artiste
disfavour	n, v	disapprove/al
disfeature	v	mar features of
disfigure	v	deform, deface, sully
disforest	v	clear of forest
disfranchise	v	deprive of citizen rights

disfrock	v	deprive of clerical status
disgorge	v	eject from throat
disgrace	n	loss of honour
disgrace	v	bring shame upon
disgruntled	a	discontented
disguise	v	conceal identity
disguise	n	condition or means used
disgust	n	loathing
disgust	v	excite loathing
disgustful	a	inspired by/being d.
dish	n	vessel / type of food
dish	v	serve up
dishabille	n	undress
dishabituate	v	make person unaccustomed
disharmonize	v	make discordant
disharmony	n	discord
dishearten	v	make dispondent
disherison	n	disinheriting
dishevelled	a	with untidy appearance
dishonest	a	fraudulent

e

encumber	v	hamper
encumber ance	n	burden
encum brancer	n	person having encumbrance on another's estate (legal)
encyclical	(n), a	(pope's letter) for extensive circulation
encyclo pedia	n	book giving information on all branches of knowledge
encyst	v	enclose in a cyst
end	n	limit, goal,
end	v	bring to an end
endamage	v	damage
endanger	v	cause danger to
endear	v	render dear to
endeavour	v,n	try
endemic	a,n	[regularly found but] limited to a certain

		place[group]
endermic	a	acting on the skin
ending	n	latter part of
endive	n	curly leafed chicory
endless	a	infinite, incessant
endo-		prefix f gk within
endorse	v	sign/write on back of document

f

first class	a	evaluation of a thing - good
football cap	n	cap with football colours

g

gall	n	pustule, painful swelling
gall	v	injure by rubbing, harass
gall	n	tree excrescence from insects
gallant	a,n,v	showy, ladies' man, flirt
gallantry	n	courage or courtliness
galleon	n	war ship shorter and higher than galley
gallery	n,v	covered balcony, to provide g.
galley	n	single deck ship w.sails & oars, ship kitchen, printer's tray
galliambic	a,n	poetry metre of Catallus' Attis
galliard	n	fast three time dance
Gallic	a	of the Gauls
Gallican	a,n	of ancient semi autonomous Gallic church
gallice	adv	French translation of English P
galligaskins	n	trousers
gallimaufry	n	jumble
gallinaceous	a	of order Gallinae (poultry)
gallinazo	n	american turkey buzzard
Gallio	n	official refusing to meddle outside his province

galliot	n	small dutch cargo boat
gallipot	n	small clay pot for ointments
gallium	n	soft bluish white metal
leading case	n	type of event
scotch cap	n	type of garment

Nama word type analysis. Comd = compound, hom = homonym.

total	comd	affix	hom	short	HAACKE ORTHO	POS	MEANING
1			1	1	à	sam	stative aspect marker f. esp. present tense
1			1	1	á	hp	particle introducing hortative sentences
1			1	1	ǎá	n	yes
1			1	1	àǎ	v.i.	v.i. cry, weep, bawl, howl, pule
1				1		v.i.	utter characteristic cry of animal (crow,mew)
1				1		v.i.	rumble (of stomach)
1				1		v.i.	fig. complain, grumble sl. Bellyache
1			1	1	à	sam	stative aspect marker f. esp. present tense
1			1	1	á	hp	particle introducing hortative sentences
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1				1		v.i.	utter characteristic cry of animal (crow,mew)
1				1		v.i.	rumble (of stomach)
1				1		v.i.	fig. complain, grumble sl. Bellyache
1		1		1	àǎb àǎs	n.	n. of above
1		1			àǎbǎ	v.t	cry over, cry out of longing for
1						v.t	cry out for (cow or calf)
1		1			àǎ(bǎ)sèn	v.i.	v.i. pity o.s. feel sorry for o.s.
1		1			àǎrì	v.t	v.t. bewail/lament (deceased)
1		1			àǎxrìxǎ	a.	a.
1		1			àǎ(tsàˆà)xǎ	a.	a. disposed to cry, over sensitive
1		1			àǎxǎrìxǎ	a.	a. inclined to whimper/whine (of: child)
1	1	1			àǎǁòm̀ǁòm̀sèn	v.i.	v.i. to cry o.s. to sleep
1	1				àǎ!gáˆás	n.	n. fourth reed flute in six or 3rd in set of 4
1	1				àǎǂűí	v.t	v.t. cry loudly/freely
1	1	1			àǎǂűísèn	v.i.	v.i. relieve o.'s by weeping, weep until calm
1			1	1	áà	v.t	v.t. drink
1	1	1			áàb áà-i	n.	n. drink, beverage esp. alcoholic liquor
1		1		1	áàs	n.	n. drink, beverage, non alcoholic
1	1	1			áà-àǒb,	n.	n. alcoholic, habitual drinker
1	1	1			áà-àǒs,		""
1	1	1			áà-àǒ-i		""
1	1				àà-ǎú	v.tt	v. tt. Share(o.'s drink/beverage) w. (s.o.), s.a
1	1	1			áàb ǁgàˆùb	n.	n. evil of drink
1		1			ààbǎ	v.t	help (s.o.) finish a drink
1		1				v.t	drink i.o. to gain dutch courage for (quarrel)
1		1			ààbǎsèn	v.i.	v.i. drink by o.s.
1		1			áàbẽs	n.	n. drinking cow [allotted by parent f. child's exclusive use] (?Rust '69:9)
1	1				ààgǎo	v.t	v.t. drink (s.o.) under the table
1	1	1			ààgǎósèn	v.i.	v.i. bec. Enslaved to alcohol
1	1				ààhàwű ààhàpű	v.t.s	v.t s. !KHÁWÈ
1	1				ààkhǎnú	v.i.	v.i.
1	1	1			ààkhǎnùkhànûsèn	v.i.	quench/slake thirst (of human.b./anim.)
1	1	1				v.i.	euphem. Bec. Intoxicated/drunk s.a. ǀHÒRŐ, !GÀˆÙ
1	1	1			ààkhǎnúsĩb	n.	quenching of thirst.
1						n.	drunkenness, intoxication, inebriety,
1	1	1			ààkhǎnúxǎ	a.	given to drunkenness,
1	1				ààkhǎˆì	v.t	v.t. drink dry (e.g. pan, open water),
1	1	1			aama	v.t	(pronunc. Ààmǎˆà v.t. (go on) pub crawl, drink at various places,
1	1	1			aamaagu	v.t	(pronunc. ààmǎˆàgù) v.t. drink (s.th.) by turns (fr. One vessel)
1	1				ààmáˆá	v.i.fig	v.i. fig no longer drink (habitually)
1	1				áà-ǒm̃s	n.	n. shebeen
1		1			áàrò-i	n.	n. drink,
1		1			áàsǎ	a.	drinkable, potable
1						a.	of wh. Some h.b. drunk, wh. H.b. drunk of
1		1			ààsĩ	v.t	v.t water (animal), feed ligquid to (child/invalid)

