Sambulo Ndlovu*

Attributional and relational influence of numerals in S’ncamtho metaphors

https://doi.org/10.1515/lingvan-2019-0067

Abstract: Youth varieties in Africa such as S’ncamtho, the Ndebele-based youth variety in Zimbabwe, and urban vernaculars interact with urban and modern experiences which offer them new materials and experiences to base their metaphors on compared to older metaphors in the base languages. This paper explores the use of numeral qualities and associations in the conceptualisation and orthographic representation of S’ncamtho metaphors. S’ncamtho is popular with urban youth and this makes social media platforms such as Twitter, Facebook, WhatsApp, SMS and Instagram key in the performance of the youth variety, a performance that includes the creation, use and contraction of metaphors. Numerals offer phonetic attributes which are exploited in S’ncamtho as metaphors for contracting longer words into shorter ones for fast and economic writing on social media. Numerals are also used as frames to create analogies which elicit euphemistic and general S’ncamtho metaphors. Qualities of numerals such as sound, form and association are used to derive S’ncamtho metaphors and a unique numeral aided orthography to represent some of these metaphors in writing. The research deploys relational and attributional tenets of metaphor theory to analyse the numerical mappings in S’ncamtho metaphors.

Keywords: S’ncamtho, metaphor, numerals, glyph, social media

1 Introduction

This paper analyses how speakers of S’ncamtho the Ndebele-based youth language in Zimbabwe use numerical literacy to derive numeral glyphs in writing. Numeral glyphs that characterise S’ncamtho net speak are derived through phonemic and physical mappings creating instances of glyph metaphors. Youth language is a phenomenon which is closely related to slang and urban vernacular. Kiessling and Maarten (2004) identify several youth languages across Africa and they note that these differ from their base languages in lexes. Youth varieties in Africa and elsewhere are created by stylising lexes through various processes and some of these processes are also present in slang formation. Hurst (2017: 211) notes that: ‘while not simply slang, they share some features in common with slang use’. Hurst and Mesthrie (2013) propose stylect as a general term for all youth languages, the varieties are also known by other general terms in South Africa such as tsotsitaal, ringers, isistsotsi and isiijita. Hurst (2009) characterises tsotsitaal in South Africa, and avers that tsotsitaal is linguistic performance which utilises a style adopted by many youth living in urban townships in South Africa. The tsotsitaal style is signalled by the unique and innovative lexicon, and in this innovative lexicon numerals are also employed to create youth language lexes especially in Computer Mediated Communication. Zhang (2017) observes that use of numerals in digital communication as a shorthand strategy and language play is common across the world’s languages.

The phenomenon of youth languages in South Africa is important in the understanding of S’ncamtho the Ndebele-based youth variety in Zimbabwe, due to the close historical, linguistic and social ties between the Ndebele of Zimbabwe and the Zulu of South Africa. Additionally, many Ndebele speakers work in South Africa...
and even more watch South African television in Zimbabwe. The glottonym S’ncamtho derives from the same source as the name iScamtho for the Zulu-based youth variety in South Africa. Ntshangase (1993:1) posits that the name iScamtho is:

Derived from the (Zulu) verb -qamutha or -qamunda ‘to talk volubly or maintain a constant flow of language’, and is known to its speakers as iringas (from Eng. ‘ring’ as in the ring of a telephone), itaal (from Afr. taal i.e. language), istsotsi (from tsotsi meaning ‘a thief or generally ‘a young city slick man’) or isijita (from umiita ‘young man’).

The name S’ncamtho for the Zimbabwean variety was popularised by Ndlovu (2012), who points out that there is nasality of the dental click in the way the Ndebele pronounce iScamtho, creating the term S’ncamtho. The name is now established in literature as referring to the Ndebele-based variety. Ndlovu (2018a) uses the term as he looks at the evolution of S’ncamtho greetings over time, Ndlovu (2018b) measures the spread of the S’ncamtho variety to rural environs, while Ndlovu (2018c) evaluates the impact of S’ncamtho on place names within Bulawayo city. Ndlovu (2012) assesses the impact of S’ncamtho metaphors on Ndebele while Ndlovu (2018b) characterises metaphor in S’ncamtho and identifies lexical innovations used to derive S’ncamtho metaphors. The association between youth varieties and education has seen some elements from the school curriculum such as numerals being used to create lexes. The youth in S’ncamtho employ numerals to derive complex meanings and writing systems creating numerical metaphors in the process. Halliday (1976: 578) observes that: ‘There are phonological metaphors, grammatical metaphors- morphological, lexical and perhaps syntactic - and semantic metaphors,’ in youth varieties.

