South African Sign Language

School of Literature, Language and Media
University of the Witwatersrand

A Preliminary Description
of
South African Sign Language Syntax

Submitted by Donovan Wright
388555

A Dissertation submitted in fulfillment of the requirements for the Degree of Master of Arts (by dissertation)

Supervisors:

Dr. Ruth Morgan Dr. Andrew van der Spuy

23rd March 2017

This study is a preliminary investigation into the syntax of South African Sign Language. Utilising narrative data within a case study approach, signing is observed and analysed in terms of Radical Construction Grammar. An emphasis is placed on signs as form-meaning pairings, in which information of form is drawn from previous research on the phonology and morpho-syntax of signed languages. Meaning is explained within the same sphere, drawing on established literature regarding meaning in signed languages – with the addition of Mental Space and Conceptual Blending theories. The aim is to describe the signing elicited as in-depth as possible while covering a broad number of relevant aspects. The efficacy of Radical Construction Grammar as a theoretical framework in signed language is also considered. Results include descriptions of different construction types and a holistic view of signing. Schemas are proposed for common constructions, and Radical Construction Grammar is posited as a viable alternative to a traditional understanding of syntax.

Acknowledgements

I owe the sincerest gratitude to my supervisors Dr. Ruth Morgan and Dr. Andrew van der Spuy for their guidance, encouragement, and invaluable counsel. Thank you for keeping me excited, and for every push when it was needed. Without your collective expertise, humour, and tremendous patience, this dissertation would not have been possible.

I would also like to extend my appreciation to Dr. Michiko Kaneko for always encouraging curiosity and fostering productivity. I am grateful for every conversation at the threshold of your door.

Finally, I must thank John Meletse for providing me with such rich data to work with, in which I not only observed for its syntax, but for its beauty. For his willingness to meet time after time and discuss the data with me and share his insights, I am extremely thankful.

To all those who listened to my ramblings, asked a question, or provided an answer - Thank you.

DECLARATION

To whom it may concern

I, Donovan Wright, declare that this dissertation is my own work. It is being submitted for the degree of Master of Arts (by research) in the field of South African Sign Language at the University of the Witwatersrand, Johannesburg. To the best of my knowledge, it has not been submitted before in part or in full for any degree or examination at this or any other university.

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23rd DAY OF March 2017

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List of Abbreviations

In the order they appear.

SASL	South African Sign Language
LOLT	Language of learning and teaching
Auslan	Australian Sign Language
ASL	American Sign Language
BSL	British Sign Language
ISL	Israeli Sign Language
NMF	Non-manual features
ABSL	Al-Saayid Bedouin Sign Language
S O V	Subject, Object and Verb respectively. Combinations are hyphenated e.g. S-V-O
RCG	Radical Construction Grammar

Notations

[N]	Noun
[PRN]	Pronoun
[V]	Verb
[ADJ]/[A]	Adjective
[NP]	Noun Phrase/Construction
[DET]	Determiner
[VP]	Verb Phrase/Construction/Predicate
[SBJ]	Subject
[PRED]	Predicate Construction
[MODAL]	Modal verb
[ADV]	Adverb
[R-Locus]/[R-loci]	Referential space associated with a referent (see 2.1.1)
[CONSTR]	Construction

[CONJ]	Conjunction
[RHET]	Rhetorical Question
[ANS^{RHET}]	Answer to Rhetorical Question

Glossing Conventions[1]

Example	Explanation
CAT	A single uppercase English word identifies a single sign. Using a gloss of a sign does not necessarily mean that the sign has the same morphological, syntactic, or semantic characteristics as the English word.
OH-I-SEE	Uppercase English words separated by hyphens also represent a single sign.
C-A-T	Hyphens between uppercase the letters of English words indicate a sequence of alphabetic character signs used to spell a word.
PRO.1	'.1' indicates the first person form. In this case, the sign is the first person singular pronoun. 2nd and 3rd person can be conveyed in the same way. POSS can be used for possession.
CL:person-walking	CL: indicates the use of a classifier construction. Information to follow is an English description of the classifier meaning.
CA:cat-licking-paws	CA: indicates the use of constructed action. Information to follow is an English description of the action's meaning
[1]ASK[2]	Superscript [1] and [2] indicate locations in space (previously ascribed). They occur before or after signs moving to or from these spaces to show the start and end points of the sign.

[1] Basic Glossing conventions adapted from ASL notations used by Liddell (2003:363) and Neidle (2002). This list includes only those necessary to comprehend those used within this dissertation.

IX	IX indicated the use of indexical signs (See 2.1.4).
;	A semicolon between more than one of the above notations indicates simultaneous production of both.
!SIGN!	A sign occurring between two exclamation marks is marked for emphasis (it may be signed faster or larger than typical production).
____t CAT	A line above a sign/s indicates non-manual features occurring over the sign/s. Non-manual notations used are specified below.
fr –	Frown
t –	Topicalised (raised eyebrows and possible widening of the eyes)
yes-no-q –	Yes/No Question (furrowed brows and possible head tilt)
wh-q –	WH-Question (raised eyebrows and possible head tilt)
rhet –	Rhetorical Question (raised eyebrows and possible head tilt)
rb –	Raised brows only
poke –	Poking ones tongue out the mouth
neg –	Negation (furrowed brows; head shake)
nd –	Head nod
cl –	Closed eyes

Chapter 1: Introduction

The purpose of this study is to accurately describe the syntactic features of South African Sign Language (SASL). Among the very few articles available concerning SASL, the focus tends toward education policy and the cultural aspects of the Deaf community (Penn & Reagan, 1990; Storbeck et al., 2009; Reagan, 2008). Of the few studies investigating SASL, even fewer have attempted to document the underlying features of the language (Penn & Reagan, 1994; Aarons & Morgan, 1998). Any descriptions of SASL syntax thus far have been relatively brief and have not been developed in recent years. It is my hope that this study facilitates further study in the field of SASL linguistics. By looking at SASL under the framework of Radical Construction Grammar, the intention is to provide an understanding of both the foundational and intricate features of SASL.

The key goals of this study are to (i) Describe common constructions found within SASL, in which every contributive aspect is addressed and (ii) propose schemas of these constructions as understood under Radical Construction Grammar. A supplementary methodological goal exists, in which the efficacy of the theoretical framework and its application to SASL is to be determined.

The South African Constitution (Section 5(a)iii) states that a Pan South African Language board must promote, and create conditions for, the development and use of sign language, Khoi, Nama and San languages (1996). SASL is not currently recognised as one of South Africa's official languages and is not taught in public schools. It is, however, recognised for use as the language of learning and teaching (LOLT) of Deaf learners by the South African Schools Act 84 of 1996. In 2009, the status of SASL as a school subject was raised in the Pietermaritzburg High Court in the case Springate and Others v the Minister of Basic Education and Others. The Department of Basic Education was instructed to develop South African Sign Language as a school subject. As a result of this, it was decided that a curriculum management team would be appointed to develop an SASL curriculum for grades R-12. The team was appointed in March 2010 and began developing a framework based on the English Home Language

Curriculum and Assessment Policy Statements.[2] This was completed by the end of 2013. Only in 2015 was this curriculum implemented – stemming from a court case that took place six years prior. There is a dire need for textbooks and literature pertaining to SASL at this time. It is a possibility that this study will be an initial step in documenting the language in a linguistic light, facilitating growth in SASL research and educational material development, ultimately aiding in granting SASL a status equal to that of the many spoken languages in South Africa.

To understand exactly which syntactic features are likely to be found in signed languages, the syntax of well-documented sign languages will be noted when applicable. Research into Nicaraguan (Nicaraguan Sign Language Handbook, 2013), American (e.g. Liddell, 1990;2003), Australian (e.g. Johnston & Schembri, 2007), British (Sutton-Spence & Woll,1999), Israeli (Meir & Sandler, 2008) and Al-Saayid Bedouin (Sandler et al., 2005) sign language will be drawn on to understand how traditional linguistic concepts have been applied to manual languages. This grants a starting point to understanding the syntax of signed languages while simultaneously creating a platform for comparison.

As literature concerning SASL is scarce, any necessary theory or concepts will be utilised from studies pertaining to established signed and spoken languages and presented, when applicable, within the proposed methodology and analysis sections.

In Chapter 2, a short literature review will be presented, in which research into signed language will be outlined. I reserve much theoretical discussion and explanation – as well as some research into signed language - for later chapters, in which these discussions are far more applicable and directly relevant. In Chapter 3, the methodology of this study, including the theoretical framework, is explained and justified. This study will adopt a framework of Radical Construction grammar. Many previous studies that have focused on investigating the linguistic building blocks of signed languages have been predominantly descriptive, assuming as little as possible without evidence, and take no specific theoretical stance. Others take on a traditional generative theoretical view, following Chomsky (1965,

[2] CAPS (or Curriculum assessment policy statement) is a policy statement for learning and teaching in South African Schools and pertains to protocol for teaching and assessment from grades R-12.

1981, 1995) or functionalist/cognitive approach. In Chapter 4, I analyse and explain small, simple constructions; and Chapter 5 looks at larger, more complex constructions holistically. Finally, conclusions and recommendations for future research will be discussed in Chapter 6.

Chapter 2: Literature Review

In this chapter, an overview will be given regarding previous research on signed language grammar and syntax. I reserve more applicable research and theory for Chapter 3 and 4, and introduce it only when appropriate to specific matters of discussion. The aim is not to obscure the theory and findings of previous research with the specific application of theory within this study – while also ensuring this research has not been overlooked. This chapter serves to show what research has been done and where previous models of grammar in signed languages face problems. In Chapters 3 and 4, these issues are addressed from a different viewpoint – that of Radical Construction Grammar. Traditionally, a syntactic description of language consists of describing its constituents, and thereafter, how they are combined to form meaningful sentences. The identification of lexical categories in signed language, sign order, and sentence types are discussed here.

2.1. Lexical Categories

In spoken languages, sentences are constructed from various "parts of speech" such as nouns, verbs, adverbs etc. When discussing signed languages, this term is not appropriate as production of the language is not *speech* per se. These elements will therefore be referred to as lexical categories. Unless otherwise stated, reference to spoken language and examples thereof will be provided in English. The following subheadings will address several traditional lexical categories (namely nouns, verbs, adverbs, adjectives and determiners) and the methods in which they are identified. Conventional methods of identifying constituents will be described for each category before introducing some of the methods used for signed languages. As will be explained later in 3.2, strict adherence to these methods of identification (and lexical categories themselves) is critiqued. The following sections serve to show which methods of identification have been used for lexical categories in signed languages.

2.1.1. Nouns

Nouns are lexical items traditionally used to refer to people, places, objects or abstract ideas. They provide the arguments of verbs in sentences. Nouns are also used as adjuncts (or non-arguments) of the verb, e.g. the place in which the action occurred.

There are various criteria for determining lexical categories. Semantically, it is understood that nouns are generally entities, verbs are actions etc. with few exceptions. Morphologically, certain lexical categories can take on inflections or derivations. On a morphological level, prototypical nouns are traditionally capable of taking on a plural form in English. For example, plurals in English are created by the addition of an affix to a noun such as –s. Syntactically, lexical categories can be identified by their position relative to other lexical items within a configuration or mutual exclusivity.

Nouns are pluralised in signed languages in different ways to that of spoken languages. In Australian Sign Language (Auslan) as well as American Sign Language (ASL), a quantifier sign such as MANY or a number sign such as FORTY may be used to indicate plurals (Johnston & Schembri, 2007; Schwager & Zeshan, 2008). Consider the Auslan example below:

1. FEW PEOPLE EXERCISE EVERY-DAY

   Few people exercise daily.

This, however, is not always the case. As discussed later in 4.1.1.1, certain nouns are repeated with slight changes to the location of the sign to show pluralization (Johnston & Schembri, 2007; Johnston, 1989).

In terms of syntactic evidence, English nouns are typically identified because they can follow determiners such as *the, this* or *that* (Quirk et al., 1985). Although determiners are commonly found accompanying nouns in sign languages, such as ASL, they are typically context dependent and not obligatory (Neidle et al., 2000; Bahan et al., 1995). Determiners in sign languages typically take the form

of pointing signs,[3] which can create problems in identification and analysis if the various other uses of indexing are not understood. How indexes are used as determiners is discussed in 2.1.4 This discussion will presently focus on nouns and the use of indexing in relation to nominal and pronominal items.

Sutton-Spence and Woll (1999) liken indexing to the linguistic concept of proforms in spoken language. Proforms are lexical units that replace something previously identified and rely on that prior information for their meaning. In English, pronouns are the most common of proforms where one can refer to a previously identified person or object as "he/she" or "it". The use of these proforms (also commonly referred to as "indexes") has been well documented in British Sign Language or BSL (Sutton-Spence & Woll, 1999). Signed languages use proforms in a similar manner by placing objects or persons or even abstract concepts in space (also known as R(eferential)-loci). To refer back to the referent later, the signer points to the space previously assigned to that noun. This kind of indexing has been identified in other sign languages, including Israeli Sign Language (ISL) (Meir, 2002; Aronoff et al., 2004), Irish Sign Language (Saeed & Leeson, 1999) ASL (Neidle et al., 2000; Bahan et al., 1995) and Auslan (Johnston, 1989).

Pointing is also a general-purpose gesture used to refer to things that are in the immediate environment, just as non-signers might do. Due to this phenomenon, which appears to be characteristic of the modality, pointing signs should be given close attention in an investigation such as this. With the ability to utilise the neutral space to accommodate referents, there is no exact sign that would equate to the English "he" or "it" but rather an index to a space previously assigned to a person or object. In this way, the locations of pronouns or nominal references are not necessarily fixed when out of context. Consequently, the arguments of a sentence may also be established by use of indexing. This will be further discussed when addressing verb agreement below.

[3] Also commonly known as, and hereafter referred to as "index". (Glossed as IX. Pronominal indexes are glossed as PRO.1/2/3 for first, second or third person respectively. Similarly, possessive pronouns are glossed as POSS.1/2/3.)

2.1.2. Verbs

Verbs are typically understood as describing the actions of nouns within a sentence. The morphological criteria for English verbs are whether their base form can take on inflections such as the perfect/passive suffix –*n*, the past-tense suffix –*d*, the present-tense suffix –*s* and the progressive participle suffix –*ing* (Radford, 2004). For example, the base form of the verb *show* can take on each of these inflections as *shown, showed, shows* and *showing* respectively. Of course, many verbs in English are irregular and base forms may be identical to inflected forms (e.g. teach, hit).

In signed languages, these types of inflections do not generally occur by use of affixes. Although affixes have been identified in ASL and ISL (Aronoff et al., 2004) they are fairly rare and beyond the scope of this study. After briefly illustrating how the same inflectional morphology used for spoken language is not ideal in identifying verbs in sign languages, another method will be considered.

In ASL, Auslan and Nicaraguan Sign Language (ISN), within a sentence where tense has been previously established (by use of a separate lexical item such as YESTERDAY or BEFORE) the base form of the sign will be used (Baker & Cokely, 1980; Johnston, 1989; Nicaraguan Sign Language Handbook, 2013). Below is an example from ASL illustrating the verb in base form and a separate lexical item to convey tense:

2. YESTERDAY PRO.1 SHOW PRO.3

I showed him yesterday.

As seen above, spoken languages add affixes to a word stem, or modify it in some other way, in order to convey extra information. In ASL and other sign languages, a complex morphology exists to achieve that same goal in the form of inflected verbs – whereby the sign stem (that is, the phonological form) is inserted into one of many movement contours (Emmorey, 1996). In the case of continuative verbs in ASL, a circular movement can be added to the base sign (Klima & Bellugi, 1979). This is one of many morphological inflections verbs can take on to add information. Others include habitual inflections (in which the movement of the sign is repeated several times) and reciprocal inflections (in which the

movement is produced with two hands simultaneously in opposite directions) (Emmorey, 1996). In ASL, signs can be inflected to show temporal aspect as well as the number of recipients of the verb (Klima & Bellugi, 1979; Emmorey, 1996). The latter is far more likely in cases of directional verbs such as SHOW, ASK or HELP. These, however, do not account for all verbs types in sign languages. Carol Padden's (1983) classification of verbs in ASL is widely accepted by sign language researchers and has been used in studies of ISL (Sandler & Lillo-Martin, 2001; Meir, 2002; Aronoff et al., 2004) and Auslan (Johnston, 1989). This will be further discussed in 4.1.2.3. in which I maintain Padden's (1983) classification of plain, spatial, indicating & depicting verbs, to be viewed under Radical Construction Grammar on a function-based approach to predicates.

2.1.3. Adjectives & Adverbs

Adjectives and adverbs describe nouns and verbs respectively. In English, syntactic evidence is used to identify these categories. For instance, gradable adjectives and adverbs such as *silly* or *carefully* can follow the word *very* and a word that can be inserted into the frame *He behaved* _____ is certainly an adverb.

In ASL, adjectives typically appear before nouns. Degrees of gradable adjectives are usually represented emphatically through non-manual features (NMF). If an adjective appears after a noun, it is performing the role of the predicate as seen in the case of *The ball is green,* signed as BALL GREEN (Liddell, 1990).

Adverbs in sign languages are usually incorporated into the predicate rather than existing as a separate lexical item. For example, to *drive recklessly* or *stand for a long time*, the verbs *drive* or *stand* would be produced with modifications to express that information. These would be modifications of movement or the additions of NMF (Johnston, 1989).

2.1.4. Determiners & Quantifiers

Determiners and quantifiers fall under the category of functional rather than lexical as they serve a more grammatical function than nouns or verbs, which provide content. Grammatical function refers to a lexical item's role as expressing a grammatical relationship between other lexical items, rather than

holding intrinsic meaning. In English, determiners are words such as *the*, *that*, *a* or *an*. Determiners provide clarity in reference to nouns in the sense that *a book* differs significantly from *the book* or *that book.* When using the definite article *the*, it is expected that the recipient of the utterance can identify a definite referent, whereas with the use of the indefinite *a,* it is not (Hudson, 1984). *As* stated earlier, pointing signs or "indexes" are used as determiners in signed languages such as ASL and Auslan but, unlike English, do not have to occur before the noun (Bahan et al., 1995; Johnston & Schembri, 2007). In ASL, they can be produced before or after the noun. If the noun is a one-handed sign such as MAN, the non-dominant hand can produce the determiner while the dominant hand simultaneously produces the noun sign (Zimmer & Patschke, 1990). Determiners, too, can be identified by means of syntactic evidence. In ASL determiners are identified by their position in relation to the noun. If the determiner precedes the noun, the noun phrase is definite. In indefinite noun phrases, the determiner is typically omitted (Bahan et al., 1995). Below are examples from ASL to illustrate this distinction.

3. MARY LOOK-FOR IX BOOK

   Mary is looking for that book.

4. MARY LOOK-FOR BOOK

   Mary is looking for a book.

Quantifiers do precisely what their name suggests and aid in quantifying nouns. Words such as *many, few or all* are used in English and placed in front of nouns in a sentence. In Auslan and ASL, quantifiers are often used before nouns to show the plural form, as nouns themselves often do not modify for plurality in these languages (Zimmer & Patschke, 1990; Johnston & Schembri, 2007).

2.2. Sign Order

Much like the variety of word order we find across spoken languages, signed languages differ in their order of constructing sentences (Meir & Sandler, 2008). Typological research into spoken languages has

shown that all possible combinations of the subject, object, and verb are found in the world, with some more frequent than others. SOV and SVO are found to be far more common (Tomlin, 1986). Sandler et al. (2005) observed that adult signers of Al-Saayid Bedouin Sign Language (ABSL) produced sentences following the structure of S-O-V most commonly. Having established certain lexical categories, it is possible to detect, by means of semantic and contextual evidence, the subjects (S), objects (O) and verbs (V) within a given sentence.

Sutton-Spence & Woll (1999) state that sign order in BSL is not necessarily fixed. That is not to say that signs are produced at random and the recipient is to make out the meaning on their own, but rather that signed languages do not stress word order to the point that spoken languages such as English do. We do not yet know, however, whether SASL is flexible regarding sign order, but some observations of sign order in SASL are made within this study. Johnston & Schembri (2007) also note that, although there seems to be a trend of S-V-O in Auslan, BSL and ASL, we cannot definitively say that they follow that structure. The reason is that these sign languages adhere to this structure predominantly in declarative sentences without topicalisation or use of their diverse productive lexicons. Johnston & Schembri (2007) do not support the view that all sentences that do not obey the S-V-O structure are a modified or a variation thereof. They maintain that sign languages share structural features with both S-V-O languages as well as more intonational, free word order languages. Liddell (2003) supports the view that sign languages (specifically ASL) do not follow a strict S-V-O or S-O-V system and that NMS, topicalisation and negation play large roles in how sentences are constructed. It is possible, however, to state how arguments and verbs interact in closed declarative sentences as a reference point for how different sentence types are constructed and used.

2.3. Sentence types

Different sentence types may change the order and manner in which the constituents of a sentence are combined and what function they serve.

There are four main types of sentences in any language: declarative, interrogative, imperative and exclamatory (Wierzbicka, 1996). Declarative sentences convey information by making statements. Interrogatives request information by asking questions. Imperative sentences make requests or commands. Exclamatory sentences show emphasis or emotion. These sentences are not exclusively

exclamatory and can be declarative, interrogative or imperative sentences with emphasis or exclamations of emotion.

The sign order of declarative sentences can change in the case of topicalisation. Topicalisation occurs when attention is drawn to specific information within a sentence by bringing it to the beginning of the sentence (Kroeger, 2004).

Sign languages use this structure quite freely: It has been noted in ASL (Emmorey, 2002), ISL (Meir & Sandler, 2008), BSL (Sutton-Spence & Woll, 1999) and Auslan (Johnston & Schembri, 2007). Topicalisation occurs by use of NMS – raised eyebrows and a forward head tilt. In sign languages, the structure follows a kind of "topic – comment" structure where a topic is introduced, and thereafter something is said about it. Below are examples from ASL and Auslan.

5. t

MARY JOHN LOVE (ASL)

As for Mary, John loves her.

6. t[4]

SPORT EVENT PRO-1 ENJOY RUGBY (Auslan)

As for sporting events, I enjoy rugby.

Although ASL sign order is considered to be S-V-O, topicalisation allows for the object to precede the subject resulting in O-S-V structure as seen above in example 5. In both ASL and Auslan, entire phrases can be topicalised.

[4] NMF glossed as "br" in Auslan. 't' has been used to keep glossing consistent with conventions provided.

Johnston & Schembri (2007) comment on the differences in the structure of Auslan sentences in the various sentence types. They note that although in English, the main difference between declarative and interrogative sentences is the order of constituents; in Auslan it is quite different. A declarative sentence and a yes-no interrogative may have identical sign order, yet the interrogative has added NMF – namely the addition of raised eyebrows and a forward head tilt (Johnston & Schembri, 2007). Johnston & Schembri use the following example from Auslan:

7. LEARN AUSLAN PRO-3

She is learning Auslan.

8. yes-no-q[5]

LEARN AUSLAN PRO-3

Is she learning Auslan?

Content interrogatives use NMF too, but the brows are furrowed as opposed to raised – much like SASL appears to use. Question signs such as WHAT or WHERE are required and placement of these words within a sentence is different across sign languages. Question words are also used in declarative sentences, in a sense, by use of the rhetorical question. This has been documented in Auslan and ASL (Johnston & Schembri, 2007; Baker & Cokely, 1980). Imperatives are commands or requests directed at a person and so often do not contain an actor noun. In Auslan, it is possible to mark imperatives by use of stress/emphasis on signs and NMF, such as direct eye gaze at the recipient and frowning.For example:

9. fr[6]

SIT THERE

[5] The Auslan gloss for the NMF used in this example (from Auslan) is 'br+hlt'. 'yes-no-q' has been used to keep glossing consistent with conventions provided.

[6] The Auslan gloss for the NMF used in this example (from Auslan) is '!'. 'fr' has been used to keep glossing consistent with conventions provided.

Sit there!

Exclamatory sentences in spoken languages are usually identifiable as the intonation, volume and stress may change depending on the emotion conveyed. This is congruent with signed languages such as Auslan, in which stressed signing and specific NMS will vary depending on the emotions conveyed.