1	1				ààtőá	v.t	v.t finish drinking (of: esp. anim.)
1		1			áà(tsàˆà)xǎ	a.	a. inclined/given to drink (especially alcohol)
1	1	1			Áàxùǔb-i	n.	n. in general beverage
1	1				Áàxùǔn (di)	n.	n. bottle store, off sales.
					‖àmàxùú‖gǎˆǔs		
1		1		1	Ǻáis		face
				1	ai	pp.	postposition - on top of, on basis of.
		1		1	aib	n.	face, surface,frontside, leading position
1	1	1			Ǻì àǒsènni	n.	sweat from the face
						n.	sweat
1		1			Ǻí ìǐsib	n.	picture / facial complexion
1					Ǻí khóőb	n.	foreskin, prepuce
						n.	skin
1	1				ǻímù ǔlgárù	v.	prognosticate
						v.	see
1	1				ǻís ɬàmà	v	lie face downwards
1	1	1			ǻís lkhǻáb	n.	front side, face, facing
1	1	1			ǻílgàùs	n.	example, illustration
1	1	1			ǻí !őráběb	n.	inner incisor
1	1	1			ǻí !ùǔb	n.	cannon of fore leg
1	1	1			ǻí !ùǔs	n.	carpal section of front leg
1	1	1			ǻíɬàm̀měb	n.	topsoil
1	1				ǻíɬhòmì	v.	prepare, get ready
						a.	ready to use
1	1	1			ǻíɬhàrùbě	a.	prepalatal
						n.	palate
1	1	1			ǻíɬkhúrùb	n.	central vein on forehead
						n.	vein
1				1	àì	v.	stammer stutter, speak indistinctly, omit clicks
1		1		1	Ǻms		mouth
1					Ǻná		cover – many many meanings
1				1	Áò		throw lightly
1		1		1	Áòb		a man
1			1	1	Àű		bitter
1			1	1	Ǻú		share in / bring up raise – morph additions
1					Àűdos		several motor items with word combo and morph
1				1	Dǎò		burn, cook, boil
1			1	1	Dǐí		transact, practice treat, lots
1			1	1	Dìì		ask examine lots
1			1	1	ǒ	conj.	(sentence final with past/present tense) when
1			1	1			(sentence final w. potential tense) if,
1			1	1	ò	adj +	adjectivising privative suffix… less, without… s.a. MÀRÍÒ, ǺMÀÒ,
1		1			òsè		postp. Without;
1		1	1	1	ó, ósǎ	conj.	(sentence initial) (and) then
1		1		1	ǒáb (/s)	n. .	zool. Olive toad, Bufo poweri, s.a. ‖GǑÁB
1		1		1	òǻs	n.	(detachable) arrow tip, pile (of arrow), arrowhead, s.a. ‖GÀǔB
1	1	1			òǻ‖gàǔb	n.	arrow w. detachable tip
1			1	1	óà	v.i.	return, go back, s.a. ‖ǺRÚ1, !HÒWÀ2:
1		1		1	óàs	n.	return: :
1	1	1			óà-ám̀mi	n.	posterior of upper thigh (corresponding to Biceps femoris)
1	1	1			óà-dàǒb	n.	way back, as an expression
1	1				òàhǎà, òàlkhìǐ		
1	1	1			òà-òǎ	v.t	tacitly prompt (visitor) to go home by inhospitable conduct
1	1	1			óà-ùǔdàǒb	n.	way/raod/path (leading) back
1		1			óàxǎ	a.	inclined to go back
1	1				òàlhàò òàlhàő	v.i.	go back/return together
1	1				óàlnǔú	v.i.	pull back/in/up leg
1	1				óà‖àèb óà‖áèb	n.	time to go back/home, closing time
1	1				óà!gáˆà	v.t	repeat, reiterate, say/do over 2. S. KǑÓ!GÁˆÀ*
1	1	1			óà!gáˆàs*	n.s.	KǑÓ!GÁˆÀS*
1			1	1	hǎˆà	asp	aspect marker denoting completed perfective aspect
1			1	1	hàˆǻ	v.i.	stat be present/there, be (in/at a place, exist, be reality
1			1	1	háˆá	v.i.	stay, remain, stay on/behind, remain behind,

1			1				live/dwell (temporarily) (12 compounds on p 49)
1	1				hàˆã-óà	v.i.	stay, remain behind, stay away
1	1				hàˆã-óàxùű	v.i.	stay behind (contrary to original intention)
1	1				hàˆã-óàxùű	v.t.	leave (s.o.) by staying behind
1		1			háˆá(tsàˆà)xà	a.	inclined to stay, remain behind/at home.
1	1				háˆá-ùű	v.t.	be/remain w. (s., i.o. to look after..)
1	1	1			háˆá-ùűgù	v.i.	live together/cohabit,
1	1	1			wekheb|ams		n. weekend
2		1			w ìr óki, wìrób		n. incense
2	1	1			wòkàtífs, ǂgàílì`ì|gàùb		n. ling vocative
1	1				Wùństáxtsèès		n. Wednesday
					X {x}		(=Sesf. Dialects for kh), s.a XÒÒRÍS
1			1	1	-xà		ventive verbal extension (causing bilateral flip-flop) denoting movement towards speaker,
1			1	1	-xà		adj. suffix, w. nouns full of-,rich in-: w. verbs keen/inclined to-
1			1	1	-xà		postp. From, of; by (w. passive): about
1			1	1	xaa		ideo. Denoting tearing noise of material,
1			1	1	xáà	v.t	attack/fall upon/assault/assail (in group, esp w. pincer move-ment) hem in, close in on, move in front to corner (game/fish)
1							fig. tackle work jointly: play against smaller team);
1		1		1	xáàs		n. battue;
1		1			xáàsà		a. attacked, assaulted, assailed, hemmed in, closed in;
1	1				xàà‡gàà		v.t surround, encircle, encompass; besiege;
1				1	xàã (ái)		v.t scrape (dry hide to remove inner membrane before currying); scrape (surface) w. blade (e.g. grade road)
1				1	xãé		v.t obsc. Have sexual intercourse w. fuck s.a.
1				1	Dằà		to step or tread
1				1	|àḿ	v.t.	Come to end of event/terminate/
1		1			|àḿ.mi	n.	Professional/social position/post/office/rank/summit/point/end
1				1	!kháì.s !kháè.s [N] sòà.s	n.	position
1			1	1	mã́ˆá	v.t.	Come to standstill, stop (v)
1	1				màˆã|gằì	v.t.	Hold strong (mil) position, stand firm On decision, persist, have rigid stds.
1	1				màã|gằì	v.t.	Compound = lit. stop-make bed
1	1				màˆàtíkőó	a.	How many, how much
1	1	1			màˆàtíkőó||ìì	n.	position (of sequence) ? – in which
1	1	1			hàḿtíkőó||ìì		""
1				1	ǂnűˆí	v.t.	position v.t.
1	1				ǂnùˆíhőó	v.t.	position (s.th.) firmly
1				1	!nóò	v.t.	position (stones as support for pot in fire)
1	1				||őná||ònàǂgàˆà	v.t.	push into a crowd
1	1				||őná||ònàǂgàˆàsèn	v.t.	position o.s. advanatageously by pushing through crowd
1	1				||khònáǂgàˆàsèn	v.t.	jostle CONTINUOUS INTRANSITIVE + insert + REFLEXIVE
150	67	67	28	54			