Numerical metaphors in S’ncamtho are mostly phonological, semantic and lexical. To interpret S’ncamtho texts as metaphorical, one has to delve into the cultural and discourse intricacies in which the metaphors operate (Ndlovu 2018b). Early scholarship on metaphor such as Grice (1975) and Levin (1977) believed metaphorical meaning to be created de novo, excluding pre-existing schemes. However, later developments confirm the opposite. Gibbs (1994), Kovecses (2002) and Lakoff (1987) all argue for the possibility that metaphor is fundamental to language, thought and experience. Lakoff (1993) views metaphor as cross-domain mappings based on thought processes, while Gibbs (1996) argues that a metaphor is not merely a figure of speech but a mental mapping. Metaphor in youth languages also includes euphemisms for tabooed concepts (Horne 2010; Selikov 2004; Suguitan 2005).

There are several lexicalising strategies in youth languages employed in the creation of metaphor. Smith-Hefner (2007: 192) identifies abbreviation as a lexicalising strategy in Gaul, the youth variety of Indonesia and Horne (2010) demonstrates how youth varieties use numerals to express abbreviations for example the BMW luxury sports car Z3’s brand name is used to refer to HIV whereby the {3} maps on to the three letters in the abbreviation. Mugaddam (2015) identifies semantic manipulation in Randuk and notes that it manifests mostly as metonymy, the relational extension of meaning. In this way, some metaphors are similarly created in S’ncamtho using numerals. Rüssch and Nassenstein (2016) also describe semantic manipulations as a lexicalising strategy in Lep la Bulu the Acholi-based Ugandan youth language, while Boutin and Dodo (2018: 55) note that: “In Nouchi, onomatosty synecdoche is used to reassign meanings from proper names.” In the Zimbabwean context Hollington and Makwabarara (2015) analyse lexicalising strategies in Zimbabwean youth varieties and they identify borrowing, code-switching and mixing, metathesis and morphological hybridisation. Numerals are also employed phonologically, semantically, structurally and relationally to create S’ncamtho metaphors.

The use of numeral homophones as syllables is common practice across the world’s languages, including vernaculars and youth varieties. Frehner (2008) avers that numbers often substitute words or part of them in text messages in English based on sound resemblance. Crystal (2008) gives a summary of the use of numerals in text messages in different languages in which they substitute syllables that are homophones to the numerals. He gives the example of the combination of Japanese and English in the Japanese greeting ohayoo [ohajoo] “good morning” numerically represented as {0840} – {0} (oh English) {8} (ha Japanese) {4} (yo Japanese) {0} (oh English). Nishimura (2006) also identifies the syllabification of numerals in Japanese online writing which he calls rebus writing motivated by word play and a desire to speed up typing. In his analysis of
French SMSs, Anis (2007) found out that numbers are part of the shortening strategies used to substitute for syllables and he calls this phenomenon “syllabogram” writing which provides for creative and economic expression. Shortis (2009) observes the same in English and notes that number homophones provide for brevity and speed.

According to Herring (2016) numerals do not only substitute syllables based on homophony but there are cases whereby graphic resemblance is employed. In analysing online Greek texts, Tseliga (2007) notes the substitution of the numeral [8] for Greek [θ] due to graphic resemblance and ease of typing; a similar trend is observed in Arabic by Palfreyman and Khalil (2003). Zhang (2017) observes that there is massive use of both Mandarin and Arabic numerals in Chinese online communication for non-numerical functions; he argues Arabic numerals are favoured to overcome the clumsy Chinese character input system.

The association of S’ncamtho with the new media has created an increased need for shorthand writing and this has seen numerals coming in handy to shorten certain words in writing. The shortening of words using numerals is based on phonological mappings between the sounds in numerals and the sounds in words. The structure of the numerals is also employed to express some situations which relate structurally to numerals, while certain relational mappings also use numerals as metonyms and meronyms. Bello (2016) identifies mobile phone language as influenced by slang in Nigerian schools and its effect on English learning. S’ncamtho is also used on social media platforms where space is limited and texts are expensive. It utilises numerals to shorten texts and retain the vividness of the expression.