Any further information related to signed language research will be introduced in an *ad hoc* fashion, when viewing signed language from the perspective of Radical Construction Grammar. Although some novel perspectives will be taken regarding sign language syntax, some terminology from generative approaches is maintained for clarity's sake. In Chapter 3, the theoretical framework and reasons for its application will be introduced and discussed; as well as theory and previous research relevant to this study

Chapter 3: Methodology

In this chapter, I will outline the methodology used in this study, from obtaining relevant data, to analysis, to theoretical and methodological issues surrounding the application of the study. The theoretical framework adopted in this investigation is that of Croft's Radical Construction Grammar (Croft, 2001). Considering this is merely a preliminary study into the syntax of SASL, recommendations for the replication and expansion of this study on a larger scale must be addressed. The methodology as it is discussed here is to be taken as a pilot to be used in future research.

This study utilises a short narrative provided by a single signer, aiming to observe any aspects of South African Sign Language syntax provided by the data. A case study method is used as the efficacy of the method is to be assessed. Although trends may exist across many signed languages internationally, this study attempts to view SASL with as few assumptions as possible – without disregarding the research of other sign languages or a typological perspective.

3.1. Theoretical framework

Following the work of William Stokoe (1960) the 1960's and 70's saw sign language researchers focusing on attempting to display signed language as a "real" language. In order to gain the recognition signed languages deserved, many studies into sign linguistics dealt with language universals and application of spoken language theory (Johnston & Schembri, 2007). Most prevalent at the time, Chomskyan generative theory (Chomsky, 1965) was the perceived benchmark to which signed languages needed to adhere. If signed languages were to be considered of equal value to spoken languages in terms of language status, as well as a valid area of research, a specific set of 'rules' for a signed language would need to be described. Chomsky's generative theory posits that the form of a language is best described without reference to its intended meaning or communicative function (Chomsky, 1980). The form of language structure, then, is best described by explicit statement of that language's rules. In Chomsky's view, linguists' focus must be on description of the rules of a language independent from any external factors such as cognition or social influences (Newmeyer, 1998).

Alternative theories, which reject Chomskyan assumptions, do exist. These are broadly referred to as cognitive and functionalist theories (Pfau, Steinbach & Woll, 2012). Functionalist theory posits that language structure must be described in relation to its function (Nichols, 1984). The linguistic elements that make up a language all have parts to play in a *communicative* context; and so a functionalist

description of language would define the various functions that occur, and also note which linguistic constituents perform these functions (Nichols, 1984). Investigations under a cognitive-functionalist approach take into account social factors, cognition, and semantic meaning of language; and observe interactions and tendencies with structure.

Cognitive linguistics (a branch of functional theory) endeavours to explain language by reference to cognition and the conceptualisation of meaning (Langacker, 2008; Lakoff, 1987). Within this approach, Langacker (1986; 1987; 1991) developed *Cognitive Grammar*, in which the key position is that "grammar is fully reducible to assemblies of symbolic structures". Cognitive grammar maintains that all that is required for language are symbolic links between phonological and semantic structures, or simply *form* and *meaning.* Ideas of syntax, morphology, and even lexicon are not to be considered as separate entities but rather as a continuum which is entirely explicable through the description of symbolic structures. According to Langacker (2009), grammar consists of constraints through the "content requirement", in which the only elements that may be ascribed to a linguistic system are:

i. Semantic, phonological, and symbolic structures.
ii. Schematizations of these structures.
iii. Categorizations of these structures.

In short, a linguistic system consists only of the aforementioned structures and one's mental organisation of these structures. Rather than a statement of 'language rules', a collection of form-meaning pairings, realised through schemas, equates to an understanding of a language's grammar. These pairings are learned through repeated exposure. A cognitive-functionalist approach is fundamentally usage-based. It holds the position that language can be seen as a system in which the primary function is communication. Since the late 90's, sign language research from a cognitive-functionalist perspective has been on the rise – moving away from generative grammar based studies (Johnston & Schembri, 2007). This is not surprising, considering the unique aspects of signed languages e.g. use of space, iconicity, simultaneity and productive lexicon (discussed below).

Developments in cognitive linguistics have led to the proposal of a grammar model known as Construction Grammar (Croft, 2001; Goldberg, 2006). This model subscribes to the cognitive grammar notion of form and meaning pairings realised and organised as schemas. These pairings are referred to as *constructions* and the grammar of a language consists of an accumulation of these individual

constructions. Various construction grammar models have been developed, however, only Croft's (2001) Radical Construction Grammar will be discussed here.

Radical Construction Grammar (hereafter referred to as RCG), following developments in Cognitive Linguistics, conforms to Cognitive Grammar's *content requirement* found above (Croft, 2001). Croft notes, however, that RCG does not depend on specific semantic theories or analyses put forward by Cognitive Grammar or the history of cognitive linguistics. The idea of a *construction* is maintained and Croft explains *the construction* in comparison to traditional componential models of grammar, outlines the shortcomings of the distributional method, and proposes RCG as an alternative.

As noted earlier, a construction is a pairing of form and meaning. Croft likens this relationship to that of a lexical item when viewed under a componential model. Both are links between a form (represented phonologically and syntactically) and a conventional meaning (semantic information). The traditional notion of lexical items, however, is that they are minimal units of syntax. Constructions, on the other hand, are complex and can consist of multiple syntactic elements. Constructions are also said to be schematic, abiding by Langacker's content requirement. Constructions are thought to be schematic – under both RCG and a broader understanding of construction grammar – as a response to traditional grammars' inability to account for idioms (Fillmore et al. 1988). Croft notes that various types of idioms are problematic to explain in terms of componential models in which: lexical items themselves are unique to an expression; syntactic rules of the particular language are not followed or; the idioms are rendered nonsensical without semantic context. Although formalist grammar does not require an explanation of the nonsensical idioms (provided they adhere to grammatical rules), Croft (2001) states that a theory of grammar should perceive these differences and be able to explain them. By schematizing constructions in the same way that one may understand idioms, all utterances can be included in the grammar of the language and explained in terms of that grammar.

Croft goes further to state that certain idioms contain their own unique syntax and can be seen to utilise different lexical items to convey a schema. He uses the example *The longer you practice, the better you will become* in which a condition and a comparison takes place. This can be schematised as *The X-er, the Y-er* where numerous items may constitute the variables. Within this frame, however, *The* does not behave as a typical definite article. Another example Croft provides shows an entirely unique syntax (alternatively viewed as agrammatical if not in such common use). The case of *second cousin three times*

removed in which the schema would be represented as *Nth cousin (M times removed).* This syntactic composition occurs nowhere else, but when represented as a schema, its function is clear. Finally, the schema *pull NP's leg* is understood as 'joke with NP', in which any noun phrase signifying a human may be inserted resulting in *Don't pull my leg* or variations such as *He was just pulling her leg*. This example illustrates how idioms may be semantically unique. The schematization of constructions allows for all utterances within a language to be included and explainable within the grammar.

This idea of constructions, although created to account for idioms, can be applied to any utterance of any language (Fillmore et al., 1988). A schematic representation of symbolic links between form and meaning (a construction) can account for different modalities, context, and pragmatics, because of how it is made up. Below is a visual representation of a construction as found in Croft (2001: 18).

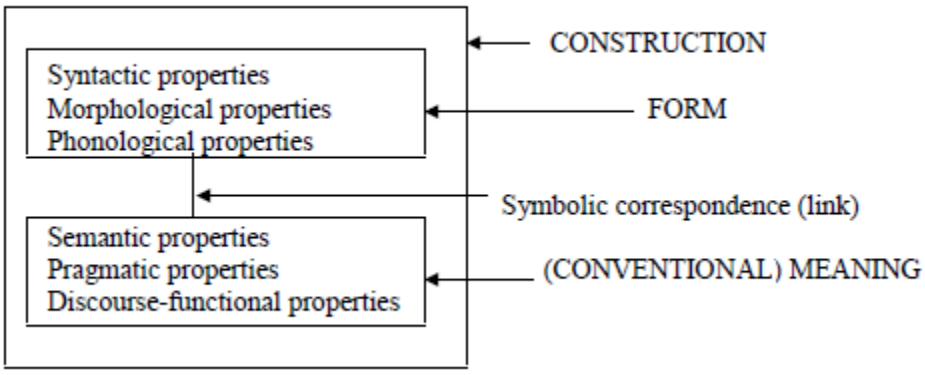


Figure 1: Representation of a construction.

As found in other construction grammars, the form-meaning pairs are symbolically linked through conceptual and semantic relations. As shown in the diagram above, the *form* of a construction takes on all aspects of syntax, morphology and phonology. The term *meaning* refers to any conventionalised function of the construction. This, naturally, includes its conventional semantic interpretation, as well as pragmatic and discourse functions. Constructions are therefore complex, especially considering that a construction may contain numerous lexical items or other syntactic units, which themselves are constructions in that they are fundamentally symbolic units. As RCG posits that constructions are the basic symbolic units of grammar, and that these constructions are complex in nature, RCG is a non-reductionist theoretical perspective.

3.1.1. The Distributional Method

Traditionally, linguists have analysed syntax by use of what is known as the *Distributional Method* or *Distributional Analysis* (Croft, 2001). Based on the assumption that language is assembled out of atomic grammatical primitives, this method aims to define syntactic categories (O'Grady, 1997; Haegeman, 1994). Syntactic categories such as nouns, verbs, adjectives, subjects and objects are assumed and can be defined by noting their presence or absence within utterances. To illustrate this, consider the utterances below:

1a. David is sad.

1b. *David sads.

2a. David is intelligent.

2b. *David intelligents.

3a. *David is cry

3b. David cries.

4a. *David is pray.

4b. David prays.

In these sentences, it can be seen that 1a and 2a are grammatically acceptable, and their (b) counterparts are not. That is, inflecting the predicates in 1 and 2 does not create grammatical sentences. In 3 and 4, predicates can take on this inflection but are ungrammatical when following the copula *is.* In this way, it can be said that *sad* and *intelligent* share the same distribution. The same can be said for *cry* and *pray.* Distributional analysis then allows for creating classes in which these words fit, namely adjectives and verbs. This kind of syntactic evidence strengthens as a category or class is found across the same distribution in several utterances. Of course, it is clear how this poses a problem to idiosyncratic utterances such as idioms. Croft (2001) also outlines why the distributional method is problematic cross-linguistically. In English, inflectional criteria such as those seen in the (b) utterances above are commonly used to differentiate between certain lexical categories. Not all languages, however, utilise morphological inflection. Many of the criteria used in English to establish syntactic categories are simply not present within other languages. Conversely, the types of utterances necessary to categorise parts of speech in other languages are absent in English. This problem is exacerbated when different languages do share utterances needed to provide syntactic categories, but have "wildly different distributions". This would equate to "wildly different categories" that are incomparable to English or other languages. Not only do distribution patterns differ across languages, but within languages themselves. Croft (2001) calls these "mismatches" and explains why this is a far larger theoretical problem than traditional grammarians admit.

Croft (2001 provides a case in which distinguishing two categories – as defined by the distributional method – is impossible given enough examples to illustrate various possible distributional patterns of those categories. Croft (2001) provides a simple example in which the distribution of direct object and obliques distinguishes them. For example:

5.a. Jade threw the ball.

b.The ball was thrown by Jade.

Direct objects occur following a verb, in an active voice, and lack any preposition, as seen in (5.a). Direct objects can also occur, as in (5.b), as subjects of the verb in the passive voice. Obliques[7], however, cannot occur in this manner. For example:

6.a. David spoke with a lisp.

*b.*David spoke a lisp.*

*c. *A lisp was spoken with by David.*

As seen in (6.b), obliques cannot occur without a preposition. Obliques are further distinguished from direct objects as they cannot take on the passive voice as seen in (6.c). The method therefore allows a linguist to distinguish between these categories based on these criteria. There are, however, noun phrases that occur post-verbally in the passive voice, without a preposition. There are also cases in which Obliques, in the presence of prepositions, can occur as passive subjects. Croft (2001: 35) provides the following examples:

7.a. Jack weighs 160 pounds.

*b. *160 pounds is weighed by Jack.*

8.a. Claude Debussy lived in this house.

*b. *Claude Debussy lived this house.*

c. This house was lived in by Claude Debussy.

The above examples show that the efficacy of the distributional method in determining and distinguishing categories, as well as prescribing distributional patterns based on frequency, is in question. Croft states that mismatches are the norm in languages, and that grammarians are fully aware of this problem, as seen as early as Bloomfield (1933) and Harris (1946; 1951).

[7] An Oblique is a nominal case that is used when a noun phrase is the object of either a verb or a preposition.

As stated earlier, the distributional method is validated if a category or class is found across the same distribution in several utterances. It follows that evidence to the contrary should weaken this method. Croft (2001) argues that the presence of these mismatches is exactly evidence to the contrary – and causes the distributional method to be circular in the following way:

> The distributional method is combined with the theoretical assumption that the categories/relations defined by constructions[8] are the syntactic primitives used to represent grammatical knowledge. Constructions are used to define categories – this is the distributional method. But then the categories are taken as primitive elements of syntactic representation and are used to define constructions – This s the syntactic model of representation. This approach is circular. It would not be circular if there were no distributional mismatches, because the facts of the language would then conform to the theoretical assumption. But the facts of language are otherwise [emphasis omitted]. Croft (2001: 45)

As an alternative to the distributional methods, Croft proposes the notion that there are no atomic grammatical primitives, and therefore that syntactic structures are not made up of these units. Categorisation as well as the relationships between these categories - stated as rules - are rejected. Instead, the most basic units of a syntactic representation are *constructions* (Croft,2001).

Of course, within everyday language, any realisation of these constructions will consist of parts. Croft acknowledges this, but states that these 'parts' are not of a categorical nature, and only exist within an individual construction in order to play a specific role. As the theory is non-reductionist, the 'smaller units' are defined only in terms of the larger whole. The perceived categories and relations of a construction are internal to that construction and are derived *from the construction itself*. These categories and relations are, therefore, construction-specific. Croft also notes that the mapping between words and constructions is many to many. Roles within constructions may be filled by various different words, or other constructions; and a single word or construction may find its place in various different constructions.

[8] Croft uses the term "constructions" in his discussion of the distributional method to refer to utterance types of all kinds. I reserve this term for discussions of these utterance types when viewed within RCG for clarity's sake.

Grammatical knowledge is understood in RCG as "knowledge of constructions (as form-meaning pairs), words (also as form-meaning pairs), and the mapping between words and the constructions they fit in." (Croft, 2001: 46).

A description of a language's grammar, it follows, would be explanations of classes of constructions, which would be language-specific. Furthermore, the roles that may be filled in those constructions and those elements/constructions that might fill those roles must be described. As the notion of a construction includes morphological information, a description of a language's morphology would also be necessary.

3.1.2. The Rejection of Syntactic Relations

Traditional theories of syntax all maintain that *syntactic relations* exist between categories (such as nouns, verbs, subjects and objects). Within RCG, Croft (2001) admits a syntactic relation only in the part-whole structure of the construction (between the construction and the roles that are filled within that construction). Croft challenges this existence of syntactic relations, stating that the evidence provided for syntactic relations is, in fact, evidence for semantic and symbolic relations instead. Below I will very briefly outline how Croft achieves this by reference to what he calls 'collocational' and 'coded' dependencies.

Collocational dependencies are constraints that exist in an utterance due to other words found in that utterance. This constrains what words may fit into that utterance in order for it to remain grammatical. Croft uses the example *The cherry trees* ***burst into bloom***. (Croft, 2001: 177). The noun found in the prepositional phrase (in bold) has a limited number of possibilities due to the verb used. *Bloom* and *flower* and *flames* are the only possibilities. This illustrates a dependency between this particular verb and a prepositional phrase. There also exists a relation, then, between the subject's noun phrase and this verb. It must be something that can flower or bloom. It is still the case, however that the Subject would necessarily be a combustible entity – therefore the constraint still exists between these constituents. Croft provides various examples through which he illustrates how these dependencies are, in fact, semantically based (Croft, 2001: 180).

9 a. **Mud oozed** onto the driveway.

b. ?*The **car oozed** onto the driveway

10 a. The **car started.**

b. ?***Mud started.**

Any restrictions of *mud* and *car* are based on the fact that mud is a viscid substance and a car is some sort of a machine. *Mud* or *car* might be replaced by *goo* or *lawn-mower* respectively in the grammatical sentences without any issue. This suggests these dependencies rely on a kind of semantic type. Croft states that these utterances are *semantically compositional*– the meaning of the whole is a function of the meaning of the parts that make up the utterance. In this way, RCG understands these collocational dependencies as semantic relations between the already symbolic form-meaning pairings that are lexical items.

Coded dependencies are understood as syntactic relations that occur due to the grammatical structure of an utterance. Croft provides the example of *She understands him.* (Croft, 2001: 176). In this sentence, it is assumed there are syntactic relationships between *she* and *understands* (subject relation), as well as *understands* and *him* (object relation). The evidence for these relations lies in (i) the position of the Subject and Object in relation to the verb, (ii) the case forms of *she* and *him* agreeing with the verb.

Under RCG the syntactic and semantic structure of a construction is illustrated in Croft's explanation of the construction as seen below (Croft, 2001: 21):

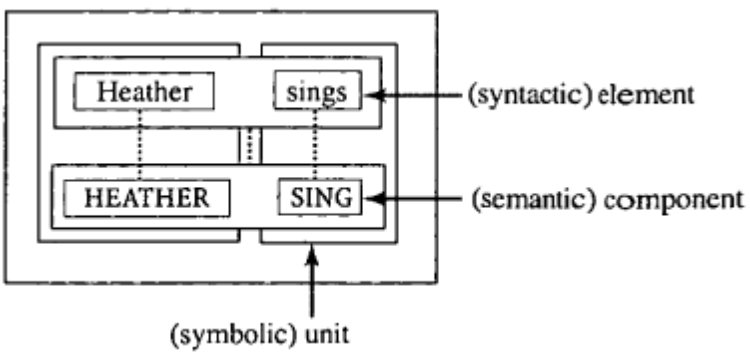


Figure 2: Elements, components, and units of a construction (Croft, 2001: 21).

Parts of the syntactic structure of a construction are referred to as *elements* and parts of the semantic structure are *components*.

Croft argues that these case markers, agreement markers etc. do not code syntactic relations or even syntactic information, but rather help identify elements within an utterance/construction, and show how the syntactic element corresponds with a semantic component. The dotted line in the figure above Croft refers to as the symbolic relation. A larger symbolic link, Croft says, also occurs between the entire syntactic and semantic structures whereas the link we refer to now is that within a symbolic *unit* (element and component).

3.2. Radical Construction Grammar and Sign Language

This study adopts Croft's Radical Construction Grammar (Croft, 2001) in an attempt to gain a perspective on SASL that is unlike traditional signed language research. This approach also allows for an observation of data without preconceptions such as what is regarded as a noun, verb etc. Van Trijp (2015) outlines the need for a reassessment of the most fundamental linguistic principles when looking at signed languages. He notes that because of the *coarticulation* (as noted by Emmorey, 2002) found within sign language, a traditional method analysing strings of separate lexical items is not sufficient. The iconicity found within sign languages and their natural use of space as a medium of communication causes problems for traditional linguistic methods of analysis. Van Trijp (2015) states that models of language need to adequately account for these aspects and that understanding how these are used for language is imperative in order to shed light on human cognition. As traditional methods fail the signed modality, sign language researchers are required to look elsewhere in order to find a theoretical perspective that can accommodate the peculiarities of signed language. Van Trijp (2015) suggests that construction 'grammar architecture' is a possible method of eluding these issues. A model that allows for information from numerous sources is best suited to the observation and analysis of sign languages. I believe Croft's Radical Construction Grammar is among the methods that have the potential to meet this need. The above points will be discussed in detail in 3.2, outlining how Radical Construction Grammar may tend to accommodate manual language.

From a broader constructionist approach, the notion of a construction that dispenses with the firm separation between lexicon and syntax is strongly capable of representing signs. Viewing signs as pairings of form and conventionalised meaning is attractive provided both can be specified. Within

the idea of *form* is syntactic, phonological, and morphological information. This is ideal for signs as these aspects are generally inseparable (see section 3.2.4 below). A benefit of including semantic and conceptual information within a syntactic description of a signed language is that conceptual space, in some instances, can map directly onto real space. By utilizing signing space, manual languages can convey information visually. Iconicity, metaphor, and metonymy in sign language can also be accounted for within a system that considers this semantic information. Before attempting to apply RCG theory to sign languages, both form and meaning (and as far as is possible, the mapping between them) within the modality must be understood.

In many spoken languages, the additions of prefixes or suffixes allow for morphologically complex words to be created. Sign languages, being based in the visuo-spatial realm, use a very different set of modifications to convey extra information. Johnston (1989) outlines the ways in which changes in handshape (the physical form of the hands), location (where the sign is produced), orientation (the direction of the sign), movement, and non-manual signals are used to modify signs in Auslan and other sign languages. These aspects of signing are conventionally known within Sign Language research as *Parameters* and are discussed below.

I follow Johnston's organization of morphology, which strays from the usual division of morphology into derivational and inflectional. This is because signed language's phonological features (that is, the combinations of distinctive features that make up a sign) can hold meaning in the same way that morphemes do. What equates to derivational or inflectional morphology in sign languages is the modification of the abovementioned parameters. This is also true of ASL (Klima & Bellugi, 1979; Poizner, Klima & Bellugi, 1990). This discussion of parameters and their modification is not yet viewed under the framework of RCG. Rather, this discussion aims to provide an understanding of how signed language *form* and *meaning* are achieved based on research of sign languages other than SASL.

3.2.1. Parameter Modification

3.2.1.1. Handshape Modification

The handshape/s of a sign can be changed to indicate plurality in a number of signs, as well as to modify pronouns to convey plurality or possession. For example, the sign WEEK in Auslan involves a

handshape with a single index finger moving over the other hand with the same handshape. The handshape of the dominant hand can be changed to that used in the numerical signs in Auslan such as TWO or THREE to convey two or three weeks (Johnston & Schembri, 2007). Of course, this is physically limited in that the highest number that can be displayed on one hand is nine. Thereafter, a separate lexical item would be needed. This kind of numeral incorporation has also been documented in ASL (Liddell, 1997). Despite lexical differences between sign languages, this modification appears to be present in a subset of signs. When signing plural pronouns such as BOTH-OF-YOU or US-FOUR, the number of referents can be incorporated into the sign in the same way in Auslan. Possessive pronouns generally maintain all the same features as nominal pronouns with the exception of handshape. Auslan uses indexes, which will be explained in detail later, for pronominal reference. By modifying the handshape to a fist, the pronoun becomes possessive in Auslan (Johnston, 1989).

3.2.1.2. Location Modification

The location of signs can be modified in ASL, Auslan and BSL (Liddell, 1990; Johnston, 1989) to show plurality by repeating the sign in several spaces along a line in front of the signer. Once again, this does not apply in all instances as some plural forms are represented by separate lexical items. The location of signs can also be changed to a body part of the signer to represent that actual body part. For example, an Auslan signer might move the sign for TATTOO or OPERATION to the part of the body to which it corresponds, creating ARM-TATTOO or NECK-OPERATION by modifying only the location in which the sign in produced. In this way, meaning is encoded into the sign and no additional prepositional items are required (Johnston & Schembri, 2007).

3.2.1.3. Orientation Modification

In Auslan, the orientation or direction of a sign can be changed, usually to show the direction of a verb between arguments. This is discussed in further detail within the analysis. It is important to note that the orientation of a sign may change merely as a result of location or movement changes and carry little significance in light of another major parameter modification (Johnston, 1989; Johnston & Schembri, 2007).

3.2.1.4. Movement Modification

Johnston (1989) notes that modification of the movement parameter for aspect has not yet been documented in Auslan or BSL, but Baker & Cokely (1980) have provided aspectual modifications for ASL. They present several examples including a circular movement to indicate continuity and repeated movements to indicate repetition in the case of verbs. Subsequently, some investigation into describing these modifications in BSL has occurred e.g. The speed of the movement may also show a long, tiresome task or doing something in a hurry (Woll & Kyle, 1994). These would likely be accompanied by non-manual signals, which are discussed below. It is important to note that more than one modification can be applied to some signs at once, yielding a single sign that conveys a large amount of information. For example, in ASL (Valli et al., 2005):

11. GIVE-CONTINUALLY-TO-SEVERAL-PEOPLE-IN-A-HURRY.

In this example, the handshape of the sign GIVE is maintained, but the movement is outwardly repeated in several locations, quickly, with a circular motion.