ENGLISH WORD TYPE ANALYSIS: comd = compound, affix = formed by affixation

collected by starting at a random page number and recording all words on one page

page	word type					word	meaning
	total	short	borrow	comd	affix		
50	1		1		1	aparian	pertaining to bee keeping
	1		1		1	apiary	place where bees are kept
	1		1		1	apical	belonging to an apex, placed at the tip
	1		1	1	1	apiculture	bee keeping
	1				1	apiece	severally, each
	1				1	apish	of the nature, appearance, of an ape
	1		1		1	aplomb	perpendicularity, self possession
	1		1			apnoea	suspension of breathing
	1		1			apo-	prefix - off, from, away, detatched, separate, in Gk compounds
	1		1			apocalypse	revelation
	1		1			apocope	cutting off last syllable or letter of a word
	1		1			apocrypha	books of old testament included in … but not originally in hebre
	1		1			apocryphal	of the apocrypha, of doubtful authenticity, sham, false
	1		1			apod	bird, reptile, fish, without or with undeveloped feer or ventral fi
	1		1			apodictic	of clear demonstration, established
	1		1			apodosis	concluding clause of sentence
	1		1			apogee	point in orbit farthest from earth/sun, most distant/high spot
	1		1		1	apolaustic	self-indulgent
	1		1			apollinaris	mineral water exported from Rhenish Prussia
	1		1			apollo	greek sun god
	1		1			apollyon	the devil
	1		1		1	apologetic	regretfully acknowledging
	1		1		1	apologetical	speak in defense
	1		1		1	apologist	one who defends by argument
	1		1		1	apologize	make an apology
	1		1		1	apologue	moral fable
	1		1		1	apology	regretful acknowledgment of offence
	1		1			apophthegm	terse saying, pithy maxim
	1		1		1	apoplectic	pertaining to, causing apoplexy
	1		1		1	apoplexy	malady arresting powers of sense and motion
	1		1			aposiopesis	sudden breaking off in speech
	1		1		1	apostasy	abandonment of faith
	1		1		1	apostate	guilty of apostasy
	1		1		1	apostatize	become an apostate
	1		1			aposteriori	reasoning from effects to causes
	1		1			apostil	marginal note
	1		1		1	apostle	messenger, esp the 12 whom christ sent forth to preach the gos
100	1		1			beguinage	house of beguines
	1		1			beguine	member of Netherlands lay sisterhood
	1		1			begum	Mohammedan queen or lady of high rank in Hindustan
	1				1	begun	see begin.
	1				1	behalf	on the part of
	1				1	behave	conduct oneself
	1				1	behaviour	deportment, manners, moral conduct
	1				1	behaviourism	psychological doctrine that…
	1				1	behead	cut the head from
	1				1	beheld	see behold
	1				1	behemoth	enormous creature
	1				1	behest	command

1				1	behind	preposition. In or to the rear of
1			1		behindhand	in arrears with payments
1				1	behold	become aware of by sight
1				1	beholden	under obligation
1				1	behoof	use advantage
1				1	behove	v.t. impers. Be incumbent on
1		1			beige	kind of dress material made of unbleached wool
1				1	being	in vbl. Senses, also or especially existence
1				1	belabour	thrash
1				1	belated	overtaken by darkness
1				1	belaud	load with praise
1				1	belay	coil
1					belch	emit wind noisily
1					belch	eruction, sound of gun
1		1			beldam	old woman
1		1		1	beleaguer	v.t. besiege
1		1		1	belemnite	tapering sharp pointed fossil bone

66		42	2	41		
total	short	borrow	comd	affix		
page	word type				word	meaning

FORMULAE BASED ON THE CATEGORIES AND THEIR INTERSECTION WITH HEADEDNESS.

compound	VN n -r	VN.n - op	PN. n-r	PN. a-r	AN n-r	NN. n-op ther	NN n- 2 ex V	NN n- op ex V	NN. n-r	nn. n-b	VVN. n -r	XN. n-r	N-R	NP v-L	VPr. v-	V-L	N-op	n - 2	VV. n -R	VV n. L	VV n-0	VN. n-op	VV. v- R	VV. v-L	VV. v-2	VV. v op	VV. v 0	VPv -L	Xv. v -R	NV. v 0	aa. v- -2	AP. a 0/o	PV. v -R	NN. a -R	PN a -R
ãís ŧàmà														1		1																		
ãís lkhãáb			1																															
Ãî àõsènni			1																															
Ãí ĩísib																																		
ãíǂkhúrù b			1																															
ãíǂàñmẽ b			1																															
ãíǂhàrùbẽ				1																														
ãí !ùûb			1																															
ãí !ùûs			1										1																					
Ãí khóőb			1										1																					
ãíllgàùs			1										1																					
ãímù ùlgárù																																1		
ãí !őrábẽb			1										1																					
ãíǂhòmì																																1		
compound																																		
doe-ommi omamhaib	1												1																					
oadaob	1												1																					
ommâi																								1										
khakha																										1								
khaukhũs																																		
ã‡uisen															1	1																		
ã|gara																							1											
aibekam																																	1	
ai‡nau																							1											
am!nas																		1																
ao!khuni																1								1										
ao!nã kuni																										1								
audob |Homabob					1								1																					
bõsa!nâ																															1			
dã-apo danadanab												1	1													1								
danikãs									1				1																					
dâu‖gôaxa																1								1										
dĩdawa-am																1								1										
doe-gauru																							1											
dom!nâb farkhespeki							1				1		1				1																	
gãdã																									1									

gari!apa gowa‡ans																	1							1													
																				1																	
gūre aob	1												1																								
harahara																																	1				
haba aob	1												1																								
hō-oa																	1							1													
hōnahaba																																		1			
ībagumîs																																					
kaikharob																																					
kōdao																																					
kōri-aob																																					
kuru-unu																																					
khākhoeb																																					
khâima																																					
khoesi																																					
!gôasib khoesi‡ūsi																																					
khobodī																																					
khôa|am mā‖nāsens																	1							1													
marib ‖oas								1											1																		
mâsaos									1				1																								
mâ‖khae-aob											1		1																								
mâi‡ui																												1									
mî-aras													1							1																	
mû-ammi																							1														
mû-‖goe																					1																
nao-ai								1									1																				
nabanaba																																					
oa‖gaub olosikhedeb							1			1			1																								
Orlam		1																	1																		
ôa-ôa rand|khores						1													1																		
sākhâi																																					
	4	1	9	1	1	2	1	2	3	1	1	1	16	1	1	9	4	2	1	1	1	1	3	6	5	3	1	1	1	1	1	1	2	1		
	4	1	9	1	1	1	2	2	3	1	1	1	16	1	1	9	4	2	1	1	1	1	3	6	5	3	1	1	1	1	1	1	2	1		
compound	**VN n -r**	**VN.n - op**	**PN. n-r**	**PN. a-r**	**AN n-r**	**NN. n-op ther**	**NN n- 2 exV**	**NN n- op ex V**	**NN. n-r**	**nn. n-b**	**VVN. n -r**	**XN. n-r**	**N-R**	**NP v-L**	**VPr. v-**	**V-L**	**N-op**	**n - 2**	**VV. n -R**	**VV n. L**	**VV n-0**	**VN. n-op**	**VV. v- R**	**VV. v-L**	**VV. v-2**	**VV. v op**	**VV. v 0**	**VPv -L**	**Xv. v -R**	**NV. v 0**	**aa. v- -2**	**AP. a 0/o**	**PV. v -R**	**NN. a -R**	**PI a -R**		
													21			9	4	3		1	1	1	3		5	3	1		1	1	1	1	2	1		