2 Research methodology

Data for the research was collected using participant and non-participant observations, unstructured interviews and from social media platforms of Facebook, Twitter, WhatsApp and SMS. A total of 37 numerical metaphors were collected and their meanings and etymologies were discussed in social media focus group discussions and some were verified through interviews. Content analysis is the analytical process used to analyse the numerical metaphors. Content analysis is used to analyse meanings and relationships in texts. Krippendorff (1989:403) argues:

Content analysis is indigenous to communication research and is potentially one of the most important research techniques in the social sciences. It seeks to analyse data within a specific context in view of the meanings someone- a group or a culture attributes to them. Communications, messages, and symbols differ from observable events, things, properties, or people in that they inform about something other than themselves; they reveal properties of their distant producers or carriers, and they have cognitive consequences for their senders, their receivers, and the institutions in which their exchange is embedded.

Numerical metaphors and indeed all metaphors can be analysed using content analysis because it focuses on context and emphasises the cognitive consequences of a text to both sender and receiver. The cognitive effects of metaphors are realised through stimulus equivalence and the mappings are culturally and contextually governed.

3 Theoretical framework

This study deploys a conceptual metaphor theory to analyse the use of numerals in S’ncamtho discourse. Tenets of the Relational Frame Theory (RFT) of metaphor are employed to qualify some instances of numeral usage in S’ncamtho as creation and conceptualisation of metaphor. RFT derives from theorising human language from a psychological standpoint. The theory was developed by Hayes (1991), and is premised on relating human experiences one to another as a way of creating human cognition and ultimately human language. It argues for a bidirectional link between things to create human language. Stewart and Barnes-Holmes (2001:193) describe how: ‘RFT uses concepts of equivalence and transfer of function to analyse metaphor conceptually and empirically’. RFT focuses on stimulus equivalence and it
builds on research in human behaviour, language and learning. Chomsky’s (1957) work on generative grammar deals with novel and derived abilities in human language, and this stimulated researchers such as Keane (1988) to focus on deductive and analogical reasoning, and also led to an interest in cognitive development (Piaget 1967). The interest in cognition and language led Sidman (1994) to develop the concept of stimulus equivalence and Hayes et al (2001) aver that related effects of stimulus equivalence are relational frames.

Stimulus equivalence results in relational responding and RFT emphasises the importance of context for stimulus equivalence to function. Stewart and Barnes-Holmes (2001: 192) view RFT as: “an approach to language and cognition that treats phenomenon[a] as arbitrarily applicable relational responding”. Human language appears to specify the type of relation and the dimensions along which the types can be related so as to create strong links between two concepts. The theory argues that humans learn language through interacting with the environment and according to Hayes and Brownstein (1986) such learning is based on functional contextualism. Stewart and Barnes-Holmes (2001) aver that frames used in functional contexts can be combined to derive complex cognitive and verbal phenomena such as metaphor. Barnes-Holmes et al. (2004: 188) also note that: ‘the importance of physical properties in the natural environment as possible sources of contextual control over patterns of relational responding, is heavily emphasised in RFT’. Homophone and image schema are instances of physical properties applied on numerals to derive relational responding.

4 S’ncamtho shorthand numerical glyphs as phonemic metaphor mappings

Limited space on social media platforms prompted S’ncamtho to develop a shorthand writing system which employs sound correspondence to shorten words in writing. The sound correspondence is a type of stimulus equivalence whereby the two graphemes share the same auditory stimuli, and the matched sounds resemble each other. Cruse (2000: 112) argues: ‘most youth languages reveal numerous examples of metaphoric speech which can be understood as a grammar deals with novel and derived abilities in human language, and this stimulated researchers such as Keane (1988) to focus on deductive and analogical reasoning, and also led to an interest in cognitive development (Piaget 1967). The interest in cognition and language led Sidman (1994) to develop the concept of stimulus equivalence and Hayes et al (2001) aver that related effects of stimulus equivalence are relational frames.