3.2.1.5. Non-manual Features

Non-manual features (NMF) are those aspects of a sign, phrase or even sentence that are not realised on the hands. These include numerous facial expressions, head position and movement, eye gaze, body posture etc. Some lexical items do have an obligatory facial expression that accompanies them, but NMS are more traditionally understood in acting as grammatical markers such as topicalisation, questions or negation; or intensifying lexical items adverbially (Johnston, 1989). In the case of the latter, the movement parameter of the sign will likely be modified, and NMS will be added that are appropriate in context. Johnston (1989:168) presents the Auslan example:

12. <u>Poke</u> Gloss for poking ones tongue out the mouth.

PRO3 DRIVE+

He drove carelessly.

The production of the above example's DRIVE would be modulated with rash, reckless movements to indicate the carelessness. The NMF and movement modifications for adverbial reasons are, therefore, somewhat lenient. ASL uses NMF in the same way as described above. It should be noted, however, that just as lexical items differ across sign languages, their NMF are often different too. For example, if the above example were signed in ASL, the NMF accompanying the sign DRIVE would be a mouth pattern glossed as 'th' (Aarons, 1994). The application of these NMF in conjunction with the predicate would remain the same. Non-manual features serve a variety of functions that will be discussed as found relevant within the analysis.

Sign languages contain a rich morphology that is quite different to that of spoken languages[9]. The amount of information coded across a single sign far surpasses spoken languages' ability to convey information without the addition of various prepositions, function words, or additional lexical items. Signed languages, being visuo-spatial languages, utilise space in a way no spoken languages can. In frozen lexical items, the location may be modified as described above. This is not, however, the sole use of space that is notable.

3.2.2. Use of space

Both the form and meaning of a string of signs are influenced by how a signer utilises the signing space. On a phonological level, location distinguishes signs as a parameter. Morphosyntactically, space is used to identify referents, provide clarity regarding arguments of a predicate, and show aspectual markers (Perniss, 2012). Much work has been done on these structural functions of space in signed languages (Klima & Bellugi, 1979; Meir, 2002; Padden, 1990; Sandler & Lillo-Martin, 2006). There is also, however, notable discourse-level influence on where and how signs are placed or utilise space (Engberg-Pedersen, 1993).

Signed languages' most notable use of space is the way in which it mentally places referents in a portion of the signing space. Klima & Bellugi (1979) were the first to observe this phenomenon in ASL and observe the different ways it occurs. The localisation of referents in space is seen to occur both syntactically and topographically.

[9] The term "morphology" is one of convenience in this context and is not indicative that the meaningful parts of signs described are the equivalent of "morphemes" per se.

Syntactically, referents take on locations in the signing space (as chosen by the signer) entirely arbitrarily with no necessary reference to real space (Liddell,2003). The location itself holds no lexical meaning but instead, functions as a means to identify referents or arguments of a verb (Padden, 1990). The former may equate to a traditional pronoun, in a sense, as the place-holder for a referent is literally that – a space assigned to that referent (Lillo-Martin & Klima, 1996; Liddell, 1990). The latter occurs specifically with directional verbs (that is, the direction of the movement parameter indicates the actor and undergoer[10]). This placement of referents in space can be held throughout several constructions (even entire conversations/narratives) and referred back to at any point. Within any signs that interact with that space syntactically, whether simple pointing or undergoing a complex verb, that space can be seen as equating to the referent (Liddell, 1990).

Topographically, the spaces associated with referents are not abstract but relate to actual locations; or are used to specify actual spatial relationships between referents. In contrast to a syntactic use of space, the location of the sign is now a meaningful element within the construction. Emmorey et al. (1995) note that topographical and syntactic use of space need not be understood as mutually exclusive. The same location can function syntactically and topographically within the same context. Having placed a referent in a space topographically (i.e. the referent is understood to exist in a representation of real space/ in relation to something else in space), a verb may be directed to or from that location – allowing for a syntactic use of space using the same location. Liddell (1990) argues against the distinction between these uses of space altogether based on Fauconnier's mental space theories (1985) and conceptual blending theories (Fauconnier & Turner, 1996). This suggests interplay between syntactic and conceptual uses of space which will be addressed in 3.2.3 and applied in Chapter 5.

The pragmatic/discourse-level uses of space are of equal interest, especially considering that signers themselves structure these spatial relationships with the function of clear communication. If these structures are primed by considerations of the signer, and are linked to concepts in mental space, it suggests that the locations are not arbitrary and are, in fact, not solely syntactic. Engberg- Pedersen (1993) outlines a number of factors that contribute to the placement of signs in specific locations in Danish Sign Language. She focuses on semantic and pragmatic influences on the use of space. Firstly, what is understood as topographical use of space is what Engberg-Pederson (1993) calls *iconic*

[10] Terms 'actor' and 'undergoer' are thematic roles categorised by Foley & Van Valin (1984) and are synonymous with Dowty (1991)'s 'agent' and 'patient'. These are used to emphasise the semantic meaning over syntactic relations between referents.

convention, in which the relationships of referents are represented spatially – in an iconic fashion. For example, if the intended message is *The cat is on top of the table*, the sign for *cat* would necessarily appear (spatially) above that of *table*. Several more semantic/pragmatic factors are put forward by Engberg-Pederson (1993):

Semantic affinity: Semantically related objects/referents tend to occupy the same space.

Canonical affinity: A referent may be associated with a location in which it is typically found.

The attitude of the signer toward a referent also plays a part in location choice. Engberg-Pederson (1993) notes that a referent which is disliked by the signer may be placed at a distance from the signer whereas a favoured referent may find its place closer to the signer. A referent that holds any kind of prestige or authority may be placed higher up in the signing space. When comparing referents of supposed equal value signers typically place referents on the left and right at equal height and distance. This is known as the *comparative convention* (Engberg- Pederson, 1993). With these factors in play, what may appear to be a simple syntactic relationship through the use of signing space may contain far more information on a semantic and pragmatic level. Furthermore, within a conversation or narrative, constant reference back to a particular place requires that this context is taken into account throughout. The meaning of a pointing sign (or index) that indicates specific location in the signing space cannot be observed in isolation, even within a single construction, but rather the context of the entire discourse. Winston (1995) observes a typical contrastive structure at a discourse level, which she calls *spatial mapping*. This structure allows for themes within the discourse to be placed in space, ready for reference, interaction or comment. These referents need not exist in real space, or even be concrete. Abstract concepts can be placed into space and referred to with ease. In this way, complex relationships that exist on a conceptual level are mapped onto the signing space.

3.2.3. Conceptual Blending

Fauconnier & Turner's (1996) "conceptual blending" can be explained as a cognitive process that occurs within a speaker's mind in which mental spaces can be blended into a composite mental space. Fauconnier (1985) proposed mental spaces – conceptual packets of information which are constructed as we think and speak, subject to change as the information being expressed does. Simply put, conceptual blending is the merging of two mental spaces, creating a composite space. To illustrate the process, Fauconnier & Turner (1996) present an example in which a philosopher is discussing Kantian philosophy. The philosopher is said to have stated the following:

> I claim that reason is a self-developing capacity. Kant disagrees with me on this point. He says it's innate, but I answer that that's begging the question, to which he counters, in *Critique of Pure Reason,* that only innate ideas have power. But I say to that, what about neuronal group selection? And he gives no answer. Fauconnier & Turner (1996:1)

Within these sentences, the philosopher has framed himself in a debate with Immanuel Kant. Of course, this exchange never occurred in reality; and yet the philosopher is capable of creating and portraying a scenario in which the necessary information is present. A diagram is provided below to illustrate the mental spaces of information relating to both the philosopher and Kant. In order to create the debate scenario described above, these mental spaces are used as inputs.

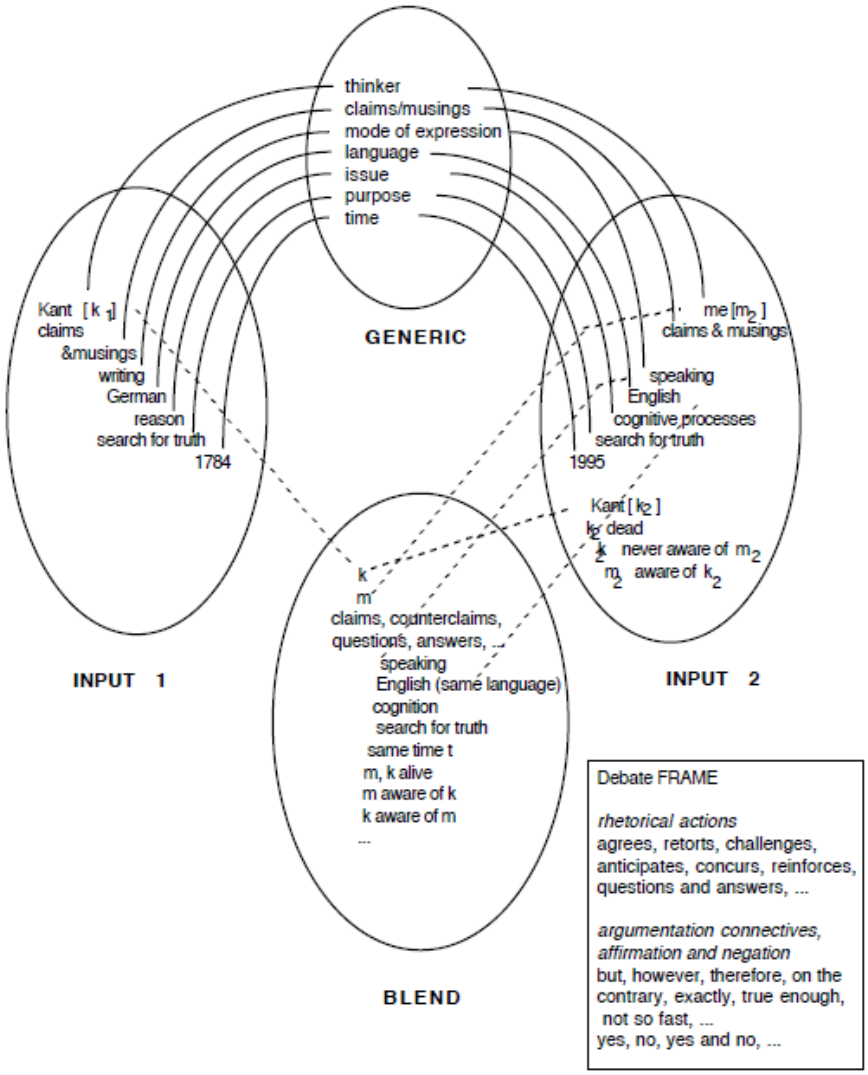


Figure 3: Representation of blended space (Fauconnier & Turner, 1996: 3).

The notion of a debate exists in neither mental space, but Fauconnier & Turner (1996) posit that these two mental spaces share a structure. Within both spaces, there exists a person or "thinker" with ideas or claims he has made. These claims are made in a specific language and relate to a specific topic. This shared structure, known as *frame* structure, creates an additional space which is termed *generic space*. A conceptual blend occurs when the two mental spaces are used as inputs to create a fourth space. This blend is created in the frame of a debate, receiving its participants from the philosopher and Kant mental spaces. The blend is therefore created as a space in which Kant and the philosopher are both present, alive, and addressing a topic in a shared language. An important point made by Fauconnier & Turner (1996) in this regard is the ability to manipulate and operate in this new blended mental space once it is established. Implications for signed language and its use of

mapping conceptual space onto real-space, classifiers and constructed action are numerous. The idea of conceptual blends aid in explaining referents placed in space, and how a signer references them. The choices a signer makes regarding iconic signs and salient features is also explicable. Furthermore, signers may enter the blend and produce constructed action from within. I discuss these below.

Taub (2012) explains the iconicity of signs using conceptual blending theory. She cites Gentner & Markman (1997), noting that *resemblance* is nothing more than an interactional property between two mental images. We consider two entities to be similar in certain aspects due to similarities found in the mental images of those entities. On a linguistic level, we consider certain signs to be iconic due to the correspondences or *mapping* that are evident between the form of a sign and the mental image of the referent. Semantic meaning is therefore established through the *blend*, in which the composite structure exists, and the form resembles the meaning. This may apply only to salient features of a referent. The legs of a human being portrayed as the index and middle finger of the hand facing downward, as an example presented in Taub (2012), is a part-whole mapping. Although the configuration of the hands does not look like a human, the viewer can identify the *resemblance* within the blend between human legs and the configuration of the hands and infer the meaning of a person.

As noted earlier, Liddell (1990; 1995; 2003) argues against the distinction of topographical and syntactic uses of space using conceptual blending theory. In sign language analysis under a conceptual blending approach, Liddell argues that the two input spaces are real-space (that is, the signing space or current environment) and the signer's mental space. A blend of these spaces equates to a signed representation of mental space. Conceptual elements are projected onto real-space by use of the signing space and correspond with the hands and locations within that signing space. In the case of topographical space, the spatial relationship exists as a mental image to be portrayed. This is mapped onto the hands in the manner described above. If looking at a syntactic use of space, the event or description intended to be conveyed exists in mental space, and is mapped onto the hands in the same way. Liddell argues that indication and reference to present or non-present entities and locative/relational information between them is essentially the same.

Liddell (2003) takes this further to introduce *surrogate space* in which the signer can enter the blend, manipulate objects, and take on roles of characters. He likens this to Metzger's (1995) and Winston's (1991) *constructed action*. Constructed action is discussed in this chapter and within the analysis.

3.2.4. Simultaneous vs Sequential Production

In constructing words or sentences in spoken languages, the articulators are limited to producing a single sound at any given moment. This makes it necessary that most language will occur sequentially (one word after another) and follow some kind of order. Although some simultaneous phenomenon may be present in spoken languages (e.g. in the form of speech and intonation), the degree to which signed languages produce simultaneous constructions is far more notable. Johnston & Schembri (2007) note that in realising what makes up a sign (the five parameters), it is inevitable that these would occur simultaneously. If one produces a handshape, it will occur at a location and with an orientation, even if these are not considerations in the production. Furthermore, a movement cannot occur if nothing exists 'to move'. It makes little sense to produce non-manual features before or after a sign rather than across the sign in which it adds information. With multiple articulators comes the ability to produce a number of parameters at the same time. Of course, there are instances in which more than one location, movement or handshape is used in a sign, and so physical constraints do exist within individual parameters. A signer cannot produce two handshapes on the same hand simultaneously, nor two movements etc. In this way, signing does maintain some degree of sequential structure

The ramifications of this predominantly simultaneous production are that without describing each parameter (and its modification if applicable) in conjunction with other parameters, and other signs in a construction, its function is not clear. Only through a holistic approach to the part-whole (meronomic) structure of a sign (and a larger signed construction) can all aspects be accounted for. Radical Construction Grammar can do exactly this. The form of the sign/ signed construction can be clearly defined in terms of these parameters, as well as their modifications and applicability to surrounding signs/constructions. The semantic elements of this form can be described with reference to discourse and pragmatic features, and the overarching context of the construction. RCG aims to define these features within a construction specific context and is well suited to accommodate this feature of signed language.

3.2.5 Semantics in Sign Language

As has been discussed, generative theorists maintain that semantic information does not influence, and is fundamentally divorced from, linguistic form. Cognitive and functionalist theories (including theoretical perspectives stemming from such understandings) posit that semantic *meaning* is fundamental to, and prompts, specific linguistic form within language. Sign language provides a

novel case in that iconicity, metaphor, and conceptual understanding are necessary to understand a given signed utterance (Taub, 2001). When looking at the semantics of sign languages, issues of iconicity and the use of space are of importance. Sign languages take advantage of the possibilities afforded by the modality. The semantic features of signed language are introduced in an *ad hoc* fashion throughout this dissertation – made reference to when necessary. The use of space has already been discussed. Classifier constructions and constructed action, too, have been addressed. This section will deal primarily with iconicity in signed language, and how signs are motivated by, but not necessarily comprehensible, through iconic means.

3.2.6. Iconicity

Iconicity is the term used to describe a resemblance between a concept and the linguistic form to represent that concept (such as a word or sign). Iconicity is said to motivate forms but not determine them (Taub, 2012). This is a complicated idea when viewed in terms of numerous signed languages. As some signs may visually depict their referent, different sign languages may share a sign for no other reason that the salient features of that referent are easily transferred onto the hands. Rosenstock (2004) gives the example of the sign for BOOK, in which the sign is identical in Auslan, Sign Language of the Netherlands, South Korean Sign Language, and even South African Sign Language. The concept of 'a book' is portrayed in these languages by means of salient features that are characteristic of a book. Two flat hands with palms facing upward, while touching, resemble these features. This cross-linguistic parallel does not, however, suggest that signed languages are mere pantomime, and are therefore comprehensible by means of this iconicity. Some highly iconic signs differ across sign languages for a concept. For example, the sign for TREE in Danish, Chinese, and American sign language are all considered highly iconic signs, yet all differ from one another (Klima & Bellugi, 1979).

There do exist many arbitrary signs. Sutton-Spence & Woll (1999) note that spoken language tends to have few iconic lexical items (in the form of onomatopoeia). Onomatopoeia is spoken language's only tool to portray a referent 'iconically' using sound – by reference to the sound that referent makes[11]. Many objects, however, make no sound. Within the visuo-spatial modality, the physical

[11] Many languages move beyond onomatopoeia, classifying certain words as *ideophones*. Ideophones are words that evoke a vivid representation of an idea (e.g. sound, movement, colour or shape) through sound (Doke, 1935). It is possible that iconic signs might be understood as 'visual ideophones', but further research is needed.

properties of referents (which are far more common) can be portrayed visually in terms of those properties. In this way, a high level of iconicity in signed languages is not an indication of pantomime or a glorified gestural system, but rather a physical way in which to relate to the physical world. Of course, abstract concepts, too can be conveyed in signed language – some of which are a product of metaphor, metonymy etc. From a form-meaning perspective such as adopted in this study, resemblance of a form to its referent would be ideal; but it is not always the case that signs are visually motivated.

It is important to distinguish between the notion of iconicity and *transparency*. If a sign is visually motivated or even highly iconic as in the case with BOOK, it does not necessarily mean that a non-signer of that language would be able to identify the meaning of that sign. For signs to be considered transparent, anyone would be able to deduce the meaning of a sign by viewing it for the first time with no understanding of how signs are created. Research has shown that non-signers found it difficult to deduce the meaning of even highly iconic signs (Klima & Bellugi, 1979). Signers therefore learn and understand a sign beforehand, as one does a word. Some information, however, aids an individual in extracting meaning from signs. Pizzuto & Volterra (2000) conducted a study in which people from different cultural and language backgrounds were asked to 'guess' the meaning of a number of Italian sign language (LIS) signs. They found that different signs were understood correctly by: Non-signing non Italians; Deaf signing non-Italians and; Italian non-signers. They concluded that certain signs are *transparent* in a sense, in that anyone may be able to extract meaning; whereas some signs require knowledge of Deafness/signing, or Italian culture. How one understands an iconic sign has more to do with an individual's knowledge of both signing and conceptual understanding of a referent than mere transparency. Sarah Taub states the following:

"Iconicity is not an objective relationship between image and referents. Rather, it is a relationship between our mental models of image and referents" (Taub, 2001 in Taub, 2012: 390).

These mental models are, as suggested above, not universal. Liddell (2003) uses Fauconnier & Turner's (1996) conceptual blending process to explain how some iconic representations (such as constructed action) are possible via *blending*. Taub (2012) extends this understanding to single iconic signs or classifier constructions in which specific conceptual aspects of a referent are mapped onto a form (on the hands). The identification of this mapping is what constitutes a *resemblance* between

form and meaning. This conceptual understanding of iconicity is further utilised in classifiers and constructed action, where manipulations can be made within the blended space.

Taking this into account, RCG's understanding of semantic content is attributable to signed languages. The importance it places on identifying functions and roles as internal to constructions allows for a highly contextual understanding of signed constructions. RCG includes all aspects of form and conventional meaning within a single construction – which is seen as the basic primitive unit within RCG. Although highly complex, a construction can account for a signed language's use of space, pragmatic and discourse functions, and complex simultaneously realised form. As complexity increases from lexical items such as a single sign to complex spatial mapping of abstract concepts, RCG can accommodate the situation in the form of constructions.

3.2.7. Classifier Constructions

The term *classifier* has been used in various different sign language texts to describe a specific type of construction. Before addressing this construction type, it is important to note that this term does not equate to the traditional linguistic notion of a *classifier*.

The term classifier in linguistics refers to a word, morpheme, or affix that accompanies a noun in order to classify that noun according to a specific type of referent (Allan, 1977). These are usually found in utterances in which the noun is countable and being counted. In English, there are very few, if any, true examples of classifiers. East Asian languages such as Chinese and Japanese, however, use classifier systems to denote specific noun types. Consider the examples below.

13. Chinese Mandarin classifiers:

sān gè xuéshēng	three students	three [CL:human] student
sān kē shù	three trees	three [CL:tree] tree
sān zhī niǎo	three birds	three [CL:bird] bird
sān tiáo hé	three rivers	three [CL:long-wavy] river

14. Japanese classifiers:

yotto san-sō	three yachts	yacht three [CL:boat]
shatsu san-mai	three shirts	shirt three [CL:flat]
inu san-biki	three dogs	dog three [CL:animal]

In both of these languages, nouns are accompanied by classifiers indicating the type of noun. These classifiers are semantically founded as they relate to properties of the noun (Croft, 1994). Regardless of what the referent is, if the salient feature of the entity is *long and wavy* in Chinese Mandarin, it will be accompanied by the classifier for that type: *tiáo.* As with the other examples, the semantic type of the noun determines the classifier used.

Although specific aspects of certain sign language classifiers may meet the above criteria, the traditional understanding of classifiers is not sufficient to explain sign language classifiers as a whole. Nevertheless, the term has widely been accepted by sign language researchers when referring to these types of constructions. Pfau et al. (2012) state that almost all researched sign languages to date show evidence of a classifier construction system. Attempts at renaming these constructions are numerous, arising from analyses and research on the construction type. As will be shown, the complexity of the constructions themselves poses the largest problem in classification or analyses. Before introducing classifiers under the framework of Radical Construction Grammar, descriptions of classifiers in other sign languages will be presented.

In his seminal works on classifiers, Supalla (1982, 1986) categorised different classifiers in American Sign Language into five distinct types. Each of these is briefly explained below.

Semantic classifiers: Similarly to classifiers in spoken language, these classifiers distinguish between the referent type semantically such as animals, people, plants, vehicles etc.

Size and Shape specifiers (or SASS): These classifiers are used to illustrate the shape, size, and any physical features of a referent. These are subdivided into those which are produced by using the hands to trace an outline of the referent (tracing), and those which are produced by using carefully chosen handshapes to indicate the shape or size of a referent (static).

Instrumental Classifiers: These are used to denote an instrument or tool being used. As with size and shape specifiers, there are two ways in which to produce these classifiers. Either the hand itself can take on the shape of the tool and move in a way that indicates its use; or the hand can play the role of the hand using the tool. For example: If using a classifier to convey knitting, the hands may be used to represent the needles themselves *or* the hands that hold the needles.

Body-part classifiers: If a signer wishes to convey a body-part, the body itself can play this role i.e. a reference to hands or a nose is simply represented by the hands or the nose.

Body classifiers: In this instance, the body of the signer is used to portray another person or animal. After much research, body classifiers have become widely regarded as separate from a classifier system and has taken on other names such as referential shift, role-shift, and constructed action (this phenomenon is discussed later).

Following Supalla's work, various other analyses and categorisations of classifiers arose for ASL (Liddell & Johnson, 1987) and other sign languages including Auslan (Johnston & Schembri, 1989) and BSL (Brennan, 1990). This research into the productive lexicon of sign languages suggested that although the constructions themselves may differ, the signed modality has a tendency to use classifiers in specific ways:

- Firstly, to illustrate referents based on their physical properties such as size and shape, as well as semantic properties such as animate or inanimate. Supalla's semantic classifiers, SASS classifiers, some instrumental classifiers (in which the hands portray the tool itself), and body-part classifiers would fall under this category. These are termed *Entity Classifiers*.

- Secondly, to represent an object being manipulated by an agent. Instrumental classifiers, and some body part classifiers (in which another body may be manipulated or touched) fall into this category. These are termed *Handling Classifiers*.