ENGLISH CORRELATIONS BETWEEN COMPOUND FORMULAE AND HEADEDNESS

	VP.v-L	**VP.v-R**	**VP.v-0**	**VN.n**	**NN.n-R**	**NN.n-L**	**NN.n-2**	**AN.a**	XN.n-R	XN.n-OP	VN.v-L	VP.n-L	NP.v-0
card board							1						
card games					1								
cart horse					1								
cart load					1								
cablegram					1								
calla lily					1								
football cap					1								
car man					1								
carboy					1								
case history					1								
cart wheel					1								
carte blanche						1							
apiculture					1								
scotch cap					1								
leading case					1								
call boy									1				
call centre									1				
call changes									1				
call girl									1				
can trip										1			
visiting card					1								
can dock					1								
clasp hands											1		
shake hands											1		
callback												1	
cave in	1												
chop back		1											
cash in			1										
clam up													1
chip in			1										
check in	1												

choke off	1													
clamp down	1													
clear up	1													
clean up	1													
clean out	1													
clear out	1													
clap eyes on														
out class														
in chorus														
chopchop														
cheek by jowl														
behindhand								1						
chapfallen														
chin deep														
first class								1						
	8	1	2		15	1	1	2	4	1	2	1	1	

VP.v-L	**VP.v-R**	**VP.v-0**	**VN.n**	**NN.n-R**	**NN.n-L**	**NN.n-2**	**AN.a-0**	XN.n-R	XN.n-OP	VN.v-L	VP.n-L	NP.v-0
8	1	2		15	1	1	2	4	1	2	1	1

NUMBER OF COMPOUNDS WITH THIS FIRST ROOT -1

ǂui	vi peep through opening	0
ǂans	vt knowledge/awareness	0
ǀgara	hamper, hinder, impede	0
speki	bacon (Afrikaans)	0
khedeb	n. chain (from Kette, (German))	0
kharob	bed	0
kamab	n. specific time of day	0
gūb/s	sheep	0
gauru	vt be on the way	0
dommi	throat, voice	0
ammi	n. right arm, right hand, beak, furrow	0
abob	father	0
ǁoas	n. kiss	1
rand	south african currency	1
oro	vt buck, throw rider/burden	1
oas	n. detatchable arrow tip	1
!nās	n. turn, chance, opportunity.	1
!nâb	n. light, visible radiation	1
!ā	vt look out for something with shaded eyes	1
sao	vtt markwith distinctive sign, scripts etc	2
oro	animal who lost its offspring	2
marib	money, amount of	2
kōri	vt stare, gape	2
gūre	vt look for sheep	2
!apa/!awa	vts to schratch something across the eyes	2
saos	mother	3
kuni	v.t. rub	3
be	v. weigh, disappear,	3
ǁgaub	arrow shaft	4
ǀkhores	N. prophecy	4
olosi	n. clock (from Afrikaans hoorlosie ?)	4
nao	vt. take a handful of s.th	4
kharo	vt clear resting place	4
hōna	same sens, -b deleted	4
ǁgau	vi with negative (tama) indifferent, perfunctory	5
unu	vt change, alter course	5
hōnab	n. small animal breed	5
hara	spacious	5
naba/nawa	n. lightening	6
khobo-	bound morph 'slave'-	6
audob	vehicle	6
ai	pp. On top of, on basis of	6
oro	worn down/thin/v. turn on lathe	7
ora	a. raw, uncoooked. Nominalized = abstract n. =	7
kunis	n. wagon	7

khai	vt. consecrate, set aside, single out (unnasalized)	7
ī	vi stat. look, appear, seem	7
farkheb	pig (Afrikaans)	7
sā	vt. forage, gather, glean, peck up	8
naba/nawa	vt. Move in behind, obscure	8
kam	vt sip, n. comb	8
ǁgoa	v.t. threaten	9
ôa	vi fill with water, increase in well	9
am	a. right, right handed	9
!khuni	turn back, alter, convert to other religion	9
bō	holey	10
ā	cry	10
ǀhommi	heaven	11
	vt hang out laundry, stretch out in sun	11
khā	x. bound morpheme = of enmity	12
ī	vi pass	12
danib	honey	12
ai	x. of motherhood	12
!goa	regain consciousness, crack whip, form hollow	13
!apa/!awa	vi climb onto, board	13
ī	**happen, occur, progress**	14
ǁgoa	n. dawn	15
ôa	vt give birth	15
hā	vt come, arrive, bring along	15
gari	vt roll	15
!nā	v.t. exceed, increase, multiply	15
ǁgôa	vi descend, go down	16
hawa	vt to mix	16
hawa	vt to mix	16
gū	x. (bound) of sheep	16
khâi	vi rise, stand up	17
khâi	vi. rise, stand, get up	18
kās	n. loss, disappearance	18
am	bound morph in entitlement /contract words	18
am	a. right handed, right, v. roast	18
!nâ	vt shine	19
am	right, right handed, roast,	20
ǁnā	adv indicative, distant	24
oa	vi return, go back	24
dom	x. (bound) of throat, voice, manners	24
doe	move, trek, swarm	24
dawa	v. t . Turn around, invert	24
dao	x. bound morpheme, daob = road,	24
!nâ	shine, among, call for help, apply force to lever	24
	vt follow	24
ǂū	blunt object, without manners person	25

ara	vt. ring cut, cry, linguistic segments in 5 compounds	25
ôa	vt look, search for	26
dâo	vi flow, stream	30
gā	fool, trick	31
ǁgau	vtt. Indicate, show, select	35
dī	vtt ask, question	35
ore	untie, unfasten, release	36
ǀam	two, deflate, vi come to end of	37
kuru	vt construct, manufacture, make	39
ǁgoe	v.t. lie down	47
ǁgâu	vt. construct	47
gowa	vi argue, vt preech	47
danas	n. head	47
aob	man	47
aob	man	47
ao	throw lightly, toss	47
!nā	v.t. exceed, increase, multiply	47
ǀhom	drizzle, fresh, oily, vt block	50
ams	mouth,	50
ǁkhae	v.t. abstain, head off, turn back	53
mā	vt give, volunteer, ready, surrender	66
!gôa	count reckon calculate	67
khôa	vt break, fracture, quarry	70
hō	vt obtain, receive	71
ǂnau	beat, throb, palpitate, hit ,flog	75
ǂan	to know	75
ǁnā	v.t. leave alone, fall in battle, drop out	75
dā	step, tread	75
khoe	bound root - human	80
am	x. (bound) - in ams (mouth) contractual sense	94
kai	big, great	96
mî	vt say, speak ill of	97
mâi	vt. set, put up, erect, plant	100
kō	vt have eyes open, measure	100
dī	vt transact, execute, treat	100
mî	vt. say, speak, tell	107
mû	vt. see	113
ai	first in time, surface, face, in front, fore-, pre-	150
mâ	v. come to standstill, stop, pause	165
ai	x. of surface	200