Stimulus equivalence results in relational responding and RFT emphasises the importance of context for stimulus equivalence to function. Stewart and Barnes-Holmes (2001: 192) view RFT as: “an approach to language and cognition that treats phenomenon[a] as arbitrarily applicable relational responding”. Human language appears to specify the type of relation and the dimensions along which the types can be related so as to create strong links between two concepts. The theory argues that humans learn language through interacting with the environment and according to Hayes and Brownstein (1986) such learning is based on functional contextualism. Stewart and Barnes-Holmes (2001) aver that frames used in functional contexts can be combined to derive complex cognitive and verbal phenomena such as metaphor. Barnes-Holmes et al. (2004: 188) also note that: ‘the importance of physical properties in the natural environment as possible sources of contextual control over patterns of relational responding, is heavily emphasised in RFT’. Homophone and image schema are instances of physical properties applied on numerals to derive relational responding.

Limited space on social media platforms prompted S’ncamtho to develop a shorthand writing system which employs sound correspondence to shorten words in writing. The sound correspondence is a type of stimulus equivalence whereby the two graphemes share the same auditory stimuli, and the matched sounds resemble each other. Cruse (2000: 112) argues: ‘most youth languages reveal numerous examples of metaphoric speech which can be understood as a grammar deals with novel and derived abilities in human language, and this stimulated researchers such as Keane (1988) to focus on deductive and analogical reasoning, and also led to an interest in cognitive development (Piaget 1967). The interest in cognition and language led Sidman (1994) to develop the concept of stimulus equivalence and Hayes et al (2001) aver that related effects of stimulus equivalence are relational frames.

Stimulus equivalence results in relational responding and RFT emphasises the importance of context for stimulus equivalence to function. Stewart and Barnes-Holmes (2001: 192) view RFT as: “an approach to language and cognition that treats phenomenon[a] as arbitrarily applicable relational responding”. Human language appears to specify the type of relation and the dimensions along which the types can be related so as to create strong links between two concepts. The theory argues that humans learn language through interacting with the environment and according to Hayes and Brownstein (1986) such learning is based on functional contextualism. Stewart and Barnes-Holmes (2001) aver that frames used in functional contexts can be combined to derive complex cognitive and verbal phenomena such as metaphor. Barnes-Holmes et al. (2004: 188) also note that: ‘the importance of physical properties in the natural environment as possible sources of contextual control over patterns of relational responding, is heavily emphasised in RFT’. Homophone and image schema are instances of physical properties applied on numerals to derive relational responding.
alludes to numeral homophones in online Mandarin and gives the example of {55} [wǔwǔ], which mimics the sound of weeping. However, in S’ncamtho the numeral {5} [fài] pronounced in Zimbabwean English as [fají] is used as a numerical glyph to represent the sound [fæj] (the final [f] phoneme is excluded in the sound mappings) and words that have the sound [fæj] as part of their phonemes are written with the numeral {5} representing [fæj] as such in fine [fæjin] and fight [fæjít]. The numeral {5} is then used to replace the sound [fæj] as follows; 5n-fayini ‘fine’ and 5t- fayithi ‘fight’. The numeral eight {8} [eit], pronounced as [eit] in Zimbabwean English is also used in Chinese, Yang (2007) gives the example of {88} [bābā] as used by the Chinese for ‘bye-bye’ [bāba] in English because {8} in Chinese is pronounced as [bā] which maps on to ‘bye’. However, in S’ncamtho only its last two phonemes [it] are used to map sounds and the number is used to represent the two which form part of its phonemes in Zimbabwean English. Examples of words with the [jit] sound are [nait] ‘night’ [najit] and [raít] ‘right’ [rajit], and the numeral replaces [jit] as in na8 and ra8 respectively. The numeral {8} is also added to the numeral {9} [nain] pronounced as [nain] to write the word [nait] ‘night’ [najit], the sounds [na] are taken from the numeral {9} and mapped on to [na] in the word [najit]; both numerals share the sound [ji] and the final sound of the numeral {8} [it] maps on to [it] the final sound of the word [najit] and the numerical glyph is 98-night. The numeral {9} is also used alone on the word ‘night’ as in 9t ‘night’. The final sound of the numeral {9} [n] is also mapped on to some words which have a similar ending such as [main] ‘mine’ [majin] and [fain] ‘fine’ [fajín] to create the glyphs my9 ‘mine’ and fy9 ‘fine’. The first two syllables of the numeral {9} [najan] are used in the writing of the S’ncamtho word for ‘fool’ isinayi [isinaji] and the glyphs are isi9-isinayi ‘fool’.