Although some controversy still exists surrounding the exact categorisation of classifiers, it is commonly accepted by sign language researchers that the above categories are found in most sign languages (Pfau et al., 2012). Considering how classifiers are defined in spoken languages, it may not seem a stretch that, within a visuo-spatial modality of signed language, the noun-class/classifier for specific nouns may take on the physical characteristics on the hands in a physical way. In place of a morpheme or lexical item to portray a prototypical *type* of referent, it is portrayed visually using the hands. The distinct difference with sign languages, however, is found in its simultaneity. Not only can

a referent be established using a classifier (providing information about the semantic type, shape, size etc.), but verbal (and even adverbial) information can be (and typically is) included. Johnston & Schembri (1989) point out that, strictly speaking, only the handshape used constitutes the classifier, as it denotes the noun type, shape etc. They note that classifiers, as found in signed languages, appear to perform more of an illustrative depiction of objects than a classification. Moreover, any location, movement, or manner of that movement can also be depicted. This is likely why many researchers reserve the term *classifier* for the handshape alone and use terms such as *depicting verb* (Johnston & Schembri, 1989), *classifier predicate* (Liddell, 1977), or *classifier verb* (Pfau et al. 2012). Liddell (2003) notes that literature concerning classifiers is inconsistent in terms of terminology. Linguists cannot state if a classifier (as found in sign languages) may be considered a noun, a verb, or both. For the purposes of this dissertation, the term *classifier* is used when referring to these depictions as a whole. *Classifier Construction* will hereafter be used when referring to constructions (as described under the framework of RCG) containing this type of depiction.

Supalla (1982, 1986) viewed these classifiers as one or more verbal roots to which various affixes could be ascribed. If a referent maintained a specific spatial relationship with another, the root could take on a locative affix. That is, the classifier would be produced spatially in reference to another referent. If the referent performed an action that denoted movement, the movement would occur in real space to signify that. If the manner of that movement (or other action) could be displayed, an affix could be found to signify that. For example: If the intended message was that a car drove up a bumpy hill, a classifier handshape denoting a car (these differ across sign languages but are consistent within each) would be produced. Slanting upward and moving in a direction while also moving upward, the handshape may also take on an internal movement in which the hand shakes, illustrating the bumpiness of the drive. Essentially, all of this information would be conveyed in a single sign. This sign, however, cannot be considered a standard, as the modifications by means of affixes would change depending on the context. If the car changed direction or speed, stopped, or proceeded onto a smoother surface, the construction would depict that. In this way, classifiers are considered immensely morphologically complex. It is, however, the presence of the previously discussed parameters that constitutes this morphology. The *phonological* aspects of typical signs can therefore now be said to act morphologically. Liddell (2003) puts Supalla's understanding of classifiers to the test and provides a morphological analysis of a two-handed classifier[12].He finds that, while exceptionally complex, some aspects of the sign cannot be clearly defined

[12]Scott K. Liddell, 2003: 204-206 for the curious reader.

morphologically i.e. the meaning is not clear outside of the entire classifier production. Engberg-Pederson (1993) states that the interpretation of classifier verbs depends on classifier used, as certain movements do not pool well with certain handshapes (acting as referents).

Supalla's explanation of classifiers has been criticised for being too complex in positing that every element of a sign contributes to meaning (Pfau et al., 2012). It is precisely this part-whole meronomic, however, that makes a non-reductionist theory such as Radical Construction Grammar an appealing option for sign languages. If an aspect of a sign is considered to hold meaningful information, it need not carry over into any other construction. For example: The SASL classifier for AIRPLANE-FLY consists of the 'Y' handshape moving across upper neutral space. Both the handshape (iconically using the thumb and pinky-finger to represent the wings of an aircraft) and the location (higher up in the signing space to illustrate an aircraft's location in the sky) contribute to meaning. It is not the case, however, that any sign produced using the 'Y' handshape relates to an aircraft, nor production of signs in upper neutral space suggests activity in the sky. A specific movement or handshape may be considered a meaningful unit in which the meaning is specific to only that construction. A single sign in which the referent/s, predicate/s, and any other producible information is self-contained and specific to that sign does not pose a problem for Radical Construction Grammar. As stated earlier, provided the form, symbolic links, and conventional meaning are explicable, a linguistic description of the construction is possible. In this way, classifier constructions are viewed under RCG, first and foremost, like any other construction – as a form-meaning pairing.

Classifier constructions are not the focus of this paper, but it is imperative to note that RCG may be able to accommodate constructions of such complexity. The few examples of classifiers found within the narrative data will be addressed in the analysis, but the analysis of this kind of construction is by no means comprehensive. Knowing what we do regarding classifier constructions in other sign languages, a novel investigation specifically focused on classifiers would be of great benefit.

3.2.8. Constructed Action

The phenomenon which I will refer to in this dissertation as *Constructed Action* has been given many names over the course of sign language research. In early ASL research, the term *Role shift* or *Role play* was used to discuss the tendency of signers to take on the role of someone or something else – thereby gaining the ability to convey information from the perspective of that entity (Pfau, 2016).

Signers are able to portray this other 'role' by changing the position of the body, non-manual features, or commonplace facial expression; and convey the perspective of another person (Sandler & Lillo-Martin, 2006). This has been observed in various sign languages as either *Role shift, referential shift, Constructed dialogue,* or *Constructed Action* in ASL (Emmorey & Reilly, 1998; Liddell, 2003), BSL (Morgan, 1999; Sutton-Spence & Woll, 1999), Danish Sign Language (Engberg-Pedersen, 1995), Auslan (Johnston & Schembri, 2007) among others.

Rather than a grammatical occurrence, this constructed action is commonly understood as a discourse or pragmatic use of space (Winston, 1991; Liddell, 1995; Metzger, 1995). Tannen (1989) points out that the idea of "reported speech" (which includes reported utterances in signed languages), the re-enactment of the utterance is seldom verbatim; and furthermore that speakers may often ascribe a 'voice' to non-human entities incapable of language, or a large group of people who maintain a collective 'voice'. In this way, the reported speech is better considered *constructed dialogue* or in the case of signed language, *constructed action* (Winston, 1991; Liddell, 1995; Metzger, 1995).

When looking at instances of constructed action in the data, Liddell's (2003) understanding of *surrogate space* under a conceptual blending framework is followed. As elements are mapped from conceptual space onto real space, semantic meaning is mapped onto form within signing space.

Although constructed action is not the focus of this paper, it is an important aspect of signed language and performs a significant discourse role within narrative structure. Examples of constructed action are present in the data and will be discussed within the analysis.

3.2.9. The Heterogeneous nature of SASL

In any language, social variation exists to some degree. Factors such as age, race, class, gender & region influence how people produce language. Sign languages are an interesting case as specific factors play a much larger role in determining this variation. People within Deaf communities have historically had lower qualifications than their hearing counterparts and have formed part of the lower class (Sutton-Spence & Woll, 1999). For this reason, influences of social class do not appear to play a large role (Sutton-Spence & Woll,1999; McKee & McKee, 2011). More prevalent factors within Deaf communities are those of family backgrounds, schooling, audiological level of deafness, region, age, race and gender.

The family a deaf child is born into is influential regarding language development in that the child may or may not have deaf parents or siblings. Those born to hearing parents may not have any exposure to language before schooling begins –dependant on the level of deafness a child experiences. Alternatively, a child born to Deaf parents would likely acquire a native proficiency in a signed language.

The schooling a deaf person received also contributes to their language background as medium of instruction varies. With various oral, signed or mixed methods of teaching, one's influence from spoken language, or lack thereof, can be related to their exposure during schooling (Baker et al., 2016; Pfau et al., 2012). Of course, the influence of spoken language increases with the person's ability to perceive sounds. The level of deafness, and whether or not a person makes use of cochlear implants, hearing aids etc. is also a factor when considering the influence of spoken languages. However, the language profile of many signers is influenced more by schooling than home and family life.

Research suggests significant interplay between schooling and region, age, and gender as factors of signing variation. When discussing region as a factor of variation, it is important to remember that schooling for deaf children often occurs separately from mainstream schools as well as other schools for deaf children. The regions in which schools for deaf learners are contained appear to correspond directly with regional differences in signing (McKee & McKee, 2011; Eichman & Rosenstock, 2014). This suggests that regional differences can be attributed to schooling; at least where standardisation of language/education policy across schools has not occurred. A person's age will always be a factor in how they use language, simply due to the ever-changing nature of language itself. It is no different for signed languages. However, this too corresponds to the prevalent teaching methods within schools at the time. Gender-based differences have been noted in Irish Sign language but once more appear to be a factor of separate schools for male and female learners (Leeson & Grehan, 2004). Overall, schooling and separation therein appears to be the largest factor influencing variation within signed languages.

For some time, SASL has been understood as a language with much socio-linguistic variation (Akach & Aarons, 2002; Akach et al., 2009). This, however acknowledged, has not received the deserved attention of researchers. Only recently has the degree of lexical variation in South Africa been studied. It was found that lexical differences exist in SASL and this variation can be attributed to

signers attending different schools (Van Niekerk & Ebersohn, 2015; Van Niekerk et al., 2016). The little that is known regarding variation in SASL is a mixture of factors. There appears to be a unique interaction between factors of race, schooling, and age within South Africa as a result of the Apartheid regime.

As stated above, separate schooling systems lead to variation. Schooling during apartheid further separated children according to race, creating a variation that was regionally *and* racially based. Language influence follows this separation as white children were taught using strict oralist methods – where only some black/coloured children were afforded opportunities to sign, due to the belief that oralism was the superior method. Age is a large factor as post-apartheid education policy saw the abolition of racial separation in schools. The medium of instruction in schools also varied as they were founded by colonial immigrants who brought international methods and signing with them. Lexical variation has been found due to the influences of these sign languages from abroad. Nkwinika (2016) found that a substantial 76.5% of the 100 basic SASL signs elicited were borrowed from Irish, British, and American sign languages (this includes influences from written English and the Paget-Gorman system). As these sign languages and methods were brought to South Africa and established in schools in specific regions, it was also found that the Gauteng province was most heavily influenced by BSL and ASL – whereas the Western Cape was influenced more by Irish Sign Language. The content of the data in this study *itself* explains SASL variation in relation to sexual orientation but, at this point, no research in South Africa has been conducted on this topic.

3.3. Instrumentation.

3.3.1. Case Study

Considering the variation discussed above, it is unrealistic for a study this size to account for the various factors that may affect SASL. A sample of a large number of signers from various backgrounds would be necessary to fully understand and report upon the language. A case study approach was adopted for this study in order to (a) avoid the aforementioned barrier by investigating only a small sample of the Deaf signing population; and (b) conduct research which may be replicated on a larger scale, taking into account the factors of variation. However, more research is required to even identify a representative sample as studies relating to variation in SASL are scarce.

Although the influential factors may not always be the same as those found in SASL, the issue of obtaining a representative sample has been seen in linguistic research of other sign languages.

Johnston & Schembri (2007) note the influence of spoken language on Auslan and the Australian deaf community's heterogeneous nature. Their solution is to exclude certain groups (e.g. hard-of-hearing participants, which would somewhat avoid influences of spoken language) in research and focus on describing the signing of a clearly defined group. It is stressed that any generalisations made must be attributed to this clearly defined group and no further. Sign linguists are familiar with the problem of data collection and overcoming this issue of a representative data set (Orfanidou et al.,2015). It is often conceded that although a sample may not be representative of the larger signing community, studies of particular signers are a step toward not only a larger understanding of the language, but the variation contained within the language too (Fenlon et al., 2015).

The sample for this study is a single case study of a 40-year-old black, gay, deaf male. He was the only deaf child born into a hearing family. He acquired SASL at an early age when he attended schools for the Deaf. He was born and raised in Johannesburg and received schooling at the North West Boarding School for Deaf learners near Rustenberg in the 1980's, and thereafter at Sizwile high school in Soweto. He identifies with being culturally Deaf and part of the Johannesburg, and indeed national, Deaf community. He is a fluent signer in the Soweto-Johannesburg dialect of SASL and it is his first/home language. At the time of data collection, he did not have any explicit linguistic knowledge of SASL. Taken into consideration the level of variation SASL portrays, a case study is not representative of SASL as a whole. The observations of SASL in this study are, therefore, particular to a single case of the gay, black, male, Deaf community in Gauteng.

The participant, John Meletse[13] was asked to supply narrative data in the form of a "life story", providing any information he deemed necessary. He was asked to recount a personal experience, eliciting a narrative that provides the opportunity for sentences to appear in context of one another. John was asked to describe a significant or memorable experience that occurred during his primary/high school education. The aim was to elicit freely formed SASL constructions within a larger context of the narrative. By using real life events as data content, the hope was to discourage the abundant use of classifier constructions. These, although relevant, are only briefly discussed in this investigation and should constitute a separate study in their own right. Narrative data such as children's stories or folk tales often involve far more use of the language's productive lexicon. For this reason, they were excluded from the desired elicitation.

John was invited to sign his narrative in the Sign Lab. in the South African Sign Language department at the University of the Witwatersrand. Prior to this, He was invited to meet with me to discuss consent, participant information, details of the study, and ask any questions the participant had. All

[13] Permission was granted by the participant to use his full name.

interaction between the researcher and the participant was conducted in SASL. A qualified SASL interpreter was on stand-by, in the event that clarification was required.

John's narrative was filmed in the Sign Lab and underwent no editing whatsoever before being entered into annotation software.

During the annotation process, John was invited to meet with me twice to clarify any content, discuss the narrative, and engage in informal, open-ended interviews regarding his own understanding of the narrative. These serve as a secondary anecdotal source to complement the primary data. As John did not have extensive linguistic knowledge, responses consisted largely of intuition rather than meta-linguistic information.

3.3.2. Annotation and Analysis.

The narrative provided approximately 9 minutes of signed data. Of the full narrative, the initial 5 minutes and 40 seconds was chosen and deemed enough data to analyse. Other portions of the data were viewed and annotated when necessary. This data was annotated in ELAN - a unit of software created by the Max Planck institute for psycholinguistics. ELAN is ideal for signed data as it allows for annotation that synchronises with the video. The annotation correlates with the time interval of a sign in the footage, showing its start and end point. Signs can be coded across several tiers, which can be customised for any given study. For this investigation in particular, tiers consisted of English glosses, translation, and various non-manual features.

An English Gloss: Correlating with the start and end point of each single sign, the equivalent (if possible) English gloss is provided (see Appendix E).

An English Translation: On a larger sentence-length level, an English translation is provided.

Eye Gaze: The direction of the signer's eyes is noted upon this tier e.g. left, right, upward, downward, hands (when the signer observed their own hands/sign).

Eyebrows: The behaviour of the signer's eyebrows are found upon this tier e.g. furrowed or raised eyebrows.

Eye Aperture: The opening and closing of the signer's eyes is noted here e.g. squint, closed, wide. Blinks were also annotated here.

Head Movement: Any movement by the signer's head is annotated here. This includes nods, head-shaking, and tilting of the head in any direction.

Body Movement: Larger shifts of the signer's torso and/or shoulders is noted here.

Mouth Movement: Not including mouthing of English equivalents, any mouth movements are noted upon this tier e.g. pursed lips, blowing, and the opening and closing of the mouth.

The non-manual features are focused on in the annotation of the data to observe the grammatical functions of well-researched aspects of many international signed languages. Structures of role shift, topicalisation, and question markers are observed on the face. Coding these allowed for the distinction to be made when specific constructions contained non-manual feature clusters. Some non-manual features appear over single signs - others, over entire complex constructions. Noting when and where these non-manual features occurred allows for a more holistic approach to the data as it can easily be observed when a number of interconnected non-manuals correspond with signing.

Construction limits themselves are not annotated due to the flexible and multi-level nature of a 'construction'.

As the aim is observation, what is explicitly present in the data is what is discussed. Areas of interest that were not abundant in the data are regrettably not addressed within the analysis. As this is preliminary research, areas of interest that could not be discussed will be emphasised in future endeavours.

3.3.3. Ethical Considerations

Due to the nature of filmed data, anonymity of the participant was not possible. John was informed of this when invited to take part in this investigation by means of a participant information sheet (Appendix A). As he is not a first-language English speaker, all information contained in the brief was signed, in SASL, and any questions answered. All interaction between John and myself was aided by the services of a qualified SASL interpreter. The participant signed a consent form before participating in any other aspect of the study (Appendix B). A separate consent form was used to acquire permission to be filmed (Appendix C). The option to opt out of the study at any point was also available. Prior to conducting this study, I applied and received clearance from the postgraduate ethics committee (Appendix D). This study strictly adhered to the ethical standards and principles of the University of the Witwatersrand.

3.3.4. Limitations

It is important to note that this investigation is preliminary, and has numerous limitations, which will be discussed here. The limitations of this study are largely linked to the small size of the study itself, the data, and the state of SASL research as it stands.

As stated earlier, this study only contains a single participant. Although he is a fluent and native signer, he is not representative of SASL as a whole due to the heterogeneous nature of South African Deaf population described in 3.2.9. Considering the variation discussed above, the most prevalent limitation of this study is the fact that no single informant could account for factors of age, gender, race, geographical location, and education.

Some limitations also exist within the data itself, in both quantity and quality. With just under 6 minutes of coded data, certain aspects of the language were only witnessed a handful of times, if at all. The use of narrative structure poses problems of its own as a single monologue-type task only elicits certain constructions. Conversational aspects of the language were not observable, outside of a few instances of role-shift – which cannot be said to be natural signing. That which is not found in the data, therefore, is not discussed.

Bearing in mind the above limitations, a replication of this study would yield substantially different results when using a different participant.

The issue of a hearing researcher observing a Deaf participant is notable. I, as the researcher, am hearing and first began acquiring SASL in 2009 when I enrolled for the SASL undergraduate program at Wits. I was raised in a hearing family with no Deaf family or friends and, prior to university, had no experience of signed language whatsoever. I acquired SASL over a period of years and consider myself a proficient signer and of sufficient signing knowledge to conduct this research. The department in which I work employs Deaf native signers, whom I have had the opportunity to consult with throughout my postgraduate career.

Ideally, research on sign language should be conducted by those who acquire it as their first language, however this is not always the case. Traditionally, research on Sign Languages has been conducted by hearing researchers; who endeavour to conduct ethical, “Deaf-friendly”, culturally appropriate research – being aware of their own exclusion from native deafness (Orfanidou et al., 2015) The tendency of the hearing researcher investigating deafness is largely due to the lack of

Deaf researchers globally. While internationally, the number of Deaf researchers has increased over the past few years, South Africa remains without many Deaf people who are qualified or involved in research. Postgraduate programmes in SASL have only become available to students in the past few years and, to my knowledge, only one Deaf student has taken the opportunity to conduct postgraduate research at master's level.

As a researcher of sign language, my familiarity with sign language research and literature naturally influenced my observation and analysis. Radical Construction Grammar requires a somewhat novel look at syntax, sacrificing some traditional syntactic knowledge. While looking at signed language syntax from the perspective of radical construction grammar, it is important to acknowledge my familiarity with the syntactic descriptions of other signed languages. Specific constructions are identifiable as unique to the modality and are found within numerous signed languages. Specific areas of interest to linguists, such as topicalisation or rhetorical questions, may not have been described as such under an entirely fresh perspective of RCG.

This study is as much a test of a Radical construction grammar method as an investigation in its own right. If this framework is found to be efficacious in describing this small portion of SASL, it may be replicated on a larger scale.

Chapter 4: Analysis

This chapter will discuss what syntactic features can be observed in SASL using Radical Construction Grammar as a starting point. The data, as explained, is not abundant in all aspects that may be worthy of discussion; but those which provide sufficient data are identified and discussed. Some traditional terms are maintained for clarity's sake when discussing constructions in SASL (E.g. Noun Phrase may be used when discussing a construction of subject, object etc.) Considering the use of space in signed language, and the importance of semantic, discourse, and pragmatic features, explanations and descriptions of constructions in SASL must take into account the peculiarities of visuospatial language.

This chapter will look at simple, compound, and complex sentences, or rather, constructions that would typically fit the criteria traditionally required for these sentences. Constructions of various length and complexity will be described, taking into account as many factors as the data provides. A holistic view of each construction can ensure the description is not reduced. I will begin with a discussion of simple sentences, in which I address: (i) the establishment of subjects and objects as noun constructions in SASL, including pronominal and indexical reference, and adjectives accompanying these noun constructions; and (ii) predicate constructions and how they are achieved in SASL. Under Compound sentences, the use of conjunctions and a discussion of the Rhetorical question can be found. Finally, under Complex sentences I will discuss how SASL achieves what traditional methods deem complex (in that they contain subordinate clauses). Peculiarities in sign order and common practices across many sign languages will also be addressed, including Topic – Comment structure or *Topicalisation*.

4.1. Simple Sentences

4.1.1. The Noun Phrase/Construction

The noun phrase is typically understood in spoken languages as a single noun or a collection of words functioning as a subject or object within a sentence. RCG, however, views the formation of the subject or object as a single construction, regardless of the many constituents that make it up. All constructions that occur in order to fulfil the function required (that is, establishing the subject/object) are necessarily part of the noun construction. In the case of signed languages, this includes factors already discussed that are not typically imperative to establishing referents in spoken languages. I will present several constructions below, in which the creation of the noun

construction can be seen to occur in different ways. A distinction must be made between *establishing* a referent, and *reference* to the referent. The former is of particular interest when discussing the 'Topic – Comment' structure of certain constructions, which is discussed later. Consider the examples of Noun constructions in SASL below:

a) SCHOOL CLOSE MOVE HOME

(signed in signers rightward signing space) (from left to right) (leftward signing space)

When school closed, I went home.

Figure 4: SCHOOL and HOME [14]

SCHOOL HOME

In (a), the signer conveys that when his school closed, he went home. Prior to this, the signs HOME and SCHOOL had been produced in neutral space. Just before the construction in (a) appears, the signer appears to struggle to construct the signed utterance, switching between the signs SCHOOL and HOME. He initially signs MOVE from his rightward signing space to the left. Realising he has not yet attributed anything to these spaces (causing MOVE to lack any specific meaning apart from movement in general), he corrects himself and begins again. On his right-hand side, the signer produces SCHOOL and CLOSE, then MOVE across toward his left hand side, where he then produces HOME. The movement of the sign MOVE clearly indicates the direction of this movement, but this will be discussed later under predicates. This construction achieves two things: First, the information intended to be conveyed is shown and secondly, the signer has established the ideas of *school* and *home* in space. He utilised the signing space to create a means to show the relationship between the two places. The spaces assigned, however, are not based on a real world spatial relationship in which his home is on his left and his school on the right. If this were the case, the use of space would be topographical and showing the spatial relationship *itself* would be part of the intended message.

[14] Throughout this Analysis and Chapter 5, screenshots are used when visual aids are necessary to understanding the discussion preceding or following them. Some examples that focus non-visual aspects of SASL (e.g. sign order) do not have corresponding screenshots.

Before noting how the narrative continues to refer to these spaces in later constructions, let us look at a more explicit example of establishing space for later reference.

b) LANGUAGE LANGUAGE IX STRAIGHT LANGUAGE IX LANGUAGE GAY

There are two languages: Straight language and gay language.

Looking solely at the glossed form of the signs in (b) it is unlikely that one could extrapolate the meaning. The visual information plays an integral role in constructions such as these. By signing LANGUAGE in two distinct locations, the signer pluralises the subject LANGUAGE (more on pluralisation later in this chapter).

b.i) LANGUAGE (on singer's right side)

LANGUAGE (left side)

Figure 5: LANGUAGE and LANGUAGE

LANGUAGE

b.ii) IX[15] STRAIGHT LANGUAGE

LANGUAGE

b.iii) IX LANGUAGE GAY

[15] IX refers to an index/pointing sign. These are dealt with later in this chapter.

Figure 6: STRAIGHT and GAY

STRAIGHT GAY

The English translation may seem to be introducing an idea on which to elaborate. This is realised as the signer has used this construction to establish these two ideas in space in a manner congruent with Engberg-Pederson's (1993) *comparative convention.* There exists no true spatial relationship between abstract notions of "gay" or "straight" language, but the signer utilised the space available for later reference. It may seem problematic that both examples (a) and (b) utilise the same space, providing reference to more than one noun. It must be noted that examples (a) and (b) occur in separate discussions within the same narrative. Only once the signer has completed the discussion regarding home and school life does he reassign the space to new referents.

4.1.1.1. Reference to Nouns

Reference to these spaces previously assigned to something is how SASL creates subjects and objects. The same referent can then span over several constructions or an entire narrative – in which the meaning has been introduced earlier. Outside of that context, constructions viewed in isolation will lack the intended meaning. Of course, this need not always be the case. When space is not required, simple constructions can be formed in which nouns occur in the construction and no later mention is required. Consider the example on the next page.

a) IX DEAF. SHOULD SCHOOL NORTH-WEST GO

He is deaf. He should go to a school in the North West (province).