word		gloss	parts	gloss	compositionality	historical ?	opacity
ářá-àrà	{ara-ara}	grizzle, cry fretfully	ara		1		1
ářáxářá	{araxara}	(w. hâ) be stark naked (hence embarrassing) s.a.	ara	ring bark, toe infection, segmentation			
		(w. hâ) be embarrassing by . repeating blasphemous words of s.o	xara	scratch and leave mark			
àá(tsàˆà)xà	{ā(tsâ)xa}	a. disposed to cry, over sensitive	ā	cry, drink	1		
			tsā	try for			
			xa	affix >adj.			
àáxàrìxà	{āxarixa }	a. inclined to whimper/whine (of: child)	ā	cry, drink			1
àáxrìxà	{ārixa}	a.	xarixa	splashed on/wiped off the face			
àá‖òm̀ - ‖òm̀sèn	{ā‖om - ‖omsen}	v.i. to cry o.s. to sleep	‖om	fall asleep	1		
			‖om‖om	continuous aspect			
àá!gáˆás	{ā!gâs}	n. fourth reed flute in six or 3rd in set of 4	ā	cry, drink		1	
			!gā	listen to closely			
àá‡ű́í	{ā‡ui}	v.t. cry loudly/freely	‡ui	peep through an opening/window			1
			‡ui	verbal suffix meaning óut			
àá‡ű́ísèn	{ā‡uisen}	v.i. relieve o.'s by weeping, weep until calm	sen	reflexive	1		
Áì àòsènni		sweat from the face	ai	bound root, meaning face, infront, etc	1		
			aosen –	sweat			
			ao	v.. Toss			
			sen	reflexive suffix			
			i	3 p, neut, sing/causative-agentive v. suffix			
Áí ìíśib	?	picture / facial complexion	ī	stative, look, appear, seem	1		
			si	abstract Noun suffix (ness, hood, ity)			
			b	nominal suffix masc			
Áí khóőb		foreskin, prepuce	khōb	N. skin of animal	1		
			khō	x. (bound) of leather, and work with skins			

word	gloss	parts	gloss	compositionality	historical ?	opacity
áímù ù‖gárù	prognosticate	mu	see			

			u	? No known prefix or grammatical element			
			ˇlgárù	scatter, be incoherent, talk deliriously			
áís ŧàmà		lie face downwards	ŧàmà	pp about, brag	1		
			s	fem suffix nominalizing			
áíllgàùs		example, illustration	áíllgàù	productive v. root - demonstrate		1	
			´llgau	construct with thorn bushes			
			s	fem suffix nominalizing			
áí !őrábèb		inner incisor (also called central)	!orabep	tick (zool)		1	
		2 front teeth	!ora	pluck, pick, fruit/ticks one by one			
			be	polysemic suffix (adv ?)			
			b/p	nom suffix (masc)			
áí !ùùb	ai !ūb	cannon of fore leg	!ūb	shin bone/tibia of human being, canon of hoofed animal	1		
			!ū	v.i. wilt wither, whine, howl			
			!ū	v.t approach threateningly, step over, graze			
			b	nominalizing masculine suffix			
áí !ùùs	ai !ūs	carpal section of front leg	!ūs	forehead ???			1
áíŧàm̃mèb		topsoil	ŧammeb	not in HE dictionary			1
			ŧam	v.t. de-bark a tree, a. lower, a. elitist			
			e	suffix denoting vocative			
			b	nominaliziing suffix masculine			
áíŧhòmì		prepare, get ready	ŧhomi	prepare, make ready	1		
			sen	reflexive			
áíŧkhàrùbề		prepalatal	ŧkharub	palate	1		
			bề	adjectivizing suffix			
áíŧkhúrùb		central vein on forehead	ŧkhurub	vein	1		

word		gloss	parts	gloss	compositionality	historical ?	opacity
áís lkhááb		front side, face, facing,	lkhāb/s	1 body (SOROB) 2 side, direction 3 surface	1		
danilās		empty honeycomb, beeswax, literaly: honey town	danib	honey	1		

			dani	**n. bound noun root**		
			!ās	**town**		
			lās	**town**		
			lā	**squeeze, press**		
			!ā	**stretch, spread out**		
			s	**nominalizing suffix fem**		
dɔ̀è- ɔ̀m̀mi		**ship, vessel**	**doe**	**to move house, trek, migrate**	**1**	
			Dàà	to step or tread , many meanings in ompounds,		
			Dàòb	path		
			Dàò	burn, cook, boil		
			ommi	house of extraordinary size, mansion, large nest		
			om	to build, construct		
			mi	**nominalizing suffix mass nouns**		
hàˆá-óà	{hâ-oa}	stay, remain behind, stay away	hàˆá	stat be present/there, be (in/at a place, exist, be reality		1
			háˆá	stay, remain, stay on/behind, remain behind, live/dwell (temporarily) (12 compounds on p 49)		
			óà	v.i. return, go back, posterior		
hàˆá-óàxùű	{hâ-oaxū}	stay behind (contrary to original intention)	xúù	bound root: entity, things, pp- away from	1	
hàˆá-óàxùű	{hâ-oaxū}	leave (s.o.) by staying behind			1	
háˆá - (tsàˆà)xà	{hâ(tsâ)xâ}	a. inclined to stay, remain behind/at home.	tsàá	v.t. Lick	1	
			tsáá	v. i. glow (of coals)		
			tsaa	aux v. : try to		
			xa	adj. derivation/ towards speaker verb derivation		
word		**gloss**	**parts**	**gloss**	**compositionality**	**historical ? opacity**
háˆá-ùű	{hâ-ū}	be/remain w. (s., i.o. to look after..)	ùű	verb suffix meaning with		1
háˆá-ùűgù	{hâ-ūgu}s.a. ‖ÀŃ‖HÀŐ	live together/cohabit,	gu	reciprocal suffix	1	
	khakha	make choking sound of jackal being smoked out				1
	khau!khūs	incinerate	khau	vi burn		1
			khūs	(cannot find)		
			!khūs	(cannot find)		
			!khū	vi become rich		
			!khū	vt pound, crush, shoot at indiscriminately		