The mapping of numeral sounds and parts of them onto sounds in words is an instance of relational framing whereby the matched sounds are attributes shared by the numerals and the words, and this makes the matching and the final glyphs in writing instances of attributional metaphor. The equivalence is in the sounds wherein the sounds are transferred to the function of glyphs, and this creates both phonetic and grapheme numerical metaphors.

5 Numerical image schema in S’ncamtho metaphors

Numerals are used not only in S’ncamtho glyphs but also in mapping onto the environment using their attribute of shape. This forms the class of structural numerical metaphors in S’ncamtho. The mapping of images across concepts is called image schema. McVee et al. (2005: 535) point out that, schema is organising structures that mediate how we see and interpret the world. They further argue: ‘a schema stood between or mediated the external world and internal mental structures; a schema was a lens that both shaped and was shaped by experience’. Numerical shapes are used as image schema in S’ncamtho to express human bodily shapes and human emotions, experiences and conditions. Numerical shapes are used as vehicles to communicate human experiences. Physical attributes of numerals are used as vehicles to express human experiences and attributes, Murphy (1996: 175) notes that: ‘in verbal metaphor, there are usually two explicit parts: a topic, which is the entity being talked about, and the vehicle, which is the metaphoric material being predicated of the topic.’ Table 1 below gives some numeral shapes used as metaphor vehicles for topics in S’ncamtho.

Ndlovu (2018b) identifies sex and sexuality as one of the common topics in S’ncamtho and it is no surprise that the numerals {6, 8, 9 and 11} are used to represent human sexuality, and they all map on to human female sexuality as in the shape and figure of women’s breasts, bums and genitalia. Shapes of different numerals are also mapped onto corresponding situations, and the numerals represent the situations metaphorically. Numerals form part of youth culture primarily through schooling. Some numerals are used as euphemisms, for example Z3 which is a brand of BMW car, is used to name HIV, where the numeral {3} maps on to the number of letters. The link between luxury cars and HIV is the phenomena of ‘sugar daddies’ that drive such cars and are thought to spread HIV. Euphemisms are common in S’ncamtho because of the association of youth varieties with tabooed topics (Hurst and Buthelezi 2014).
6 Numerals as cross-domain mappings in S’ncamtho

Numeral shapes are not the only numerical mappings in S’ncamtho metaphors, there are other relational mappings that involve numerals. The use of numerals in one domain can be mapped on to another domain. Lakoff (1993: 207) posits that what constitutes a metaphor is not any particular word or expression. It is the ontological mapping across conceptual domains, from the source domain of, for example, weather – mapping

| Table 1: Numerals shapes used as attributional metaphors in S’ncamtho |
|-----------------------------|---------------------------------|-------------------------------|
| **Numerals** | **Structural attributes** | **S’ncamtho metaphorical referent** |
| 9 | Bigger round top and flat bottom | A lady with a big bust and a flat bum |
| 6 | Bigger round bottom and flat top | A lady with a big bum and flat bust |
| 8 | Round and even distribution between top and bottom with a thin centre | A lady with an evenly distributed figure between bust and bum having a slim waist |
| 6&9 | The numeral six is like the numeral nine turned upside down | Used to express similarity between concepts |
| 101 | The numeral zero is the odd one out and trapped between the two ones | Used to express a difficult situation whereby the zero is in a difficult situation |
| 99 | If the first nine is turned round the numbers’ tops appear to be facing each other head on | Face to face confrontation |
| 11 | Two vertical lines with a gap between them | Female genitalia, the two ones represent the labia minora and the gap between them; the vaginal orifice |