Figure 7: NORTH-WEST

NORTH-WEST

In (a) the noun construction SCHOOL NORTH-WEST occurs in neutral space in front of the signer. It is not assigned to any space, and the predicate GO does not agree with any space. In this way, the use of space is an option for the signer if he believes it would aid in conveying the intended message.

Reference to these spaces happens in two ways. One is an explicit reference to the space through a pointing sign or *index*. This will be discussed below. The other is more implicit and no direct reference is made to the assigned spaces but rather a predicate is produced in a way that incorporates that space, creating a meaning that includes the referent. This will be discussed under predicate constructions in 4.1.2.

As SASL is a language based in space, using space and vision to convey a message, referents that are actually present in the immediate environment should take on the simplest form afforded by the modality – pointing at the person/object.

Naturally, any signer is present for their own signing and so first and second person pronouns are produced as pointing signs to the referents themselves in real space.

For example:

b) PRO.1 IMPROVE
I improved.

Figure 8: PRO.1 IMPROVE

PRO.1 IMPROVE

Pointing signs are used to refer to anything in the immediate environment. Only when a referent is not present or is abstract in nature will the signer place the referent in space, thereafter referring to it as if it were present in the assigned space. A third person pronoun, however, is sometimes not placed in space prior to the reference to it. If the context is clear, an index to a space not assigned can be interpreted as a third person pronoun. For example, the signer explains how his parents consulted a doctor about his deafness. Using a role shift (discussed under 3.2.8 and 4.6) the signer shows the doctor explaining to his parents that he, a baby at the time, is deaf. This instance can be seen in (c).

c) DOCTOR INFORM PARENTS IX DEAF

The doctor informed my parents: "He is deaf".

Figure 9: DOCTOR INFORM PARENTS

DOCTOR INFORM PARENTS

Prior to the production of this construction, the space indexed to has not had a referent assigned to it. The parents, however, have been placed in the left hand signing space. The role shift acts as a kind of reported speech as the signer takes on the role of the doctor and signs *toward the space assigned to the parents*.

These indexes can also take on modifications of their parameters to illustrate possession and plurality. Pluralisation of a noun construction can happen in several ways, whereas possession appears to be evident in a modification of the handshape parameter. Consider the two examples below.

d) SIGN-NAME POSS.1 JOHN

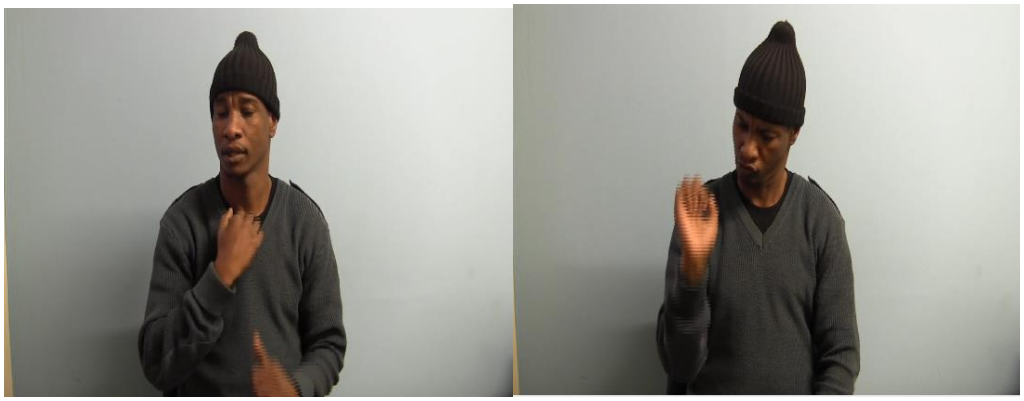
My sign-name is John.

e) POSS.3 SIGN-LANGUAGE GREAT

Their sign language was great.

In (e) the index toward the signer himself takes on a fist handshape as opposed to the standard index finger pointing sign. In (f) when referring to a group of deaf children's sign language, we see the same fist handshape directed outward at the space to which the children are assigned.

Figure 10: POSS.1 and POSS.3



POSS.1 POSS.3

This change in handshape (and orientation) shows that the index is possessive. Just as an index points *toward* its referent, the curled fingers of the fist handshape face the possessor within the construction.

Another modification of the index is used to show plurality. A circular movement parameter may be included in the index sign to show a group rather than an individual or single object. This is visible twice in the data glossed as PRO.3-ALL (3rd person pronoun – plural).

Figure 11: PRO.3-ALL

PRO.3-ALL

It is also important to note that in both instances, the sign occurs in the same space assigned to a group or idea. In the first instance, the sign occurs while the signer's right signing space is associated with school (in the home-school contrastive structure already established). The signer intends the referent to be the deaf children attending that school, and qualifies exactly who is being referred to with additional signs. If the space were assigned to a *group* rather than a location, an index to that

space would suffice to refer to that group, despite a seemingly singular index (without plurality modification).

f) GO SCHOOL STILL PRO.3-ALL IX MANY DEAF IX NEGATIVE++[16]
I went back to school and they (all the deaf children there) still showed negativity toward me.

Figure 12: MANY

MANY

This example also shows an alternative in pluralising a referent – by use of a number or quantifying sign. Just as separate lexical items such as quantifiers create plurality in spoken languages, the sign MANY creates the plural of DEAF (in this case reference to Deaf people/children). These same deaf children are referred to later in the narrative by a third means of pluralisation – a repetition or *reduplication* of a sign. Reduplication has several functions which are discussed later, but while on the topic of pluralisation of a noun construction, it is worth noting. Consider the example below.

g) Deaf CL: seated-person ++ LEARN SIGN-LANGUAGE
The deaf children learned sign language.

16 ++ indicates reduplication of the sign – that is a repetition of the sign. Dependent on context, this may be used for emphasis or, as in this case, to show the verb as progressive (Valli et al, 2005).

Figure 13: Classifier for seated persons

CL: seated-person ++

The noun construction here is achieved through the signs DEAF and a classifier construction (discussed later) to represent a seated person. The iconic representation of people seated in a row is granted through the classifier construction via reduplication of the sign in 3 different locations. Because a classifier representing a person occurs in rapid succession 3 times, the noun 'deaf child' is pluralised. Let us consider another example without a classifier construction:

h) DIFFERENT WAY++

There are different ways.

Figure 14: WAY and WAY

WAY WAY

The construction in (e) occurs twice in the data, in which the sign WAY is repeated. As seen in the above example, this reduplication is not performed in the same location. The sign WAY is typically produced in a manner that it resembles a path. Because, within the context of the construction, the signer is referring to *different ways*, the *ways* are shown to lead in two opposing directions. In this way, reduplication is used, firstly, as a method of pluralising the sign WAY; and secondly, modification of the direction and location allow the sign WAY to spatially correlate with the semantic context.

Returning to the noun constructions which are not present in the immediate environment, and which are not referred to by means of a pronoun, SASL's use of space in differentiating referents and referring back to them is evident in the data. As seen above, nouns can be assigned -or established in- signing space. In the example below, abstract concepts – namely *gay sign language* and *straight sign language* – are already assigned in space as seen in the example above (Figure 14 above).

i) IX SIGN-LANGUAGE STRAIGHT BEAUTIFUL YES BUT IX MORE

Straight sign language is beautiful, yes, but that (gay sign language) is more so.

Figure 15: IX SIGN-LANGUAGE STRAIGHT BEAUTIFUL YES BUT IX MORE

IX SIGN-LANGUAGE STRAIGHT BEAUTIFUL YES

BUT IX MORE

In this example, the signer uses an index to the space assigned to *straight sign language* and to clarify, signs SIGN-LANGUAGE STRAIGHT. When referring to *gay sign language*, the signer need not clarify. The spatial relationship and contrastive structure is clear to the viewer. A simple index to a space is semantically linked to the idea of *gay sign language*.

4.1.1.2. Sign Order in Noun Constructions

Noun constructions created using nouns themselves, indexing, and other aspects discussed above are often accompanied by descriptive signs to grant more information regarding the noun. Once again, for clarity's sake, the term *adjective* is maintained. As will be shown in the examples to follow, the traditional notion of an adjective may be too strict when taking into account the flexibility of SASL – especially when viewed under the framework of RCG.

Before describing the order in which paired nouns and adjectives appear in SASL, it is important to note that not all signs which appear to be adjectival are necessarily so. Some "adjective" signs, although produced identically, play the role of nouns or predicates. The context of the sign is heavily relied upon to deduce its function. In the examples below, signs that would, if in the presence of a noun, be considered adjectival, take on the role of a noun or a predicate.

a) IX DEAF
[PRN] [V]
He is deaf.

b) IX BORN DEAF
[PRN] [V] [ADJ]
He was born deaf.

c) PRO.1 GAY
[PRN] [V]
I am gay.

As explained later under predicates, without the presence of the copula, signs that may seem semantically adjectival perform the role of verbs. Within the data, the cases of DEAF and GAY are of interest as they present in the form of verbs (as shown above), as adjectives, and as nouns. RCG allows for a construction specific understanding of the elements found to create that construction. Where the distributional method would require a distinction and rules governing these 'different' signs which are produced identically, a constructionist approach avoids this problem. The signs DEAF

and GAY in the examples below play the role of nouns as they are used to refer collectively to deaf or gay people.

d) DEAF COMMUNICATE SIGN
[N] [V] [V]
Deaf (people) communicate and sign.

e) WOMEN INTEREST GAY
[N] [V] [N]
Women are interested in gay (people).

Unfortunately, an abundance of instances like this are not available in the data collected. Only a handful of examples present themselves, and are all in reference to DEAF or GAY as a consequence of the specific narrative data. There are, however, ample instances of "adjectival signs" being used as adjectives themselves. When an adjective appears adjacent to a noun or noun phrase, it performs a descriptive role in relation to that noun or noun phrase. The term adjacent is used as there appears to be no definitive preference of the adjective to precede or follow the noun phrase. The examples below illustrate this:

f.1.a) † LANGUAGE GAY
[N] [A]
gay language

f.1.b) † GROUP STRAIGHT
[N] [A]
a straight group (of people)

f.1.c) † FAMILY DEAF
[N] [A]
a deaf family

f.2.a)† DIFFERENT WAY++

[A] [N]

d*ifferent ways*

f.2.b) † HEARING PEOPLE

[A] [N]

hearing people

f.2.c) † SPOKEN LANGUAGE

[A] [N]

spoken language

As can be seen above, adjectives can precede or follow the noun they are describing in SASL. An important consideration is the ability for examples in (f.1) to appear in isolation as subjects and predicates. They are marked with daggers as they did not appear in isolation but as noun constructions. This once again stresses the importance of context within a language as flexible as SASL. There appears to be flexibility in the ordering of nouns and adjectives. As there is some ambiguity around adjectives, in that they can play the role of a noun or verb, it is important to specifically note the context in which they appear. If an adjective follows a noun, it may be playing the role of a predicate unless it is shown that the adjective is part of a noun phrase, for example, if a predicate follows that construction. Consider the examples below:

g) SIGN-LANGUAGE STRAIGHT BEAUTIFUL

[N] [A] [V]

Straight sign-language is beautiful.

h) GAY SIGN-LANGUAGE BEAUTIFUL

[A] [N] [V]

Straight sign-language is beautiful.

In the former construction, a noun is followed by two seemingly adjectival signs. Were the sign BEAUTIFUL omitted, STRAIGHT would form the predicate equating to the meaning *Sign-language is*

straight. When the second adjective is present, however, the previous adjective-type sign is in fact an adjective as part of the noun-phrase SIGN-LANGUAGE STRAIGHT. BEAUTIFUL then plays the role of the predicate. This construction is only ambiguous as two "adjective signs" are adjacent to one another. It would be possible for the noun-phrase construction to take on another form (as those shown above) where the adjective precedes the noun. Quite fortunately, the data provides a highly applicable example to illustrate this in the case of (h) GAY SIGN-LANGUAGE BEAUTIFUL. Both constructions take on the form [NP][V] where the noun-phrase can be made up of [N][A] or [A][N] – consistent with the flexibility of noun-adjective ordering within the noun-phrase.

SASL uses both lexical items and space to specify nouns. This is consistent with sign languages such as ASL (Neidle & Lee, 2006; Klima & Bellugi, 1979), BSL (Sutton-Spence & Woll, 1999), and Auslan (Johnston, 1991; Johnston & Schembri, 2007) to name a few. By looking at SASL through the lens of RCG, however, these spatial aspects can be directly taken into account as a morphosyntactic feature or a larger discourse feature when spanning across multiple constructions. Reference to these nouns is achieved through indexing, which is also capable of spanning across constructions and providing additional information through modifications. This same indexing has been noted in other sign languages such as ASL and Dutch Sign Language (Pfau et al., 2012), BSL (Sutton-Spence & Woll, 1998), Auslan (Johnston & Schembri, 2007), ISL as well as, Spanish, German and Hong Kong Sign Languages (Pfau & Bos, 2016). These conventions are clearly a product of the modality of a visuospatial language.

4.1.2. Predicate Constructions

As can be seen above, the ambiguity surrounding which signs constitute verbs or adjectives is noteworthy. The roles of these signs are highly contextual and not always clear cut. For this reason, verbs as they are traditionally understood (and the verb phrase) are not discussed separately from those constructions that may constitute predicates despite lacking a prototypical verb. This section discusses predicate constructions in SASL. The tendency of adjectival signs to act as predicates will be revisited, and nominal predicates addressed; and the different types of verbs in signed language will be discussed.

4.1.2.1. Zero Copula: Adjective and Noun Predicates

One of the first linguistic features of signed languages that is notable to English speakers is that it lacks the copula. Where English may use the copula to fulfil an obligatory verb in a predicate, SASL does not. This allows for sentences that consist of a subject, and what appears to be a verbless predicate. Consider the examples below:

a) IX DEAF
[PRN] [V]
Subject Predicate
He is Deaf.

b) PRO.1 BORN DEAF
[PRN] [V] [ADJ]
Subject Predicate
I was born deaf.

In the above examples, a typically adjectival sign DEAF (as seen in (b)) constitutes the entire predicate in (a). The sign DEAF alone constitutes the predicate in (a). In (b) the predicate is made up of BORN, playing the role of the verb, and DEAF, as an adjective. In English, words such as *deaf* are considered adjectives, but as RCG allows for construction specific categorization, the predicate is not necessarily non-verbal. Within this construction, DEAF is a predicate, despite potentially playing an adjectival role in another construction. In the same way, predicates can also be nominal. Again, where English would provide a verb in the form of the copula *is* in *My name is John Meletse,* SASL does not.

The examples illustrate how nouns can act as predicates.

c) POSS.1 NAME J-O-H-N-M-E-L-E-T-S-E
[DET] [N] [N]
Subject Predicate
My name is John Meletse.

d) SIGN-NAME POSS.1 JOHN

[N] [DET] [N]

Subject Predicate

My sign-name is John.

In this way, utterances that would equate to *They are children* or *He is a* boy would take the forms PRO.3 CHILDREN and PRO.3 BOY. These could easily be noun constructions if present in a larger construction. Produced identically in a different construction, they fit the description of a noun construction as discussed above. It is again suggested that context plays a significant role in determining the role of a sign, where nouns, adjectives, and indeed verbs (as discussed below) can form the predicate within a construction. When dealing with classifiers below, we will see that single signs can even take on several roles at once.

4.1.2.2. Verb Predicates

A verb predicate or verb phrase is typically understood as a construction made up of at least one verbal element, and its dependents which may include auxiliaries, objects, complements, and adjuncts. A verb phrase can also consist of a lone verb, without these dependents, and will still constitute the predicate of a sentence. Examples are used from the data to illustrate how verb constructions occur in SASL.

a) PRO.1 **IMPROVE**

[PRN] **[V]**

*I **improved**.*

_____nmf

b) DEAF **!COMMUNICATE!** **!SIGN!**

[N] **[VP]**

*Deaf(people) **communicated and signed a lot.***

_____neg

c) PRO.1 **DON'T-KNOW**

[PRN] **[V^{NEG}]**

*I **don't-know.***

The verb phrase found in (b) consists of two verbs adjacent to each other. Without any specific markers, serial verbs such as these are somewhat ambiguous. For example, it is unclear if the verbs occur consecutively or concurrently; or their precise relation to subjects and objects (Sebba, 1987). Due to the semantic similarity in this instance, as well as the same non-manual features occurring across both, I have interpreted these verbs as coding a single event. As SASL lacks a conjunction sign corresponding to the English *and*, we may expect to find serial verbs fulfilling the role of both a complex predicate and two consecutive verbs. Further study is needed to determine whether subtle markers exist to distinguish these. The two verbs have been emphasised using non-manual features as well as modifications to the speed and movement of the signs. In English, the complement of the verb might take the form *a lot.* These modifications will be discussed later. This construction takes the form of [SBJ] [VP], and in conjunction with the noun phrase acting as the subject, creates a simple sentence (in the same way as the example found in (a)). The same construction is observed in (c), with the exception of the verb being negated as opposed to emphasised. The sign produced for DON'T-KNOW is a single sign as opposed to using the auxiliaries *do* and *not* as dependents of the verb, as we would observe in English. Negation and negative sentences are discussed later. The above examples are intransitive verbs. Transitive verbs are discussed under verbs.

4.1.2.3. Verbs

As noted earlier, Carol Padden's (1983) classification of verbs in ASL is widely accepted by sign language researchers and has been used in studies of ISL (Sandler & Lillo-Martin, 2001; Meir, 2002; Aronoff et al., 2004) and Auslan (Johnston, 1989). This classification is largely dependent on understanding verb agreement in signed language. Meir (2002) explains it in the following way:

> …a verb is said to agree with its arguments if the form of the verb is determined by the pronominal features of its arguments. In sign languages, nominals in a clause are associated with discrete locations in space, called 'R(eferential)-loci… Verb agreement in sign languages then takes the following form: a verb agrees with its arguments if its initial and final locations are determined by the R-loci of its arguments.
>
> (Meir, 2002.pp 419-420)

Padden (1983) first makes the distinction between verbs that can inflect for agreement and those that cannot. Those that fall into the latter category are known as plain verbs. The form of plain verbs remains the same regardless of their arguments. For example, signs in SASL such as those shown below. Plain verbs are produced in the same way when referring to oneself, another or several arguments. For example:

a)	MOTHER	FATHER	IX	DON'T-KNOW
		[NP]		[V]

My mother and father (they) didn't know.

Figure 16: DON'T-KNOW

DON'T-KNOW

b)	PRO.1	IMPROVE
	[PRN]	[V]

I improved.

Figure 17: IMPROVE

IMPROVE

c) PRO.1 UNDERSTAND FULL

[PRN] [V] [ADV]

I understood fully.

Figure 18: UNDERSTAND

UNDERSTAND

In the above examples, the signs are produced in a static location and the movements involved in production of the signs are not influenced by arguments of the verb. Irrespective of the argument that 'doesn't know', 'understands', or 'improves', the sign is produced in the same location.

Verbs that fall into the former of Padden's categories (those that can inflect for agreement) are further divided into those that agree with locatives (spatial verbs) and those that agree in terms of a subject and an object (agreement or transitive verbs). Liddell (1990) calls these 'depicting verbs' and 'indicating verbs'.

Spatial verbs agree with the locations found in the verb and denote the path of movement – where the start and end point of the movement itself are treated as arguments. For example, if a signer were trying to convey a move in a game of chess, the sign MOVE would not agree with the chess player and the piece but rather with the beginning and end points of the piece's movement. In the data, the signs GO and MOVE illustrate this:

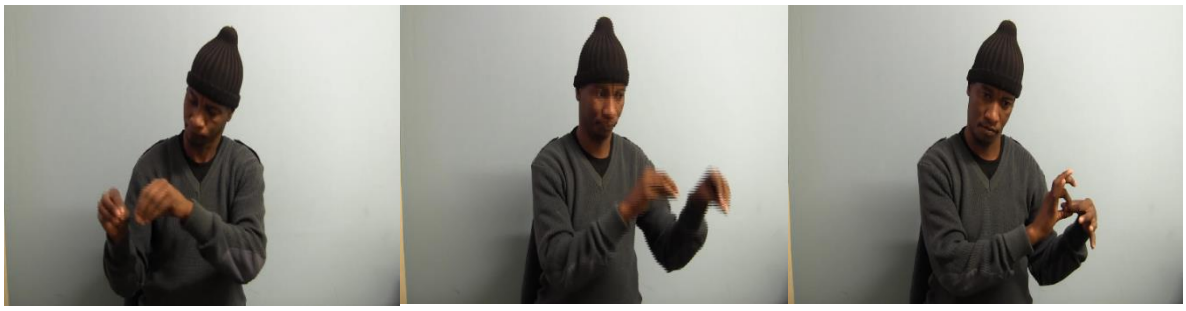
a[17]) SCHOOL[1] CLOSE [1]MOVE[2] HOME[2]

[N] [V] [V] [N]

When school closed, I moved home.

Figure 19: SCHOOL CLOSE MOVE HOME

SCHOOL[1] CLOSE



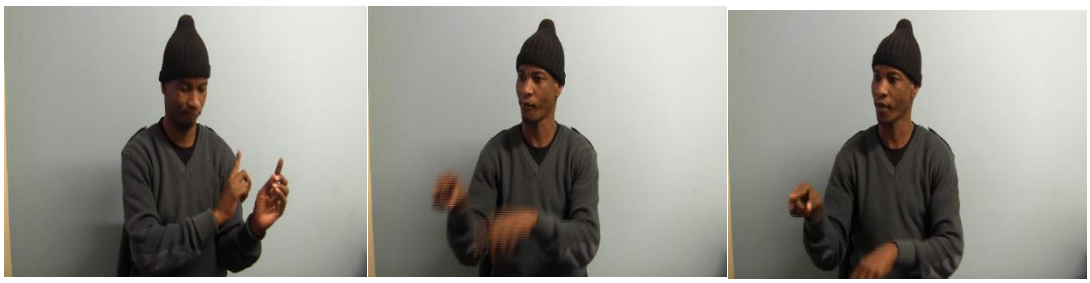
[1]MOVE MOVE[2] HOME[2]

b) OPEN SCHOOL [2]GO[1] IX[1]

[V] [N] [V] [R-LOCUS]

When school opened, I went (from home) there.

Figure 20: GO IX



[2]GO GO[1] IX[1]

17 The superscript 1, 2 and 3 accompanying the gloss indicate the direction and arguments of transitive verbs and show 1st, 2nd and 3rd person respectively. The number preceding the glossed verb shows its starting position in space and therefore its spatial referent. Similarly, the number following the verb is its final position and shows the recipient of the verb.

c) STRAIGHT[2] GAY[1]

[N] [N]

(here are the straight and gay communities)

Figure 21: STRAIGHT and GAY

STRAIGHT[2] GAY[1]

c.ii) [1]CL:person-move[2] IX GROUP STRAIGHT CA: casual-signing

[V] [N] [V]

If a gay signer enters a straight environment (a straight community), they sign more casually.

Figure 22: Classifier for person moving

[1]CL:person-move CL:person-move[2]

The signs MOVE and GO are spatial verbs as they agree with signing space in reference to actual spaces. Movement to and from this signing space, then, refers to actual movement between the associated real spaces. In (a), the signer produces the sign SCHOOL in the far right of his signing space (shown here as [1]), associating the space with school. The sign MOVE is produced starting in the

right signing space and moves to the left, at which point the signer produces HOME in the leftward space (shown here as ²). This construction serves two purposes: providing the information of a subject's movement in relation to two places; and establishing these spaces in terms of referents that may be used later in the narrative, as in (b). With the established spatial references, construction (b) does not require clarification on the direction of movement. OPEN SCHOOL is signed in neutral space in front of the signer before GO which begins at the space previously assigned to HOME and ends at the space assigned to SCHOOL. Importantly, construction (b) does not immediately follow construction (a) within the narrative. Spatially assigned referents maintain their association to assigned space and can be referred back to at any point. That space can, however be reassigned if needed. For example, in (c), the signer begins by producing the signs STRAIGHT and GAY on opposing sides of the signing space. These spaces, previously used to depict HOME and SCHOOL, are now reassigned to groups of people – namely the straight and gay communities. This could be considered an establishing construction in its own right. Of course, the straight and gay communities are not places. Rather, it is the case that the signer uses space syntactically to create arguments from abstract concepts. This allows them to take on a similar verb to those in (a) and (b), where an agent can "move" from one environment into another. Typically, spatial/depicting verbs occur as classifier constructions. These will be discussed shortly.