		!khū	vi come up (fog) vt cover(fire, food, deceased)			
		khū	a. hump-backed			
		khū	vt inflate			
		khū	v.i become bloated			
màˆálgàì	Hold strong (mil) position, stand firm On decision, persist, have rigid stds. (43 in regular flip flop >24)	lgàì	Spread a blanket, Make a bed (v.t.)		1	
		máˆá	Come to standstill, stop (v)			
màálgàì	Compound = lit. stop-make bed	mā lgàì	vt give, volunteer, ready, surrender	1		
màˆàtíkőó	How many, how much ? ?	ti	can't find			
		kō	vt have eyes open, measure			
		màˆà	which, what ?			
màˆàtíkőóllìì	position (of sequence) ? – in which	**llìì**	vt tie up tight		1	
hàḿtíkőóllìì	""	hamti	interrogative adverb		1	
				20	8	7
				compositionality		
					historical ?	
						opacity

compositionality analysis: English - semantic common sense transparency

compound	**semantic compositionality**	**historical info makes clear**	**opacity**	
card board	1			
card games	1			
cart horse	1			
cart load	1			
cablegram	1			
calla lily	1			
football cap	1			
car man	1			
carboy				1
case history			1	1
cart wheel	1			
carte blanche			1	
apiculture	1			
scotch cap	1			
leading case			1	
call boy	1			
call centre	1			
call changes	1			
call girl	1			
can trip				1
visiting card	1			
can dock				1
clasp hands	1			
shake hands	1			
callback	1			
cave in			1	
chop back			1	
cash in	1			
clam up	1			
chip in			1	
check in			1	
choke off			1	
clamp down	1			
clear up	1			
clean up	1			
clean out	1			
clear out	1			

clap eyes on		1	
out class		1	
in chorus	1		
chopchop			1
cheek by jowl	1		
behindhand	1		
chapfallen		1	
chin deep	1		
first class		1	
	30	12	5
	semantic compositionality	**historical info makes clear**	**opacity**

English compositionality analysis into subsets of meaning

compound	structure meaning	breakdown into subsets of meaning that separate the subsets contributing to the compound, the subtracted and added meaning
card board	N1N2 = N = type of N2	N1 = paper product + stiff + N2 = extensive + large + flat + depth much smaller than surface + wooden + N = features of N1 plus N2 minus wooden
card games	N1N2 = N = type of N2	N1 = paper product + stiff + printed with numbers and symbols+ sets of 13 x4 + N2 = rules + leisure activity + N = N2 using N1 or N = type of N2
cart horse	N1N2 = N = type of N2	N1 = vehicle + with wheels + propelled by animate entity + N2 = horse + N = type of N2 that works with N1 **plus** variety of N2 specifically bred to pull heavy weights
cart load	N1N2 = N = type of N2	N1 = vehicle + with wheels + propelled by animate entity + N2 = heavy + carried + N = type of N2 defined by capacity of N1
cablegram	N1N2 = N = type of N2	N1 = thin flexible can be very long + carries electricity + N2 = foreign N used as suffix with very limited productivity used for types of messaging of specific, not all modern invention N = type of N2 using N1 as a medium of transmission
calla lily	N1N2 = N = type of N2	N1 = place N2 = type of flower N = type of N2
football cap	N1N2 = N = type of N2	N1 = type of sport + N2 = type of garment + N = type of N2 **plus** worn in the presence of N1 event
car man	N1N2=type of job involving N1	N1 = male + mature + N2 = vehicle + household + exterior use + transport of humans + self propelled + N = features of N1 plus N2 plus implied N1's employment has something to do with N2
carboy	N1N2=type of job involving N1	N1 = male+ mature - N2 = vehicle + household + exterior use + transport of humans + self propelled + N = I really don't know
case history	N1N2 = N = type of N2	N1 = a particular instance + subject [legal, medical, criminal] + documented + processeed professionaly + N2 = chronology of separate events + spread out over time + documented or otherwise preserved + N = N1 + N2 plus N2 is of various medical N1's attached to one individual
cart wheel	N1N2 = N = type of N2	N1 = vehicle + animal drawn + exterior + N2 = round + spoked + freely rotating around axis +essential part of N1 + moving forward as it rotates + N = freely rotating around axis +, moving forward as it rotates + body movement + plus implication that person isn't pinned through waist
carte blanche	N1 Adj = metonym/obs. Hist.	N1 = fr. For stiff + paper product + N2 = fr for white N = type of N1 that is N2 plus implication white because unwritten plus extension of writing to instructions, therefore unrestricted permission to act on a matter
apiculture	N1N2 = N = type of N2	N1 = foreign prefix, or root that cannot stand alone, to do with / of bees + N2 = foreign word, to tend plants or animals + N = type of N2, of bees +

scotch cap	AdjN2 = N = type of N2	Adj = from Scotland + N 1 = garment + worn on head + with peak at front + N = type of N2, garment + worn on head + with peak at front + underlayer extension enclosing back of head +from Scotland -
leading case	AdjN2 = N = type of N2	Adj = in the forefront + N2 = a particular instance + subject [legal, medical, criminal] + documented + processeed professionaly + N = type of N2, in the forefront + a particular instance + subject [legal, medical, criminal] + documented + processeed professionaly +
call boy	N1N2= N + job involving N1	N1 = to shout/telephone/send for someone to come + N2 = male + mature - N = job description involving N1+ shout for - intertainment industry job description +
call centre	V1N2 = N = type of N2	V1 = to shout/telephone/send for someone to come + N2= in the middle of + having connections to many places surrounding it + a building where there is a focus on something + N = type of N2 working with V1 + in the middle of -
call girl	V1N2=N=type of job involving N1	V1 = to shout/telephone/send for someone to come + N2 = male - mature - N = job description for female - involving V1 + expensive/exclusive prostitute +

theta : English

compound	C	constituents	constituent's theta ?	resulting compound meaning
card board	n	n + n	instrument/patient + goal	material
card games	n	n + n	theme + action-noun	type of games
cart horse	n	n + n	theme + agent	type of animal
cart load	n	n + n	theme + action	amount of transported substance
cablegram	n	n + n	instrument + goal	type of communication
calla lily	n	n + n	source + theme ?	plant
football cap	n	n + n	beneficiary + theme / N ?	type of garment
car man	n	n + n	theme + agent	type of worker
carboy	n	n + n	theme + agent	type of bottle
case history	n	n + n	theme + instrument	type of document
cart wheel	n/v	n + n	theme + theme	part of artefact / action(metaphor)
carte blanche	n	n + a	experiencer + manner	fr. Borrowing
apiculture	n	a + n	goal + action	type of farming
scotch cap	n	a + n	source + theme / N ?	type of garment
leading case	n	a + n	action + experiencer	type of event
call boy	n	v/n + n	action + theme	worker
call centre	n	v/n + n	action + location	place
call changes	n	v/n + n	cause + action	actions
call girl	n	v/n + n	action + experiencer	type of female employment
can trip	n	v/n + n	?	type of event
visiting card	n	v/n + n	nom. Action + instrument	type of communication
can dock	n	v/n + n	type + thing	plant
clasp hands	v	v + n	action + instrument	type of symbolic social action
shake hands	v	v + n	action + instrument	type of symbolic social action
callback	n	v + prep	action + manner	invitation type
cave in	v	v + prep	action + manner	type of movement direction
chop back	v	v + prep	action + manner	type of direction change
cash in	v	v + prep	theme + manner	type of money transaction
clam up	v	n + prep	action	type of conversational move
chip in	v	v + prep	theme + manner	type of conversational move
check in	v	v + prep	theme + manner	type of organizing action airtravel
choke off	v	v + prep	action + manner	action with a car
clamp down	v	v + prep	action + manner	type of government action
clear up	v	v + prep	action + manner	type of weather change
clean up	v	v + prep	action + manner	type of cleaning
clean out	v	v + prep	action + manner	type of cleaning
clear out	v	v + prep	action + manner	type of cleaning
clap eyes on	v	v + n + prep		type of perception
out class	v	prep + v/n	manner + action	type of mode of performance
in chorus	adv	prep + n	manner + action	type of co-ordination of performance
chopchop	adv	v + v	action + action	manner of acting speed of performance
cheek by jowl	adv	n + prep + n	experiencer + location	arrangement of things
behindhand	a	a + n	locati	manner of acting deceptively
chapfallen	a	n + v (past)	experiencer + goal	manner of acting- emotional reaction
chin deep	a	n + a/adv	experiencer + goal	manner of being - overwhelmed
first class	a	a + n/v	manner + action	evaluation of a thing - good