| Table 2: S’ncamtho cross domain numerical metaphors. |
|-----------------------------|-----------------------------|---------------------------------|-------------------------------|
| **S’ncamtho numerical metaphor** | **Gloss** | **Source domain and meaning** | **Target domain mappings** |
| 0-0: yizero zero | It is zero-zero | Soccer – a 0-0 score line means no team won | Used to describe phenomena whereby both parties lose and there is no winner. |
| 10-0: ukuthayatheninothi | To beat ten scores to zero | Soccer – a 10-0 score line is an easy win with no strong challenge from the loser | Used to represent situations whereby one person is out-smarted or cheated. |
| 0: zero | Zero | Arithmetic – meaning nothing | Used to express nothing going well or nothing gained |
| 1: amawani | Ones | Arithmetic/number line – one is the lowest on the number line | Used to express low spirits |
| 1 and 2: uwanilothu | One and two | Arithmetic – progression from the first number to the second | Excreta- here passing urine is seen as the start of a progression which should end with faecal matter, hence urinating maps on 1 and defecating maps on to 2 |
| 2 × 2: thubhayithu | Two by two | Automobiles – a two wheel drive car | Human transportation- the two wheels map on the feet and walking is referred to as 2 × 2. |
| 4 × 4: fobhayifo | Four by four | Automobiles – a four wheel drive car | Human transportation- the four in 4 × 4 maps on to the four wheels of a car and driving is referred to as 4 × 4. |
| 18: ieyitini | An 18 | Demography – 18 years is the legal age of majority in Zimbabwe, an 18 year old is an adult with a right to privacy | Sanitation- privacy of adult rights is mapped onto the privacy in toilet use and 18 is used to refer to a toilet. |
| 4-5 | Four-five | Armoury – a 4-5 is a hand gun | Human sexuality- the shape and size of the hand gun maps on to the human penis and it is called a 4-5. |
cold to the feeling of being indifferent towards someone or ignoring them. Here a system of numerals in one domain is transferred to another. Gentner et al. (2001: 200) argue:

According to Structure-mapping Theory, such relational metaphors convey that a system of relations holding among the base objects also holds among the target objects, regardless of whether or not the objects themselves are intrinsically similar. The centrality of relations during metaphor comprehension has been confirmed by a number of studies. For example, people’s interpretations of metaphors tend to include more relations than simple attributes, even for statements that suggest both types of commonalities.

This class of S’ncamtho metaphors deploys relations, not attributes like shape, and this is done using domain specific experiences of numerals. Lakoff (2006: 232) avers: “Metaphors are mappings across conceptual domains […]. Mappings are not arbitrary, but grounded in the body and in everyday experience and knowledge”. Table 2 below gives some S’ncamtho numerical metaphors created through cross domain mappings.

Youth, especially males, are also interested in topics such as soccer and motoring, and these domains are sources for most of the numerical metaphors in Table 2 above. Numerals used to express quantities and qualities in sport and motoring are deployed as metaphor vehicles to express topics in human nature and experience. Youth also process arithmetic and use it to relate numerals to life experiences. Barnes-Holmes et al. (2004: 186) point out that: ‘given an appropriate history of multiple exemplar training RFT suggests that verbally-able humans are capable of responding to arbitrary relations between and among stimuli that is, relations not defined by the formal properties of the stimuli involved’. Values and ranges of numbers are related to values and ranges in life to create correspondences on which the numerical metaphors are based. Some numerals are used as part of expressing concepts such as adulthood. The numeral 18 carries the meaning of adulthood and the concept is extended to cover privacy which is a feature of adulthood.

7 Conclusion

Youth languages thrive on lexicalisation and they employ different strategies to lexicalise and increase their lexes. The lexicalisation and over lexicalisation create abundant metaphor in youth varieties and there are several strategies of metaphor conceptualisation. Metaphor in youth varieties is created from youth language practices and this has seen many metaphors created based on education, technology and urbanisation. Arithmetic learnt at school has provided S’ncamtho with vehicles to derive both attributional and relational metaphors using numerals. Sounds in numbers are mapped on to sounds in words, with the matching results in numeral glyphs replacing letters to shorten writing. Sound based matches use sound correspondence as a metaphorical attribute to create numeral glyphs and metaphors in writing. The need to shorten writing is necessitated by new media which has limited writing space, and it is also expensive to write long texts. Numeral shapes are also used to derive attributional metaphors in S’nccamtho where individual and combinatorial shapes of numerals are used to derive correspondence to human shapes and experiences. Some numerals are also used across domains to create relational metaphors.

References