Agreement verbs agree with a subject and object, and will so inflect based on the R-loci of the arguments. These verbs demonstrate transfer, and also show the direction of the verb between arguments. Transitive verbs like SHOW, GIVE, TELL or HELP use the direction of movement to show the source and the goal of a verb. In this way, *I showed him* and *He showed me* are differentiated by the direction in which the verb moves. This is congruent with Auslan (De Beuzeville et al., 2009), BSL (Sutton-Spence & Woll, 1999; Morgan et al., 2006) and ISL (Sandler & Lillo-Martin, 2001) transitive verb structure too. An example from ISL is given below:

a) ^{1}SHOW^{2} (where 1 and 2 mark the arguments and their position marks the start [source] *and* end [goal] points of the verb)
I show you.

b) ^{2}SHOW^{1}
You show me.

Below are two examples from the data, in which the verb's start and end positions agree with the arguments.

c)	DOCTOR	^{1}INFORM^{3}	IX^{3}	PARENTS
	[N]	[V]	[R-locus]	[N]

The doctor informed (them) my parents.

Figure 23: INFORM IX

^{1}INFORM INFORM^{3} IX^{3}

d)	IX	^{3}IDENTIFY^{1}	PRO.1	CA: effeminate signing
	[R-locus]	[V]	[PRN]	[ADJ]

They identified me as an effeminate signer.

Figure 24: IDENTIFY

^{3}IDENTIFY IDENTIFY^{1}

In example (d), the doctor informs the parents – who are the object undergoing the verb. PARENTS is therefore a dependent of the verb and the verb phrase takes the form [V][N]. In example (e), the agreement occurs in the opposite direction, where the signer is undergoing the verb. The sign IDENTIFY is produced directionally (where the dominant signing hand moves *toward* the signer to complete the sign) showing the recipient of the verb. In this way, the direction of the verb also agrees with both the subject and object.

4.1.2.4. Summary of Predicates

The absence of a copula in SASL results in predicates that may be purely nominal or adjectival. To an English speaker, these could well be interpreted as stative verbs. Verbal predicates are, however, still commonplace. Padden's ASL classification of verbs appears to apply well to SASL and allows an understanding of how SASL, like other signed languages, uses space to convey interaction of and between referents. Verb phrase and verb constructions are influenced by the spaces in which their referents reside. In this way, transitive verb constructions are construction specific, as no two constructions necessarily maintain the same referents, semantically *or* spatially.

4.1.3. Simple Clausal constructions

Simple constructions can be said to take on the schema of [SBJ] [PRED], where the subject and predicate may take on a number of constructions. As shown above, subjects and objects may take the form of a noun sign, an index to a referent in the immediate environment or pronominal reference, or combinations of these. The use of referential space also allows for noun signs to be established and referred to in space. Indexes to that space following that establishing construction denote referents previously assigned to that space. Classifiers, although possibly presenting nominal information, are considered as more complex, as they may contain additional information. It is important to keep in mind, however, that in constructions with classifier constructions a typical noun construction may not be present.

Predication occurs by means of relating attributes, actions etc. to the subject. As we have seen, they can take the form of seemingly nominal, adjectival or verbal signs. As a zero-copula language, SASL allows for properties of the subject to act as predicates. Using Padden's (1983) classification of verbs in sign language, these verbal types and how they are achieved in SASL are shown. Transitive verbal

predicates can spatially agree with referents (or rather, spatial mapping can occur). In further chapters, it will be seen how classifier constructions and constructed actions act as predication in various ways. These will be found in the following section – when dealing with more complex constructions.

4.2. Compound & Complex Sentences

A traditional understanding of compound or complex sentences is based on a componential model and defined by which components are combined and the manner in which they are combined. Above we have looked at simple sentences/constructions or rather we have looked at how noun and predicate constructions exist. The use of space is an integral part of establishing and referring to the noun constructions in SASL. Predicates, too, correlate with this space within transitive verbs. Compound sentences are traditionally identified as having more than one subject or predicate. As we have seen in establishing referents as noun constructions, SASL can place more than one subject in space and interactions/relationships can be introduced in later constructions. These subjects can therefore span several constructions. However, it is *reference* to these which form our subjects and objects in consequent constructions. Consider the examples seen earlier in 4.1.1:

Figure 25: Establishing Constructions

LANGUAGE	LANGUAGE	Establishing Constructions
IX STRAIGHT LANGUAGE	IX LANGUAGE GAY	

Figure 26: Compound Construction

IX SIGN-LANGUAGE STRAIGHT BEAUTIFUL YES BUT IX MORE *Straight sign language is beautiful, yes, but that (gay sign language) is more so.*	Compound Construction

Two subjects and two predicates are present in the above construction. The subjects take the form of indexes to spaces previously assigned to left and right signing space in the establishing constructions. Predicates take the form of BEAUTIFUL and MORE, in which MORE implies *more beautiful* within the comparative structure. A conjunction sign BUT is also used, joining the two potentially independent constructions. The sign BUT is used several times in the narrative. In all cases, the sign BUT is found between two complete stand-alone constructions (or independent

clauses). Conjunctions such as BUT exist to serve what is deemed to be a grammatical function. The function of BUT is used to convey the notion of an exception. Words in English such as *and*, *or*, and *because* join phrases, clauses and sentences in different ways. Under the framework of RCG, we view these phrases, clauses and sentences as constructions; and the use of a conjunction is not only a means to join them but rather part of a larger construction itself. These are compound constructions. In truth, they are simply constructions which take on a specific form and are schematised and known to a user of the language. That is – English speakers may schematise compound constructions based on a conjunction, its function, and the two or more constructions in question. A simplistic example may be the form [Constr][Conj][Constr]. Without conjunctions such as *because* or *and*, the relationship between these constructions (be it causal, additive etc.) is unclear. If searching for the signed equivalents of English words such as *and, or,* and *because*, a linguist would not find all of these signs outside of man-made pseudo-languages such as a manual form of English. The functions, however, can be accommodated. If-then statements, comparisons, exceptions etc. are all present in SASL, and occur in a manner that is congruent with signed language. For example, in a construction in which more than one predicate construction occurs, no manual marker is evident. The predicate constructions appear adjacent to one another, without the need of a coordinating conjunction such as *and* in English. Consider the examples below.

				_____nmf
a)	DEAF	!COMMUNICATE!	!SIGN!	
	Deaf(people) communicated and signed a lot.			
				neg
b)	IX	SOCIALISE	COMMUNICATE	CANNOT
	There (at home), I could not socialise or communicate.			

While some "function" signs may exist such as BUT and OR[18], those that do not (such as *because, if* etc.) find their functions fulfilled in other constructions. For example, explanatory constructions that would, in English, typically follow *because* are realised through the Rhetorical Question Construction. Topicalisation also allows for if-then statements in SASL. The various uses of the rhetorical question

[18] Unfortunately, the sign OR does not occur in the data. It has been observed within the Johannesburg Deaf community and is taught by native Deaf speakers within the SASL courses at the University of the Witwatersrand.

are discussed later in 4.3.1, as well as topicalised constructions in 4.3.2. It is these construction schemas that are important in RCG. Constructions that appear to be common, but remain construction specific and intricately linked to communicative context and semantics.

When looking at complex sentences, the idea that a specific make-up of clauses/phrases equates to a complex construction is not the case. Rather the function of subordinate clauses is achieved through a construction's overall schema, form, and semantic components. That is not to say that complex constructions do not exist but rather that the stringent requirements of an independent clause coupled with any number of subordinate clauses need not be applied. Complex constructions are those which are, quite simply, complex. Those constructions in SASL which contain multiple modifications, sub-constructions, classifier constructions, and/or non-manual features are those which will be considered complex. In this discussion, it will be shown how a typically understood complex sentence is achieved in SASL, i.e. how SASL puts forward information generally found in subordinate clauses. Although certain forms of information are better suited to the common constructions below, those that are not (and are evident in the data) are addressed here in terms of their semantic meaning.

4.2.1. Temporal Information

Information relating to time is generally presented at the beginning of a construction. A temporal construction may be as vague as *in the past* or as specific as *yesterday at 3 o'clock*. Examples from the data place the viewer of the narrative in timeline accordingly as the signer proceeds. Consider the examples below.

a) AGE SIX MOVE IX
When I was six years old, we moved there (North-West Province)

b) SCHOOL CLOSE MOVE HOME
When school closed, I went home.

c) OPEN SCHOOL CL: person-moving IX
When school opened, I went back there (school).

d) TIME-PASS CL: person-moving HOME
After some time, I went home.

e) NOW TWO-THOUSAND-AND-ONE PRO.1 PRIDE MYSELF
Now, in 2001, I am proud of myself.

As can be seen in the data, the information regarding *when* the events took place tends to precede any other information. Because SASL lacks a copula, as well as any tense markers within verbs, tense is established in a subordinate clause preceding the main clause. Another option does exist in the form of a rhetorical question (discussed below).

4.2.2. Conditional Information

If-then statements in SASL appear to mainly take the form of topicalised constructions. There do exist IF signs (a lexicalised fingerspelling I-F, and another variant with the F handshape omitted) but these are unfortunately not present in the data provided. Similar IF signs have been seen in ASL & ISL (Baker et al., 2016), BSL (Sutton-Spence & Woll, 1999) and Auslan (Johnston & Schembri, 2007).

In Australian sign language, conditionals can also be created by establishing a condition, followed by a situation, state, or event to occur if that condition is met (an example in SASL can be seen below in (a)). Johnston & Schembri (2007) view the condition as a subordinate clause relating to the main clause that is the event. There is however no explicit marking when an IF sign is not present (apart from non-manual features). Johnston & Schembri (2007) note that the NMF are very similar to those found in Topicalisation. Semantically, the signer draws attention to a condition, then states the event; where the non-manual features occur only over the former construction. In ASL, Reilly et al. (1990) state that only these prosodic features mark a condition. SASL appears to utilise this same construction, with NMF occurring over the condition. Consider the example below.

rb

a) STRAIGHT² GAY¹ ¹CL: person-moves² IX GROUP STRAIGHT CA: casual-signing
(straight and gay communities) If a gay signer enters here (the straight community), they sign more casually.

In this construction, the eyebrows of the signer are raised over the signs CL: person-moves IX GROUP STRAIGHT. As the classifier construction for person originates in the space associated with the gay community and ends in the "straight side", the movement of a gay person into a straight environment is that which is brought to the foreground as the condition. It is also clarified to where the "person" goes – IX GROUP STRAIGHT or *the straight community*. The event is shown through constructed action, displaying a very casual, relaxed signing style. In order to mark the movement of the signer from the gay to straight community as a condition for the constructed action, the non-manual features are imperative. This conditional, however, is congruent with topicalisation, which is discussed later. A discussion of this construction and screenshots is available in 5.1.

Below I will discuss commonly occurring constructions in SASL in the form of Rhetorical Questions and Topicalised constructions. As has been stated up until now, these constructions can account for various aspects of the language's apparent peculiarities or idiosyncrasies when viewed in the light of traditional grammars. Although rhetorical questions and topicalisation occur in various languages around the world, it must be stressed that signed languages use these forms consistently to achieve various types of constructions to add information.

4.3. Common Constructions

These constructions appear as what would be classified as simple, compound, and complex sentences, suggesting that these constructions are more of an overarching tendency within SASL (and other sign languages) rather than a necessity or rule to be followed in specific constructions. These constructions are a form or schema that are utilised in sign languages across the globe.

4.3.1. The Rhetorical Question Construction

The data contains several instances of rhetorical questions, where the signer poses a question which he immediately answers. This is an alternative method of conveying information to the audience. Below are examples of WH-rhetorical questions, in which a question sign is used to set the signer up to provide more information. The question words found within the constructions are accompanied by non-manual features glossed above the words as rhet – which is a raising of the eyebrows and widening of the eyes.

rhet

a) HOME WHERE S-O-W-E-T-O

Where is my home? Soweto.

rhet

b) GO WHERE B-A-R-A H-O-S-P-I-T-A-L

Where did we go? *Bara Hospital.*

Figure 27: WHERE

rhet

WHERE

rhet

c) DEAF SOCIALISE PRO.1 CRY++ WHY SIGN-LANGUAGE IX LIKE MONKEY

When I socialised with deaf(people), I cried and cried. Why? I thought their sign language was like a monkey's.

rhet

d) IX LIKE FAMILY DEAF ALL WHY COMMUNICATE UNDERSTAND FULL

They were like a family, all the deaf(children). Why? They communicated and understood fully.

Figure 28: WHY

rhet

WHY

rhet

e) IX TEACHER TEACH WHAT TOTAL-COMMUNICATION

What did the teacher teach? Total communication.

rhet

f) GO-BACK HOME SAME++ HOW FEEL-CONFLICTED

I went back home where it was the same. How? I felt conflicted.

Figure 29: HOW

rhet

HOW

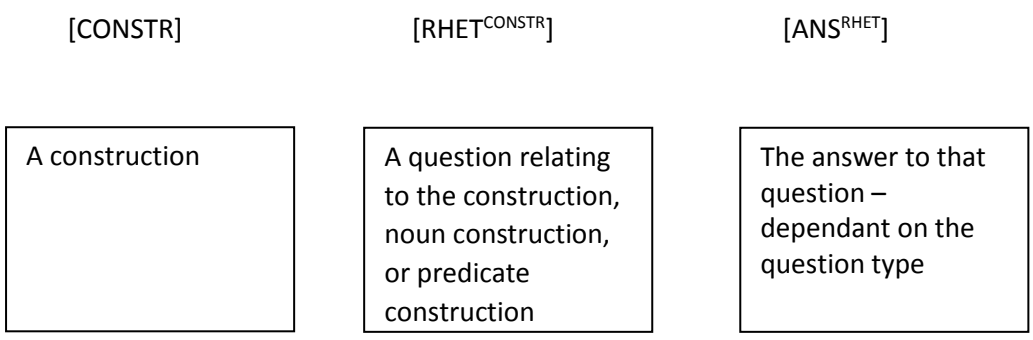
As can be seen in these constructions, the question signs are used mid-construction. In constructions (c) and (d), we are presented with reasons to why the former constructions are true. Constructions (c) and (d) take on the form [CONSTR][RHET][CONSTR]. The rhetorical WHY might be said to act in the same way the English conjunction *because* in that the construction following WHY explains the entire construction preceding it.

In (a) and (b) locations are given in relation to where the signer lives and where he/she is going. (a) takes on the form [SBJ][RHET][N], where the noun provides information about the preceding subject. (b) takes on the form [PRED][RHET][N] in which the noun is given as the object of the predicate and not the implicit subject.

Examples (e) and (f) rely more on a contextual and semantic understanding of the prior construction. Because an entire construction lies before the question sign, it is not entirely clear, from a syntactic perspective, to what the "answer" is referring.

In (e), information is given about what the teacher taught and takes the form [CONSTR][RHET][N]. In (f), the signer conveyed that returning home was familiar due to feel-conflicted. The form of (f) can be viewed as [CONSTR][RHET][PRED]. These constructions appear to fulfil a similar function, but differ in the schema in which they are represented. This is why RCG posits construction-specific representations of constructions. On a broader level of understanding rhetorical question constructions may be schematised as:

Figure 30a: Rhetorical Question Construction Schema



The relationship of the question to either a noun construction or predicate construction is necessarily semantically based. Nouns can take on *properties* or *states*. Verbs can take on *manner*. Entire constructions may take on a tense, in which [CONSTR] WHEN? [TEMP] (temporal information as discussed above). Where English provides information through subordinate clauses, SASL provides

additional information through use of the rhetorical question. An example of how this schema is realised can be seen below in the case of (e).

Figure 30b: Rhetorical Question Construction Schema – Example (e)

[SBJ PRED]	[RHET^{PRED}]	[ANS^{RHET}]
[IX TEACHER][TEACH] The teacher **teaches**	[WHAT^{TEACH}] What (was taught?)	[TOTAL-COMMUNICATION^{WHAT}] Total-communication (is what was taught)

Although it is often thought that WHY in (c) and (d) equate to the English *because*, the schema presented here for rhetorical questions accommodates the WHY rhetorical construction.

Rhetorical questions can also take on a less open-ended structure, in which the answer is a definitive *yes* or *no*. Instead of using a common declarative structure, the signer posed the statement as a question, thereafter being able to negate or affirm it. Consider the examples below.

		rhet	neg
g)	IX UNDERSTAND FULL FUTURE		NO
	Did they fully understand the future?		*No.*

		rhet	neg
h)	PRO.1 EXPERIENCE MYSELF GAY		NO
	In my experience, was I gay?		*No.*

Although the data only negative responses to rhetorical questions, these kinds of rhetorical questions have been documented in Auslan and ASL (Johnston & Schembri, 2007; Baker & Cokely, 1980). Signers answer yes to create an affirmative sentence or, as seen above, a negative sentence.

Sign languages such as ASL (Pfau et al., 2012), BSL (Sutton-Spence & Woll) & Auslan (Johnston & Schembri, 2007) have been noted to contain the rhetorical question – including (but not limited to) the raising of the eyebrows as a non-manual marker. Wilbur (1994) terms these constructions *pseudo-clefts* as the structure tends to bring specific information into focus. In English, a pseudo-cleft may take a form such as:

What he wanted was coffee.

In the above example, the desire of the subject is brought to the foreground as opposed to the subject or object. In SASL, the same information produced as a Rhetorical Question may take the form:

i) rhet

IX WANT WHAT COFFEE

Johnston & Schembri (2007), in light of this, deem the rhetorical question similar to Topicalisation structure.

The rhetorical question construction can be used for a range of constructions, from the simplest to the most complex. A simple declarative construction may make use of the rhetorical question as seen in (a) or (b). Compound or Complex constructions can provide information including temporal, causal, or adverbial information through the rhetorical structure. As the data provided so few examples of this construction, further study which specifically focuses on rhetorical constructions in SASL is necessary.

4.3.2. Topicalised Constructions

The notion of *topicalisation* is traditionally understood as a syntactic device in which specific information is brought forward (realised earlier) in an utterance in order to present it as a topic to be discussed (Kroeger, 2004). The topicalised information is therefore emphasised and consequent information can be understood by the receiver as pertaining to the *topic*.

Topicalisation occurs when attention is drawn to specific information within a sentence by bringing it to the beginning of the sentence (Kroeger, 2004). Globally, research suggests that sign languages use this structure quite freely and has been noted in ASL (Emmorey, 2002), ISL (Meir & Sandler, 2008), BSL (Sutton-Spence & Woll, 1999) and Auslan (Johnston & Schembri, 2007). Constructions take on a kind of topic-comment structure, in which a topic is introduced, and information to follow relates to that topic. In the sign languages mentioned, topicalisation occurs by use of specific NMF – raised

eyebrows, a pause between the topic and comment, and a head tilt, although some studies have noted differences in NMF across different sign languages including, excluding, and adding some. Examples include: A backward head tilt marking the topic (Liddell, 1980); a head nod in the construction following the topic or *comment* (Deuchar, 1983). Below are examples of topicalised sentences from ASL.

a) _____t

MARY JOHN LOVE

As for Mary, John loves her.

b) _____t

SPORT EVENT PRO-1 ENJOY RUGBY

As for sporting events, I enjoy rugby.

The way in which topicalisation in sign languages is viewed by researchers differs based on their respective views on sign language word (or sign) order. In ASL specifically, sign order has been discussed from perspectives of generative grammar, a broader cognitive-functionalist approach, and cognitive linguistics (see Pfau et al. 2012 for an in-depth discussion).

Neidle et al. (2000) approach ASL from a generative perspective and posit that ASL's word order is hierarchical and predominantly SVO (Subject-Verb-Object). From this viewpoint, topicalisation is a deviation from the typical SVO order and viewed separately as a complementizer phrase.
From a cognitive-functionalist perspective, topicalisation in ASL is deemed a necessary and typical sentence type, and topic-comment structure could be considered basic word order. Topicalisation is commonplace in ASL discourse (Janzen, 1999) and "probably other sign languages" (Pfau, Steinbach, Woll, 2012: 251).

Within the data, several instances of topicalisation were observed. A head tilt and/or eyebrow raise was also present across the signs to be topicalised (glossed as 't'). Below are two examples from SASL.

c) _____t

DEAF CL:children-sitting ³LEARN¹ SIGN-LANGUAGE POSS.3

It was from the deaf-children that I learnt their sign-language.

Figure 31: Topicalised DEAF CL:children-sitting

DEAF CL:children-sitting

d) _____t

SIGN-LANGUAGE IX PRO1 TRY LEARN++

That sign-language, I tried to learn it.

Figure 32: Topicalised SIGN-LANGUAGE IX

SIGN-LANGUAGE IX

In (c), a classifier construction is used to establish children-sitting and is topicalised. The signer then produces the sign LEARN from the space in which he signed the classifier. The signer's 3rd person possessive pronoun is also directed at this space. Topicalising the object of the construction allowed for a reference point when using the transitive verb and a possessive pronoun. That is not to say that the location of the topicalised sign is entirely necessary beforehand. In (d), it does not serve that function. Topicalisation is a natural part of SASL and can occur without fulfilling any specific purpose other than bringing certain information to the foreground. Like other signed languages, SASL can utilise a topic–comment structure. In both instances within the narrative, the sign language referred to is that of the deaf children in the school. In (c), the message to be conveyed is from where the signer learnt this sign language. By topicalising *the deaf children*, this information is brought to the foreground, and utilizing the space in which the classifier was produced as a source of the sign LEARN and as a possessive reference POSS.3, relationships between the signer, children, and the sign language are clear.

As with the rhetorical question construction, the use of topic-comment structure spans different sentence types, once again based on function. In simple constructions, topicalisation can be used not as a necessity, but as a general structure for establishing a subject, and providing information on that subject. A noun construction may be topicalised, and commented on to create simple constructions where the comment is essentially the predicate. Consider the construction below.

e) _____t

PRO.3-ALL PRIDE DEAF

As for all of them (deaf children), they were proud to be deaf.

In this construction, the subject/noun construction is topicalised, suggesting topicalisation is a general structure as put forward by Janzen (1999). The only function of topicalising the subject of the construction is the creation of emphasis in regard to the subject. This reason for this emphasis only becomes clear when the context of the narrative is taken into account. The signer is discussing the deaf children he met at school and how they are a family through their shared use of sign language. Later in the narrative, we see a similar topicalisation of the noun construction as seen below.

f) _____t _____neg

PRO.1 MYSELF JOHN PRIDE FAMILY NO

I, myself, John, did not have (this) pride or sense of family.

The emphasis placed on subjects in these two constructions (which are not adjacent to one another in the narrative) creates a contrast of their respective experiences. In this way, topicalised subjects in simple constructions take on the same schema as found in other simple sentences in SASL, with topicalisation playing a discourse role dependent on context.

Topicalisation, however, does not only occur over noun constructions. Events, and predicates too can take on topic marking, creating conditional statements. As seen earlier, a construction describing a situation was topicalised in its entirety.

g)

_____t

STRAIGHT[2] GAY[1] [1]CL: person-moves[2] IX GROUP STRAIGHT CA: casual-signing

(straight and gay communities) If a gay signer enters here (the straight community), they sign more casually.

The topicalised constructions of the person's movement (and clarification of the goal) form an event as the topic in the sense of *If this were the case*, creating a condition. The comment to follow is another predicate illustrating the result of that condition being met.

Another way in which topicalisation occurs over larger constructions is in the case discussed earlier – portraying temporal information. In the example below (repeated with NMF glossed), the temporal construction appears in the initial position, followed by a predicate. In the same manner as seen in the previous example, I revisit the example in 4.1.1. The *situation* of *school closing* is topicalised to indicate that the predicate to follow is a *result* of the topicalised construction.

h) _____t

SCHOOL CLOSE MOVE HOME

When school closed, I went home.

Not all temporal information is topicalised within the data, but all temporal constructions appear in the initial position, as shown earlier. The distinction exists only in the semantic intention of the construction. For example:

i) AGE SIX MOVE IX

When I was six years old, we moved there (North-West Province)

In the above construction, AGE SIX is not topicalised, because the predicate is not a *result* of the temporal information. If AGE SIX were topicalised, a conditional is created in which John only moved home *because* he was aged six. This can be compared to the preceding examples, in which both temporal and conditional information is conveyed. Topicalisation, viewed in this way, exists for pragmatic and discourse function rather than a marker for a syntactic device being employed. It is important to note that topicalisation occurs through non-manual features and simultaneously over signs or entire constructions. Other uses of non-manual features are discussed below.