English Themes

con=concrete, abs=abstract, leg=legal, sci=scientific, natS=natural science, med=medical, art=artifact, tim=time, mov=movement, wth=weather, sub=substance, sta=state, zoo=zoological anatomy, ani=animal, bot=botanical or plant, geo=geological, soB=social behaviour, B=all behaviour, behaviour, plB=plant behaviour, anB=animal huB=human behaviour, org=organizing, per=persons, for=form, rel=religion, anC=animal care, evl=evaluating

		con	abs	leg	sci.	natS	med	art	tim	mov	wth	sub	sta	zoo	ani	bot	geo	soB	B	plB	anB	huB	org	per	for	rel	anC	evl
Current	a flow /of present time	1	1		1	1		1																				
Curricle	2 wheel chariot	1	0					1																				
curriculum	course of study, list, program	0	1																				1					
currier	a finisher of leather hides	1	0																					1				
currish	cowardly and ignoble	1	1																					1				
curry	spicy dish	1						1				1																
curse	utterance invoking harm	0	1															1										
cursed	being burdened by a curse	0	1																							1		
cursive	writing with joined characters	1	0					1																				
cursor	position indicator computer	1	0					1																				
cursorial	running, endurance hunting	0	1		1																							
cursory	hasty, not thorough	0	1																									1
cursus	sentence end cadence	1	1		1																							
cursus	roman race track	1						1																				
curt	abrupt, tart areply	0	1															1										
curtail	reduce in extent	1	1	1											1													
curtail-step	1st(wide)r step of stairs	1	0					1																				
curtain	hanging cloth shield	1	0					1																				
curtana	ceremonial sword	1	0					1																				
curtilage	ground around house	1	0	1				1																				
curtsy	greet by bending knee	1	0															1										
curule	roman official, his chair	0	1					1																				
curvature	the property of a curve	1	0																						1			
curve	shape with smooth bend	1	0																						1			
curvet	a graceful or energetic leap	1	0												1													
disentail	free from legal entail		1	1																								
disentangle	extricate	1								1												1						
disenthrall	free from bondage	1		1														1										

disentomb	take out of tomb	1				1					1			
disequilibrium	instability	1	1				1							
disestablish	undo establishment of	1		1							1			
diseur	monologue artiste	1										1		
disfavour	disapprove/al		1											1
disfeature	mar features of	1									1			
disfigure	deform, deface, sully	1									1			
disforest	clear of forest	1						1			1			
disfranchise	deprive of citizen rights		1	1					1					
disfrock	deprive of clerical status		1										1	
disgorge	eject from throat	1								1				
disgrace	loss of honour		1						1					
disgrace	bring shame upon		1						1					
disgruntled	discontented	1									1			
disguise	conceal identity	1									1			
disguise	condition or means used	1									1			
disgust	loathing	1									1			
disgust	excite loathing	1								1				
disgustful	inspired by/being d.	1	1							1				
dish	vessel / type of food	1			1									
dish	serve up	1									1			
dishabille	undress	1							1					
dishabituate	make person unaccustomed		1								1			
disharmonize	make discordant		1											1
disharmony	discord	1					1		1					
dishearten	make dispondent	1	1								1			
disherison	disinheriting		1						1					
dishevelled	with untidy appearance	1							1					1
dishonest	fraudulent		1								1			
encumber	hamper	1								1				
encumber-ance	burden	1		1										1
encumb-	person having encumbrance	1		1										
rancer	on another's estate (legal)		1											
encyclical	(pope's letter) for extensive circulation	1		1									1	

encyclopedia	book giving information on all	1			1															
	branches of knowledge																			
encyst	enclose in a cyst	1					1					1								
end	limit, goal,		1																	1
end	bring to an end		1													1				
endamage	damage	1		1												1				
endanger	cause danger to		1													1				
endear	render dear to	1	1												1					
endeavour	try	1	1														1			
endemic	[regularly found but] limited		1			1														
	to a certain place[group]																			
endermic	acting on the skin	1	1				1													
ending	latter part of		1						1											
endive	curly leafed chicory	1												1						
endless	infinite, incessant		1																	1
endo-	prefix f gk within		1		1															
endorse	sign on back of document		1	1																
gall	pustule, painful swelling	1					1													
gall	injure by rubbing, harass	1														1				
gall	tree excrescence from insects	1									1			1						
gallant	showy, ladies' man, flirt	1																1		
gallantry	courage or courtliness	1													1					
galleon	war ship shorter and higher	1						1												
	than galley																			
gallery	covered balcony	1						1												
galley	low sail ship w. oars	1						1												
	ship kitchen, printer's tray																			
galliambic	poetry metre of Catallus' Attis		1					1												
galliard	fast three time dance		1					1		1										
Gallic	of the Gauls		1															1		1
Gallican	of ancient semi autonomous		1																1	
	Gallic church																			
galligaskins	trousers	1						1												
gallimaufry	jumble	1																		1
gallinaceous	of order Gallinae (poultry)	1			1								1							
gallinazo	american turkey buzzard	1											1							

Gallio	official refusing to meddle outside his province		1																					1					
galliot	small dutch cargo boat	1						1																						
gallipot	small clay pot for ointments	1						1																						
gallium	soft bluish white metal	1				1						1																		
		66	41	11	6	3	3	20	1	3	0	3	2	1	4	3	0	13	8	0	0	15	0	4	0	3	0	8		
		con	abs	leg	sci.	natS	med	art	tim	mov	wth	sub	sta	zoo	ani	bot	geo	soB	B	plB	anB	huB	org	per	for	rel	anC	evl		