A possible schema for the above topicalisation constructions may be illustrated as so:

[SBJ^{TOPIC}] [PRED^{COMMENT}] in which the topic is nominal only.

[CONSTR$^{TOPIC\text{-}CONDITION}$] [PRED$^{COMMENT\text{-}RESULT}$] in which the topic is an event and acts as a condition

4.4. Non-Manual Features in SASL

As we have seen above, topicalisation and rhetorical questions take on very specific non-manual features in SASL. NMF play many other roles in signing, creating or modifying the meaning of a particular form. As non-manual features are considered part of sign languages' phonology, an RCG approach is interested in the symbolic link that exists between these NMF (in conjunction with signs within a construction) and the meaning portrayed. Many non-manual features are conventional enough to be self-explanatory in that they are typical facial expressions. Facial expressions that correlate (conventionally) with specific emotions such as happiness or anger are produced simultaneously over the signs in which that emotion is prevalent. Sutton-Spence & Woll (1999) term

this lexical distinction – in which the facial expression is part of the sign itself. These expressions are obligatory as they add to meaning.

4.4.1. Negation

Signs with negative associations such as CANNOT or NO also require one or more non-manual features such as a head shake, furrowed eyebrows, or a downward turned mouth. In the same way as above, negative non-manual features are obligatory in negative signs. Negation is not only possible through single negative signs. A sign, or indeed, a construction can take on a negative meaning if modified with negative non-manual features. Consider the SASL examples below. These include a furrowing of the brow and a head shake glossed as *neg*.

				neg
a)	IX	SOCIALISE	COMMUNICATE	CANNOT

There (home) *I couldn't socialise or communicate.*

Figure 33: IX SOCIALISE COMMUNICATE CANNOT

IX SOCIALISE COMMUNICATE CANNOT(neg)

neg

b) PRO.1 ACCEPT

I did not accept.

Figure 34: ACCEPT

ACCEPT(neg)

In (a), the sign CANNOT already creates a semantically negative sentence. The non-manual features naturally occur over this sign. It is worth noting that the NMF are not present during the verbs SOCIALISE and COMMUNICATE. In the case of (b), negative NMF have been added to the standard predicate sign to ACCEPT create the negative form of that verb. No other lexical item or construction is necessary to convey the negative form. The sign NO only occurs in rhetorical questions as discussed earlier. In these cases, non-manual features would be found over the question signs as well as negating or affirming the "response", creating a negative or affirmative sentence.

Unfortunately, the data supplied few negative constructions but from the small number observed, SASL appears to be linked directly to non-manual features in negating a typical declarative sentence.

4.5. Classifier Constructions

In the methodology chapter, it was noted that classifier constructions are prevalent in almost all sign languages researched to date. In the narrative data, only a handful of examples present themselves. Using an understanding of classifiers Supalla's (1986) work and research regarding these constructions since, the examples can be identified as part of the productive lexicon of SASL and explained in terms of a Radical Construction Grammar framework. As a large amount of information

is simultaneously expressed in single classifier constructions, explanations will endeavour to remain as simple as possible without disregarding what may be possible in larger, more complex classifier constructions. Consider the examples found in the data below.

a) DEAF **CL:person-sitting++** ^{3}LEARN^{1} SIGN-LANGUAGE POSS.3

*It was from **the deaf-children** that I learnt their sign-language.*

Figure 35: Classifier for seated persons

CL:person-sitting++

b) CL:person-move HOME

I went home.

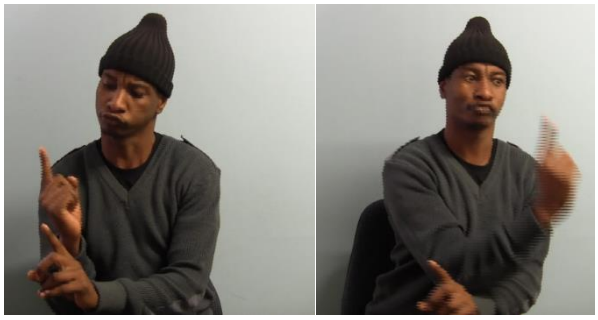
Figure 36a: Classifier for person moving

CL:person-move

c) **CL:person-move** IX GROUP STRAIGHT CA:casual-signing

*If a gay signer **enters a straight environment** (a straight community), they sign more casually.*

Figure 36b: Classifier for person moving



CL:person-move

d) CL:hold-baby

Figure 37: Classifier for holding baby

These are the only classifier constructions found in the data as eliciting classifiers was not the focus of the task. In (a), the signer uses a classifier construction to illustrate a group of deaf children. This is an example of an *entity classifier*. He does this by producing a handshape typically used for *seated persons* a number of times in quick succession in line to the right. A flick of the wrist occurs twice during the movement suggesting that the movement of his hands do not portray a movement of the seated figure, but rather a rapid introduction of several referents contained within a single sign. The movement found within the classifier is not indicative of any action or verbal information of that referent but rather reduplication. This reduplication, as discussed earlier, pluralises the referent. The sign follows the sign DEAF. As this information could not be included within the classifier construction, DEAF prefaces the classifier to clarify that aspect of the referent. The classifier begins in the centre of the signing space and concludes in the signer's rightward signing space. Throughout the narrative thus far, this space has been associated with the school for the deaf which he

attended. The sign LEARN follows the classifier, and is produced from that same space toward the signer in the same way explained under predicates. Placing the classifier in space and referring back to it suggests that it acts as a noun construction in this larger construction. The choice of a *seated-person* classifier handshape in this classifier contributes only to a visual image of seated children in a school setting.

In (b) and (c) we see another two entity classifier constructions containing movement. In these cases, however, the movement does actually denote movement of the referent. In both cases, the classifier handshape is that of an *upright-person* and is not pluralised in any way. Despite being very similar in nature (visually and spatially), the meaning of these two constructions differs in terms of where the referent is moving to and from. The context in which (b) appears is within an explanation of how the signer returned home when school closed, in which notions of *school* and *home* have been established in space beforehand. The example (c) occurs later in the narrative where the spaces have been reassigned to represent the *gay* and *straight communities*. Although the classifier representing a *person* moves from the right to left signing space in both cases, the referent and the locations involved are not the same in terms of meaning. This illustrates the role that context plays in creating classifier constructions. It is important to note that independent noun phrase/constructions or predicate constructions are not present within either classifier construction. The classifier handshape of the index finger represents a person, but that person's movement is also shown within the same sign. In this way classifier constructions may simultaneously act as both the noun and verb. Provided there is enough contextual information, a classifier alone would be able to constitute a fully independent construction. There is no evidence in the examples found within the data to suggest that the manner of referent's movement is portrayed.

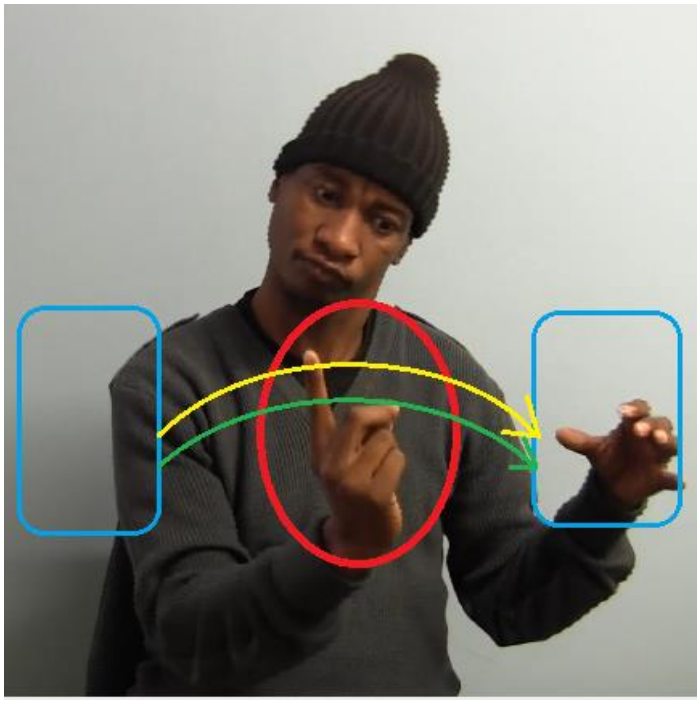
The example shown in (d) is the only instance of a handling classifier construction in the narrative provided. This also occurs within an instance of *constructed action*, which has been discussed in the methodology chapter. Examples of constructed action in SASL will be addressed shortly. In (d), the handling classifier is achieved by the signer's hands depicting hands that are holding a baby. The hands in this construction act as the hands of the baby's parents (this is achieved and best explained through constructed action) and are therefore a *body-part* classifier in which the signer's hands represent the hands of an adult within the narrative. The orientation and handshapes of the hands visually convey the holding of an object, and the context of the narrative provides the information

that the object is, in fact, a baby. The baby itself is not depicted in the sign whatsoever, but as will be seen shortly, the constructed action preceding this classifier allows for clarity.

It may seem problematic to ascribe any sort of schema to classifier constructions as the slightest change in information to be conveyed may invoke a necessary change to portray that information. For example, if the baby in (d) were being rocked to sleep, a movement would need to be added to illustrate that visually. If the example in (b) required that the person *rush*ed *home*, we may see an increase in movement speed within space. The various elements that can be depicted visually, as well as the context of the construction, must be included. Of course, with data better suited to a discussion of classifier constructions, numerous examples could be presented and explained in terms of RCG constructions.

As stated above, provided all aspects of meaning within a classifier construction can be accounted for, a description is possible. In order to illustrate the aspects of a classifier in terms of schemas to be employed by the signer a holistic view of the classifier is necessary. Classifier constructions are to be viewed as single constructions in which various features occur simultaneously, as with any sign. Although the parameters are typically understood as phonological features, within classifiers these parameters and their modification are to be considered meaningful. Below is a proposed simplistic schema for an entity classifier mapped onto an example from the data - (b) from above.

Figure 38a: Entity Classifier Schema



The classifier handshape element (red) denotes information regarding the nominal entity. A person, car, or animal would be produced by means of different handshapes depending on type.

The predicate element (yellow) conveys information regarding the action (if any) of the referent through movement of the nominal element. If this action occurs between spatially assigned referents, the direction of the

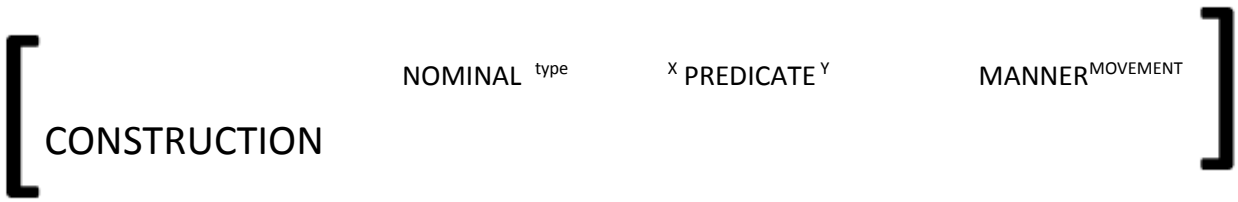
movement will indicate that transitive aspect. This space (blue) is either topographical or syntactic (as discussed earlier). Topographically, this movement denotes actual movement of the referent between spaces assigned *based on their real world spatial locations*. Syntactically, the spaces can be assigned to different referents by the signer which, as seen in the distinction between (b) and (c) above, alters the meaning of the construction. Simply put, the predicate element uses space in the same way as predicate constructions described earlier.

The manner element (green) occurs to provide adverbial information regarding the nominal and predicative elements. The manner of action is expressed visually within the predicate element.

Finally, the entire construction must be viewed within the context it is found and not in isolation. As within examples (b) and (c), spatial locations may differ referentially, providing a different meaning; and although the nominal element's handshape may consist of salient features of size and shape, within a different context this element may differ in meaning too. It is important to remember that not all elements need be present to construct a classifier. In the case of (a), a referent is being established by use of a classifier construction. As there is no predicate within the construction, movement only accounts for pluralisation through reduplication.

Classifier constructions are holistically realised containing nominal, predicative, and manner elements, when in combination depicts (through iconic salient features and spatial representations) semantic information. An example of how this schema is realised is shown below.

Figure 38b: Entity Classifier Schema



Example (b) is represented below in this structure.

Figure 38c: Entity Classifier Schema – Example (b)

Signers cannot *learn* classifiers as they would lexical items, as they are productive in nature and differ according to context and the intended meaning. Acquiring a schema in which various elements may be utilised in unison, however, is entirely possible. Assuming the elements are provided and symbolically linked to the correct semantic (conventionalised) meaning within the discourse, there is essentially no restriction on information to be conveyed.

4.6. Constructed action

As discussed earlier, constructed action refers to a signer's ability to take on the role of an entity and perform actions or dialogue. Following Liddell's (2003) notion of surrogate space based on mental spaces and conceptual blending theory (as explained in 3.2.3), constructed action can be viewed as constructions in which form and meaning pairings occur through conceptual blending, utilising space, iconic structures and non-manual features. Below are several instances of constructed action within the data. The context in which these occur will be supplied to ensure clarity.

Constructed action is glossed similarly to classifier constructions – where English descriptions associated with meaning follow "CA:".

a) CA: infant-waving-arms CA:parent-shocked;CL:holding-baby

Figure 39a: Constructed Action

CA: infant-waving-arms CA:parent-shocked;CL:holding-baby

In this instance, the signer has not yet placed any referents in space within the narrative. Preceding this construction, it is explained that the signer's parents were not aware he was deaf when he was an infant. In the former constructed action, the signer takes on the role of himself as an infant, as viewed by another. In the latter constructed action, the signer takes on the role of one of his parents

(there is no indication as to which), showing their reaction to the infant by means of non-manual features and a handling classifier construction.

It is important to note that the formation of hands and non-manual features displayed in the first instance of constructed action do not correspond with any conventional sign. Alone and out of context, this construction is essentially meaningless. It is only through the use of constructed action as a conventionalised means of expression in signed languages that the meaning can be conveyed.

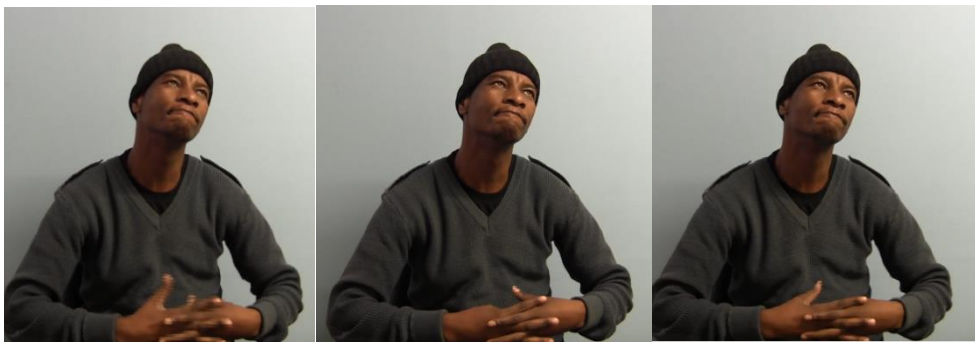
Looking closely at the former construction, the signer has tilted his body in an upward and backward direction, to convey an infant that is reclined and faced upward. Non-manual features observed include a closing of the eyes, opening of the mouth and slight protruding of the tongue. In this way, the signer takes on the posture, as well as the facial constitution, of an infant being looked down upon. Within the constructed action, the face (and therefore facial expression) and hands (and therefore signing, if any) are ascribed not to the signer as the narrator of the story; but to the infant. The construction to follow changes the perspective from which this mental space is being viewed from one of looking down upon the infant to a perspective in which the parent's reaction can be seen. Instantaneously, posture and non-manual features are changed, coinciding with the classifier construction in which an infant is being held. By assuming the role of the parent, any non-manual features, hands, and posture are now that of the parent's. We observe a downward gaze by the signer at his hands (in which the infant exists in mental space). Non-manual features express a conventional appearance of confusion as well as a sharp backward head movement conveying surprise. Consider the following example of CA: twiddling-thumbs preceded by the following construction:

b) IX SOCIALISE COMMUNICATE CANNOT

There (home), I couldn't socialise or communicate.

b.ii) CA: twiddling-thumbs

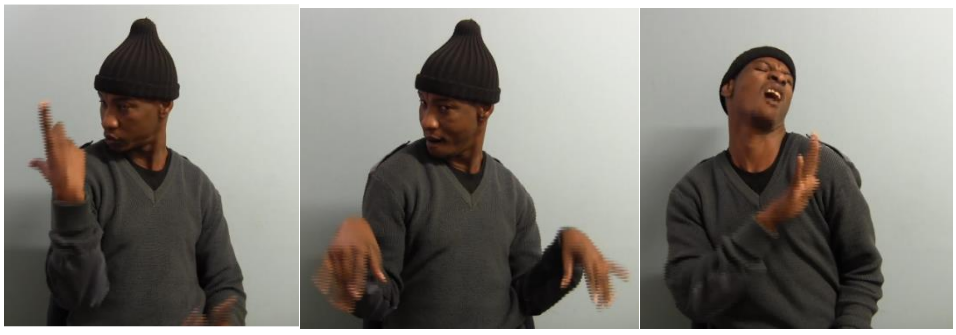
Figure 39b: Constructed Action



In this example, the signer is describing the contrast between school and home life during his education. The preceding construction explains that while at home, he could not socialise or communicate with anyone. The constructed action to follow illustrates the boredom he experienced at home, having nobody to communicate with. The role of his former self is taken on and the form displayed is literally the twiddling of thumbs to express boredom. Non-manual features include an upward eye gaze and pursed lips, congruent with a conventionalised expression of boredom or impatience. It is again the case that without contextual clues, placing this action in a scenario of boredom, it holds no meaning and is not associated to any referent. It is, however, clear in the context of the scenario expressed by the signer prior to the constructed action.

c) CA: camp-signing

Figure 39c: Constructed Action



In this example, the signer is discussing how the straight and gay communities tend to sign differently. He explains that the gay community of signers spend a lot of time socialising with women and this instance of constructed action depicts how they sign when socialising with women. Although this constructed action does consist of some dialogue, and that dialogue is essentially that

of the *depicted* signer rather than the signer himself, the dialogue exists only to portray the *manner* in which these signers sign. The signer has taken on the role of an individual from the gay signing community – within a scenario in which socialisation with women is occurring. The manner of signing is therefore attributed to that referent and acts as a predicate, following the scenario set up beforehand in which a gay signer socialises with women. Examples in which constructed dialogue occurs within constructed action is also present in the data, in which the opinions of the referents are portrayed through this construction. Consider the example below.

d) CL:many-people-looking-at-one-person HEARING; CL:one-person MANY
CA: IX GAY PRO.1 GET

Figure 39d: Constructed Action

This construction begins when, in the narrative, the signer has returned home from school. Using a classifier construction, the signer places himself in the leftward signing space using the person classifier and conveys that a number of people are observing/viewing him. He takes on the role of this group of people as he shifts his body and head to the rightward signing space. The constructed action is briefly interrupted in order for the signer to clarify the people he is portraying – that of hearing people. What follows is a construction directed at the space in which the classifier was established, in which the signer takes on the role of these hearing people. The construction [IX GAY PRO.1 GET] or *He is gay, I get it* is dialogue from the perspective of these hearing people. A number of factors indicate this. Contextually, the signer is involved in a discussion surrounding how others identified him as being homosexual before he himself identified as such, at school as well as (in this

case) in his home community. In the initial classifier construction, the signer is portrayed as a single figure in the leftward signing space, being viewed by a person/group of people. Before this group of people is clarified as hearing people, the signer's body has shifted in such a way that he appears to be performing the *viewing* of the lone figure. In this way, he has taken on the role of the hearing people. This body placement is present throughout the constructed dialogue. The dialogue to follow uses an index to the space in which the lone figure was placed referring to the signer, and PRO.1 to the hearing community. The intended message is that the hearing community as a whole identified the signer with being homosexual.

In terms of Radical Construction Grammar and how we might understand constructed action, constructions such as those above are not necessarily what is expressed as a schema, but are a discourse/pragmatic frame in which the construction takes place. This creates a scenario in which aspects of form are ascribed to a referent that is identifiable through contextual information. Certain markers allow the viewer to be aware of this frame of discourse, such as a shift in body and head position.

In constructions such as these, the *meaning* aspect of the construction frames the form, and the form is only linked to meaning within that context. The identical form in another context may mean something else or be entirely meaningless. Through Radical Construction Grammar's holistic approach to constructions, taking into account functions such as constructed action across a number of constructions, constructed action is accommodated.

4.7. Summary

In this chapter, I described how SASL establishes and references noun constructions using space. Adjective-noun ordering within noun constructions is addressed and shown to be flexible. Predicate constructions are shown to consist of verbal signs, as well as seemingly adjectival or nominal signs due to the absence of a copula in SASL. Different verb types are explained, and the manner in which verbal predicates interact with spatial referents is described. When looking at more complex constructions, it is evident that non-manual features play a large role in determining larger construction types. Those addressed include topicalisation, the rhetorical question, temporal and conditional information. These common construction types allow SASL to achieve complex and compound constructions. Classifier constructions and constructed action are explained briefly and a schema is proposed for an entity classifier. It is important to note that through classifier

constructions, signs may take on multiple roles of subject and predicate simultaneously. Identifying constructed action within signed utterances is also shown to be imperative to understanding the intended message as signed utterances may be attributed to referents within the narrative rather than the signer himself. Considering these various methods of articulation, identification of smaller constructions, uses of space and NMF go a long way in understanding and describing larger, complex constructions.

Chapter 5: Holistic Analysis

So far I have looked at various features of SASL under the view of Radical Construction Grammar in isolation. In discussions of specific aspects, others have been omitted. Constructions have been viewed in isolation to ensure an understanding of how SASL may be formed and understood. Under the framework of Radical Construction Grammar, however, these aspects cannot be treated as constituents, as they are in componential perspectives. Rather, the combination of these aspects in a specific context and discourse frame, coupled with the signer's choice and utilization of form, creates meaningful constructions. Several complex constructions have been selected to be discussed in their entirety. Any aspect of phonological or morphosyntactic information will be described, as well as influences from semantic and discourse features. Any information not provided within previous chapters, which may be necessary in a specific construction, will be introduced in an *ad hoc* fashion.

Below is the first of three constructions that will be discussed. Although, strictly speaking, each line below is considered a construction in its own right (as well as the subsequent constructions that create these), narrative structure and the use of space makes viewing certain constructions impossible in isolation. In the previous chapter, the minimum context was given to help illustrate points being made. What follows is an attempt at a comprehensive description. As will be seen, further research in specific areas is required to ascertain all aspects related to each construction. A notation more explicit than conventional glossing may be necessary. As will be shown, contextual information plays a large role in determining meaning. For this reason, proposed schematic or conceptual frame information is put forward. Glosses and pictures are used as a reference to provide clarity.