SEE CODES UNDER ENGLISH THEMES

	POS		concr	abstr	sci	nat sci	medic	artfct	time	move	weathr	substance	state	zoo anat	anml	plant	geol	soc Beha	any Beha	plant Beha	anml Beha	human Beha	orgnz	pers	form	relig	anml care	evl.
page 300																												
!oa	v.t	to meet s.o., encounter	1															1										
!oa	v.i	work, attend to business	1		1													1										
!oaras	n	daughter in law	1																					1				
!oa(r)s!oa(r)s	n	korhaan	1			1									1													
!oa‖nâ	v.	pick off/pluck ticks/burrs	1				1															1					1	
!oe	n.	dislocation					1																					
!oeb	n	wooden spoon	1					1																				
!oes	n	evening, dusk			1				1																			
!oenis	n	botanical	1			1										1												
!om	v.t	butt/ram	1							1											1	1						
!oms	n	female genitals	1				1																					
!om	v	force exit, escape	1		1					1																		
!om	a.	hornless, polled	1			1																					1	
!om	v.i	coagulate	1				1						1															
!om	v.t	remove imbedded thorn	1				1																					
!oms	n	muscle	1				1																					
!oms	n	gray hairs placed on child	1															1										
!ommi	n	hand of human, arm	1				1																					
!omamâs	n	leprosy scab (biblical)	1				1																					
!on	v.t	suck at empty breast	1				1																					
!onas	n	small tortoise	1			1									1													
!onkhao	v.t	be late		1		1			1																			
!oobs	n	hole	1			1																			1			
!oo	v.t	plug, close, fill hole/tooth					1															1						

!khomas																																	
!khompō	a.	stupid, dull			1	1																											
!khom kharuru	v.i	make drumming noise	1				1																		1								
!khons	n	patchwork blanket	1							1																							
!khon	v.t	fold material/wire	1																										1				
	POS		con cr	abstr	sci	nat sci	medic	artfct	time	move	weathr	substance	state	zoo anat	anml	plant	geol	soc Beha	any Beha	plant Beha	anml Beha	hum n Beha	orgnz	pers	form	relig	anml care	evl.					
khōb	n.	stove pipe	1					1																									
!khō	v.t	hold, catch (3 pages comp)	1	1						1																							
!khoras !	x	chicken pox slang shrewd	1	1			1																										
khoreb/s	n	person impala lily 4		1																							1						
!khores/b	n	arrow poison lime stone	1			1										1																	
!khorob/s	n	CaCO4 dry up, exhaust of	1		1												1																
!khoro	v.i	subst dig (animal)		1	1								1																				
!khowa	v.t	out of burrow edible Hoodia	1			1															1												
!khowab	n	currori	1			1										1																	
!khowa	v.t	break (dam)	1		1					1																							
!khowo	v.i	wilt, wither, droop	1	1		1														1		1											
!khowobes	n	rushes, cyperus Grielum	1			1										1																	
!khuib	n	sinatum starling size	1			1										1																	
!khuis	n	bird testes'	1			1									1																		
!khuib	n	inflamation	1				1																										
!khui-am	v.t	hem, edge	1																			1											
!khui !huiseb	n	turn back from																															
!khuni	v.i	destination hang one's		1	1					1												1											
!khunu	v.i	head		1																		1											
!khurab	n																																
!khuri	v.t	turn inside	1		1																	1											

!khuri	v.t	out familiarize o.s with			1	1																				1				
	POS		concr	abstr	sci	nat sci	medic	artfct	time	move	weathr	substance	state	zoo anat	anml	plant	geol	soc Beha	any Beha	plant Beha	anml Beha	human Beha	orgnz	pers	form	relig	anml care	evl.		
p. 250																														
llgare	v.i	be unable to keep up w.	1		1													1												
llgare	v.i	fail to find words		1														1												
llgares	n	obs. Carving tool	1					1																						
llgarib	n	obs. tall wooden bucket	1					1																						
llgari	v.t	force, compel, constrain		1	1																	1								
llgari	n	wonder grass	1			1										1														
llgari	v.i	frisk/frolic	1			1															1									
llgaro	v.t	snap up flung object	1			1				1											1									
llgaru	v.t	drive herd at faster pace		1						1																	1			
llgarus	n	bag, sack	1					1																						
llgarub/s	n	bowl shaped rock hollow	1			1											1													
llgau	v.i	with tama, indifferent		1														1												
llgau	v.t	show, point, indicate		1	1													1												
llgaub	n	arrow shaft	1					1																						
llgaure	v.t	look f. s.th. Edible in veld		1																		1								
llgauseb	n	bird type	1			1									1															
llgaullnau	v.t	shave head of s.o.	1															1												
llgawa	v.i	peer into distance	1																			1								
llgawan	n	weapons, tools	1					1																						
llgawas	n	palm	1			1										1														
llgawa	v.t	hurt accidentally		1			1															1								
llgawa khau	v.i	flame up	1	1	1														1											
llgawarab/s	n	caul					1																							

ǁgawe	v.t	hook, pull down	1	1							1														1						
ǁgapehā	v	come toddling	1				1				1														1						
ǁgaweɬae	a	pointed upright ung. ears	1			1									1																
ǁgawi	v	turn green		1		1																1									
ǁgabob	n	wing of bird	1			1									1																
ǁgabo	v.t	pile, heap up		1	1						1														1						

	POS		concr	abstr	sci	nat sci	medic	artfct	time	move	weathr	substance	state	zoo anat	anml	plant	geol	soc Beha	any Beha	plant Beha	anml Beha	hum n Beha	orgnz	pers	form	relig	anml care	evl.
p. 200																												
ǀhammi	n	empty honeycomb	1			1						1		1														
ǀhamab	n	strap muscle of back	1				1																					
ǀhama	v.t	operate on for cataract	1	1			1																					
ǀhami	v.t	dress warmly w. add cloth		1			1																1					
ǀhami	v.t	gather belongings for trip		1																			1	1				
ǀhamtsi(k)harabeb	n	solfugid	1												1													
ǀhanni	n	the lord's table/meal	1	1				1																		1		
ǀhans	n	fog patch	1		1						1																	
ǀhhan	v.i	rot, putrefy		1			1						1															
ǀhanab/s	n	smell of urine	1			1						1																
ǀhana	v.t	linger		1			1			1								1										
ǀhana	v.t	deprive		1			1											1										
ǀhana !nā	v.i	endure pangs of hunger		1			1															1						
ǀhao	v.i	meet, come together	1	1	1					1								1										
ǀhaos	n	hessian jute bag	1					1																				
ǀharab	n	contents/dung in stomach	1			1						1		1														
ǀharas	n	wart	1				1																					
ǀhara	v.i	hang, dangle, wobble	1							1									1									
ǀhareb	n	tatters, frays	1										1															
ǀhareb	a	fringed,	1					1					1															

		tassled																																			
lharebab	n	honey badger	1			1													1																	
		to be																																		
lharelhare	v.t	headstrong		1																		1														
lharib	a	damp	1		1									1																						
		soak, steep,																																		
lhari	v.t	moisten hide	1						1																				1							
		edible fruit of																																		
lharos	n	creeper	1			1														1																
		be tough,																																		
lharo	v.i	resilient		1																		1														
lharob	n	neck sinew	1				1																													
		rush, rush																																		
lharub	n	mat, basket	1			1			1											1																
					1																															
			77	32	8	29	24	13	2	13	1	3	6	4	6	9	2	13	3	2	4	21	1	2	1	1	3		
	POS		con cr	abstr	sci	nat sci	medic	artfct	time	move	weathr	subst ance	state	zoo ant	anml	plant	geol	soc Bea	any Bea	plant Bea	anml Bea	hum n Bea	orgnz	pers	form	religg	anml care	evl.	