5.1. Example 1:

t
LANGUAGE[1] LANGUAGE[2]

t
IX[2] STRAIGHT[2] LANGUAGE[2] IX[1] LANGUAGE[1] GAY

DIFFERENT SIGN LANGUAGE

t
IX[1] GAY SIGN-LANGUAGE[1] CA: feminine-signing

ØOVER-HERE[2] IX[2] STRAIGHT[2] SIGN-LANGUAGE[2] CA: masculine-signing

t
IX[1] GAY CA: feminine-signing

PRO.1 INTEREST COMPARE

From the establishing constructions leading into the topic of discussion through till the signer's final comment, a number of interrelated constructions appear. Each will be discussed below.

t

LANGUAGE[1] LANGUAGE[2]

Figure 40a: Example 1 – Line 1

LANGUAGE[1] **LANGUAGE[2]**

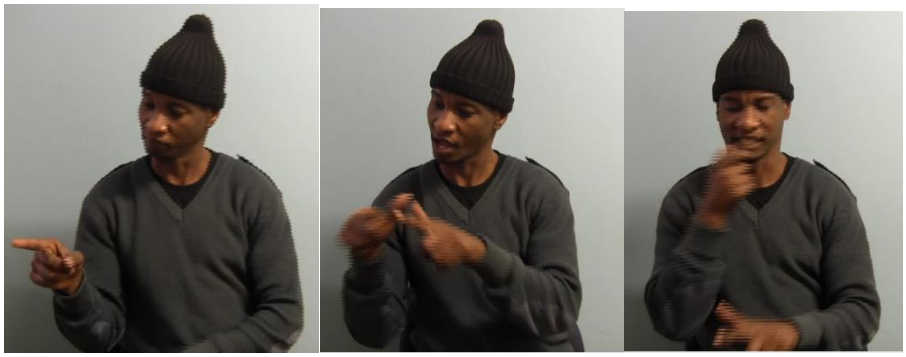
As discussed earlier under noun constructions, this establishing construction places two languages in referential space - namely the rightward and leftward signing space respectively (glossed as superscript 1 and 2). The reduplication of the sign LANGUAGE in two separate spaces simultaneously achieves this and pluralises the nominal *language*. The two languages are topicalised through raised eyebrows. Within this construction, the signer shifts his body and eye gaze toward each space to emphasise that they are separate and establish a comparative frame. In the next construction, the signer establishes what these two languages in question are – namely "straight" and "gay" language.

t

IX^2 STRAIGHT^2 LANGUAGE^2 IX^1 LANGUAGE^1 GAY

Figure 40b: Example 1 – Line 2

IX^2 STRAIGHT^2 LANGUAGE^2



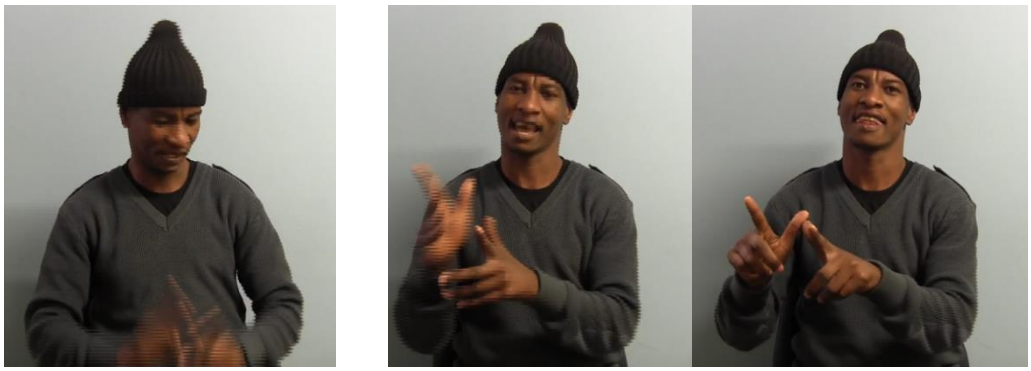
IX^1 LANGUAGE^1 GAY

Using indexes, notions of GAY and STRAIGHT language are mapped over the two 'language spaces'. In this way, the signer allows the viewer to build a physical image of his mental image, in which certain information is contained separately on either side. The sign STRAIGHT is not strictly directional but as it contains a straight movement (generally away from the signer), it is signed toward the space associated with straight language. It is possible that the body placement is an influence as the signer has positioned his body toward each space when assigning these notions. The

sign GAY, however, can only be produced on the chin and maintains a short downward movement. Being bound to a location on the body, it is not 'directed' toward any space as STRAIGHT may be. In both instances, however, body and eye gaze shift toward the spaces in which these ideas are placed. These constructions also appear to be topicalised throughout by means of raised eyebrows.

DIFFERENT SIGN-LANGUAGE

Figure 40c: Example 1 – Line 3



DIFFERENT SIGN - LANGUAGE

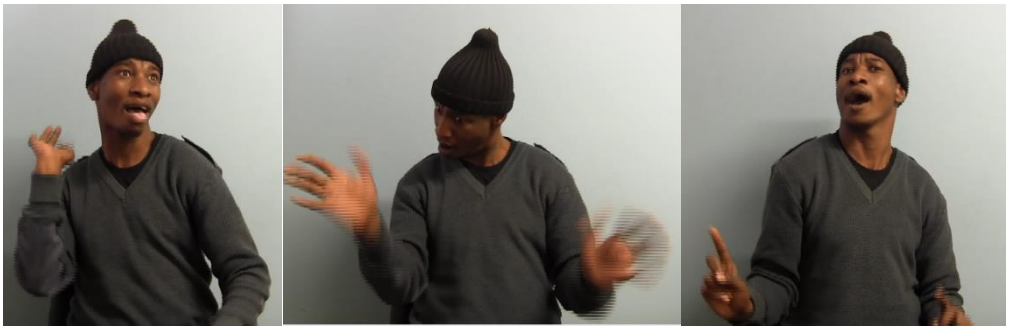
In this construction, body direction and eye gaze returns to the audience/viewer of the narrative. Prior to this, the idea that these two languages are sign-languages has not been portrayed. Here it is explicitly stated. The subjects in this construction have, at this point, been established. Our signer is discussing two languages- one in a gay context one in a straight context. They are also sign-languages, and they are different. This paints a picture for the recipient of the signing. Using signing space and positioning attributes within these spaces allows the viewer a physical representation of the signer's mental space. In this case, a comparative frame in which two languages (or language types) are of interest. The initial two lines have been topicalised, placing the two languages (straight and gay) as the topic. The third construction is a predicate comment, stating that these two (sign) languages are different. Lines 1-3 can therefore be viewed as an overarching construction of the three.

t

IX[1] GAY SIGN-LANGUAGE[1] **CA: feminine-signing**

Figure 40d: Example 1 – Line 4

IX[1] **GAY** **SIGN-LANGUAGE[1]**



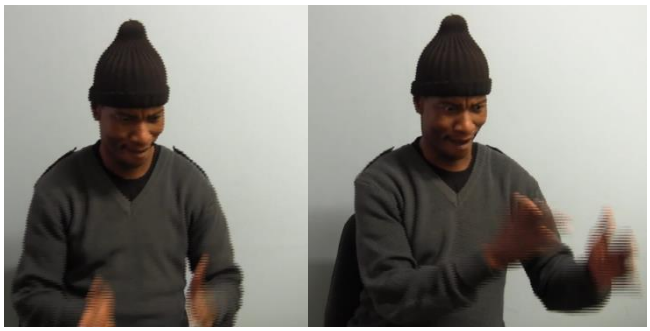
CA: feminine-signing

Having established these ideas of gay and straight language in space, the signer's following constructions begin to portray *how* they differ. Topicalising IX GAY SIGN-LANGUAGE, it becomes the topic and subject within this construction. Body direction and eye gaze is toward the space associated. The predicate is achieved through constructed action, showing the manner in which signing occurs within this frame of 'gay' sign language.

As the signer is discussing signed language, the constructed action is that of signing in a specific way. This signing is attributable not to the signer, but rather one who uses the sign language type being discussed – that is, a user of 'gay sign language'. This construction is essentially adverbial to the signing itself. This 'type' of signing is depicted as fluid and animated; with head movements, an open mouth, and inconsistent eye gaze. These mannerisms are depicting a 'camp' kind of signing. This is contrasted in the following construction to illustrate the difference – returning to the overarching comparative structure. The signer uses a sign glossed as OVER-HERE to illustrate the shift in topic within his mental space and within the comparative structure. While the sign is spatial in nature, it is not depicting an actual movement of any referent but rather performs the same function as the English expression *On the other hand*, setting the viewer up for an alternative of what has just been discussed.

$^{\emptyset}$OVER-HERE^{2} IX^{2} STRAIGHT^{2} SIGN-LANGUAGE^{2} CA: masculine-signing

Figure 40e: Example 1 – Line 5



$^{\emptyset}$OVER-HERE^{2}

STRAIGHT^{2} **SIGN-LANGUAGE^{2}**

CA: masculine-signing

The sign glossed as OVER-HERE originates in neutral space as the constructed action preceding it does not occur in the signer's rightward 'gay' space. If ideas and notions have been placed in space, the discussion can move onto another idea, represented physically by moving the hands into another space. The sign moves toward the leftward signing space, where it is reiterated what that space represents. The signer produces an index and the signs STRAIGHT SIGN-LANGUAGE in the

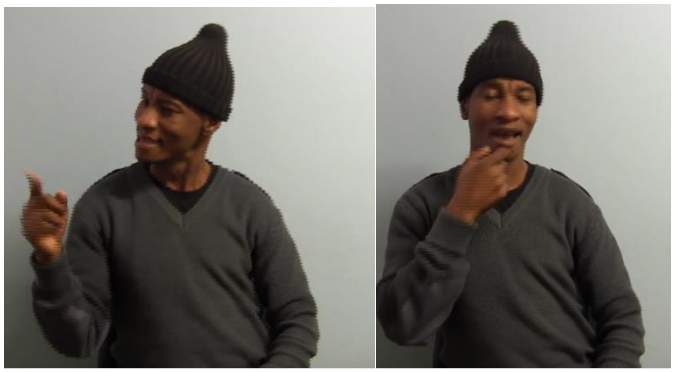
leftward signing space to achieve this. In the same way as the previous depiction of the alternative space and corresponding language 'style', the signer uses constructed action to illustrate the manner in which signing occurs in 'straight sign language'.

The constructed action again acts as a predicate, illustrating the signing of a person using the language style in question. 'Straight' signing is depicted as fast signing with sharp movements and long holds between signs. The signer's eyebrows are furrowed before and throughout the constructed action, with a concentrative eye gaze maintained toward the leftward space. Unlike the preceding construction regarding 'gay sign language', the signer has not topicalised 'straight sign language'. It is notable that the furrowed eyebrows occurring over the constructed action begin during the clarification of the spatial referent in IX STRAIGHT SIGN-LANGUAGE, beginning during the production of STRAIGHT. This may be a phonological anticipation of the construction to appear. It is also, however, notable that topicalisation may not be obligatory in this construction type. The use of space to map the signer's mental image onto real space is clarity enough for the viewer as to the topic of discussion.

__t

IX[1] GAY CA: feminine-signing

Figure 40f: Example 1 – Line 6



IX[1] **GAY**

CA: feminine-signing

The above construction brings ‘gay sign language’ to the foreground of discussion again, in which the signer adds constructed action to contrast once more with the masculine signing preceding it. To ensure the viewer follows, the rightward signing space is referred to again, topicalising the index. Within the constructed action, we see a similar signing style and non-manual features as before when depicting a more “camp” signing style.

Throughout all these constructions, space has been utilised to create a comparative view of these two signing types - from establishing these spaces as referents to giving them meaning and attributes. The final construction acts as a comment on the comparison the signer has just made.

PRO.1 INTEREST COMPARE

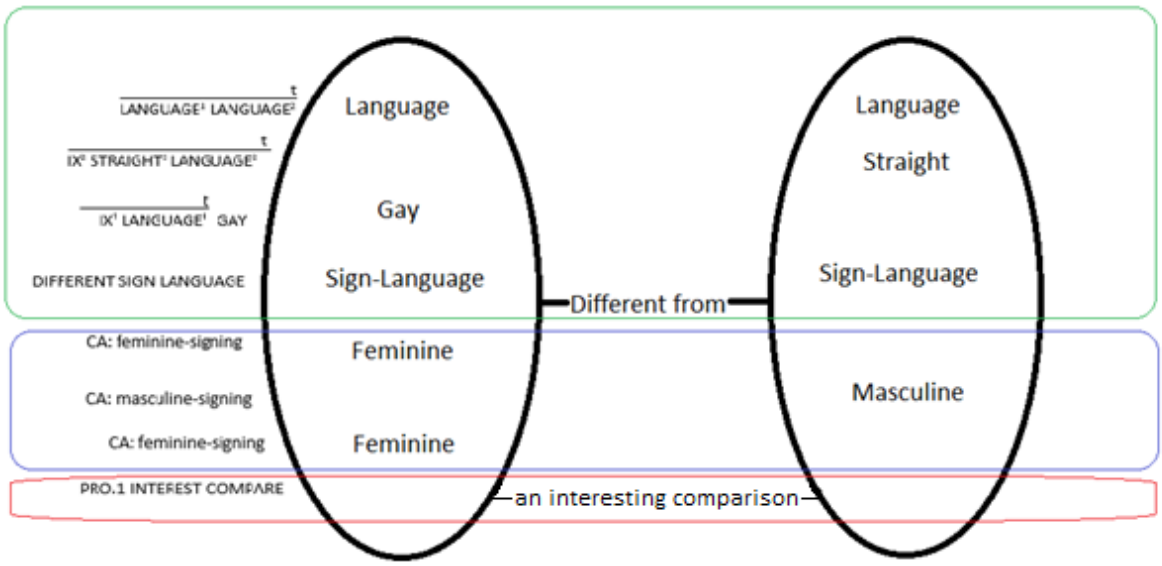
Figure 40g: Example 1 – Line 7

PRO.1 **INTEREST** **COMPARE**

Although all the preceding constructions are not overtly topicalised, this construction acts as a final comment on the overall narrative. It may be a construction in its own right, but it relates heavily to what the signer has been discussing. The sign COMPARE itself, outside of this context is produced in

the same way. Iconically, it resembles the weighing up of two entities side by side. In this construction, the entities of comparison took on the spaces being weighed. This sign is particularly effective within the context and the signer emphasises this by use of eye gaze to the left and right signing spaces as he signs COMPARE. The sign INTEREST does not have any obligatory non-manual features. The signer, however, employs a head nod and wide eyes to emphasise his own interest in this topic – that is, variation of signing in the gay and straight communities. Below is a diagram illustrating the signer's depiction of mental space onto real space.

Figure 40h: Example 1 – Mental & Real Space



Initial constructions (green) establish the subjects and comparative frame. The comparison itself (blue) is created through constructed action in reference to each of the spaces. Finally, the signer comments (red) on this comparison as a whole, treating all preceding constructions that make up the comparison as an implicit referent. In the next construction, a similar use of space can be seen. Space is once again used to create a frame in which the subject/s can be established.

5.2. Example 2

STRAIGHT[2] GAY;IX[1]

t

[1]CL: person-moves[2] IX GROUP STRAIGHT CA: casual-signing

In the same manner as the previous example, a topicalised construction can be found within an established frame of special representations of gay and straight. In this construction, however, the *language* associated with these notions is not what is being discussed. Rather, the spaces are used to represent groups of people or the gay or straight *communities*. Although this is not initially clear, use of a topicalised construction aids in conveying a situation as a condition for a result, which is shown through constructed action. Here, the space is not used to allow a comparison, but rather as a frame in which to set the condition.

STRAIGHT[2] GAY;IX[1]

Figure 41a: Example 2 – Line 1

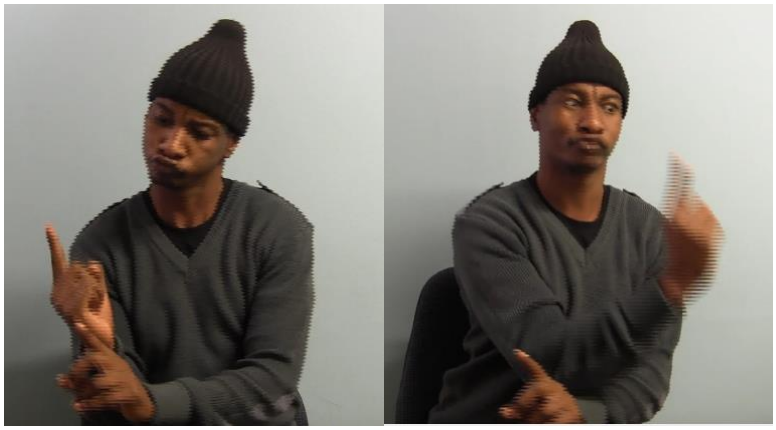
STRAIGHT[2] GAY;IX[1]

Notions of *straight* and *gay* are once again placed in space before the signer. In this instance, GAY and an index IX are simultaneously produced – a benefit of the modality. As this frame has been seen in earlier constructions, the signer signs these rapidly before moving onto the intended message.

t

[1]CL: person-moves[2] IX GROUP STRAIGHT CA: casual-signing

Figure 41b: Example 2 – Line 2



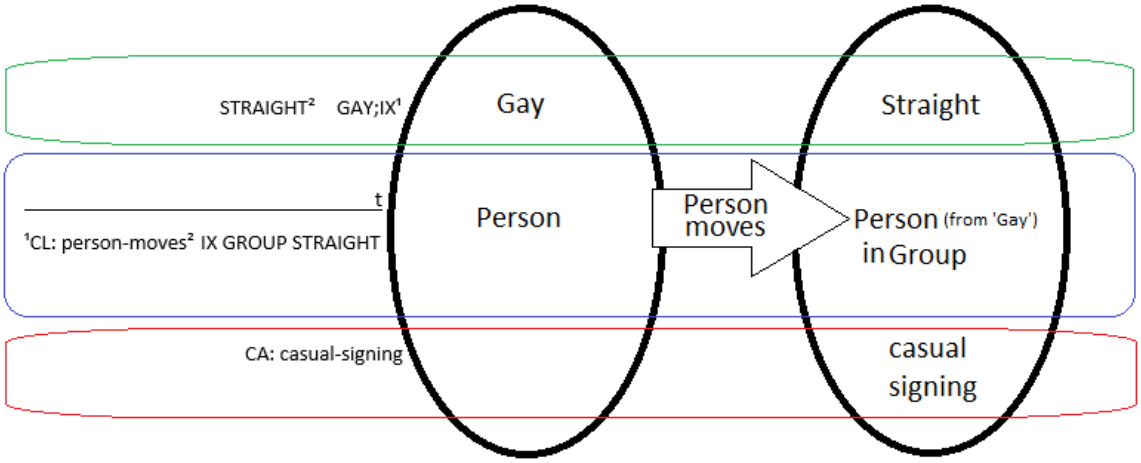
[1]CL: person-moves[2]

IX GROUP STRAIGHT

CA: casual-signing

The signer begins a classifier construction in the rightward signing space associated with the notion of 'gay'. The classifier is that of a single upright person. The movement of the classifier denotes movement into the 'straight' space on the signer's left. The clarification of that space allows for an important piece of information to be conveyed. Following the classifier is a noun construction showing that the space the 'person' has just entered is *a group straight (people)* or *the straight community*. The index produced within GAY;IX is maintained until the signer requires both his hands to sign GROUP. I posit that this is mere phonological perseveration[19]. Both the classifier construction and clarification of destination are topicalised. As the action of this individual's movement into a specific environment constitutes the topic, this is a beginning of a conditional construction. What follows is constructed action of *an* individual - which the viewer must infer is that individual within the topic, as well as within the topicalised environment. Consider the diagram below.

Figure 41c: Diagram of Spatial Frame and Constructions within



The topic of the construction is therefore an individual within the gay community that has entered into the straight community. The spatial frame is established initially (green). A condition containing a classifier construction (blue), introduces the subject and predicate simultaneously and also marks this event as the topic and a condition using non-manual features. The constructed action is the result of the condition being met. The constructed action in this case depicts a very casual, relaxed signing style with the shrugging of shoulders and resting of the head on the hand (refer to screenshots above).

[19] Phonological Perseveration is a type of speech error in which an earlier segment of speech replaces a later one (Carroll, 1986). Application of speech errors to signed language is best explained in Klima & Bellugi (1979).

The final construction that will be viewed is complex in that much larger constructions play individual roles within the larger construction. This construction does not use space, as the previous two have, but maintains a number of inter-related constructions using a conjunction, a rhetorical question, and topicalisation. Consider the example below and diagram that follows.

5.3. Example 3

_____t PRO.3-ALL GIRL CL:people nd;cl;poke INTEREST GAY _____rhet BUT TALK NAUGHTY WAY WHAT HOW LANGUAGE LIKE SEX DIFFERENT WAY HAVE

The construction above contains a number of constructions that have been discussed previously. Looking at the first noun construction, the signer uses various methods to introduce the noun.

_____t
PRO.3-ALL GIRL CL:people

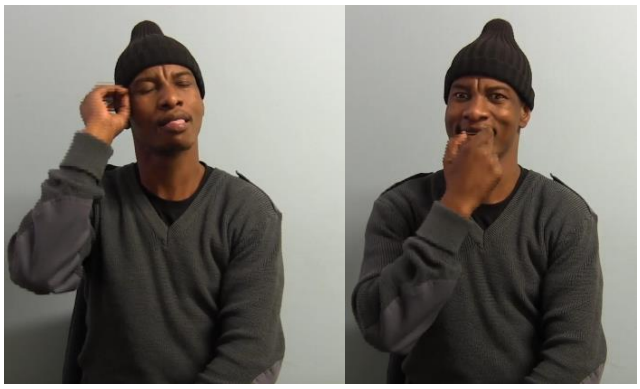
Figure 42a: Example 3 – Line 1

PRO.3-ALL **GIRL** **CL:people**

The sign glossed as PRO.3-ALL was observed earlier under noun constructions. A pointing sign takes on a sweeping movement modification to indicate plurality. Essentially this sign equates to an English *they*, but when produced in conjunction with GIRL and a classifier construction depicting a number of people, the noun construction is created. Our subject of a number of female individuals is also topicalised through widened eyes and raised eyebrows. The predicate follows in the two signs below.

nd;cl;poke
INTEREST **GAY**

Figure 42b: Example 3 – Line 2



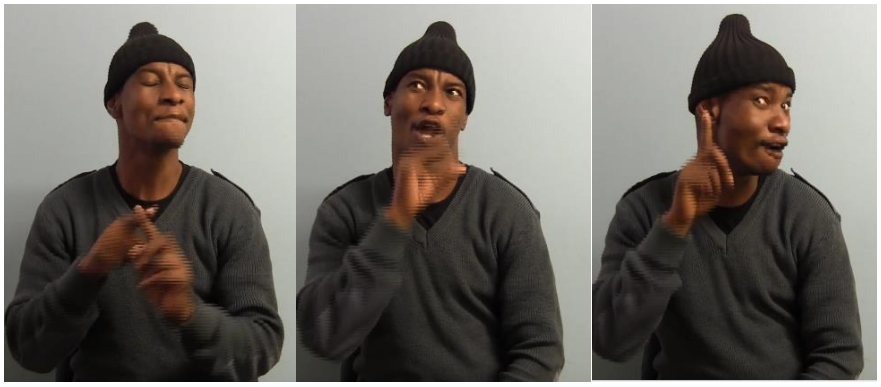
INTEREST **GAY**

The sign INTEREST does not maintain any obligatory non-manual features, although arguably, as is the case with *happy* or *sad*, we may expect to see raised eyebrows to depict interest in a non-linguistic way i.e. through facial expression. This sign, however, is being emphasised using the signer's NMF. A head nod, closing of the eyes (until the completion of the nod), and a protruding tongue emphasises the interest attributed to the subject. The sign GAY in this instance provides the object of the interest. As seen under noun constructions, certain seemingly adjectival signs may refer nominally to groups of people to which that adjective is attributable (in this case, the gay community). Thus far, we have a simple construction in which a noun construction acts as our subject, performing an action, and an object of that action. This construction is only the first unit within a larger compound construction.

rhet

BUT TALK NAUGHTY WAY WHAT HOW

Figure 42c: Example 3 – Line 3



BUT TALK NAUGHTY

WAY WHAT HOW

The sign BUT signals the compound construction (Blue in the diagram below) and another construction is anticipated. This second construction is complex in its own right and takes the form of a rhetorical question (Red in the diagram below). Some smaller constructions may require some clarification. Following the sign BUT, TALK and NAUGHTY are produced. After consulting with the informant regarding the meaning, he explained that although two separate signs, they represent a single concept. The informant then fingerspelled the English word *gossip*. The signer simply chose not to use the SASL sign *for* gossip, but rather combined two signs to create a similar meaning of *talking in a naughty way*.

The rhetorical question also takes on a form of multiple signs – of which the first two might be said to equate to the third. Following the proposed schema under rhetorical constructions, WAY and WHAT, as well as HOW, pose a question regarding the manner of the aforementioned 'gossip'. The

non-manual features associated with rhetorical questions (widening of the eyes and raised eyebrows) are present over NAUGHTY, WAY and WHAT. The rhetorical question to be answered then may be stated as *In what way was their talking naughty?* Or *How did they gossip?* The answer to this question, as per the structure of the rhetorical question, follows immediately.

LANGUAGE LIKE SEX

Figure 42d: Example 3 – Line 4

LANGUAGE LIKE SEX

The 'answer' construction consists of the subject (and a prepositional construction) as shown above; and a predicate construction shown below. The subject of this answer construction is LANGUAGE. The signs LIKE SEX may be considered a prepositional construction as they provide an example of the type of language that is being discussed. Anecdotally, this construction is uncommon in SASL and may stem from English influence. Nevertheless, this indicates that *language* as a whole is not under discussion but rather specific lexical items (such as the sign SEX). The predicate below relates directly to this type of language under discussion.

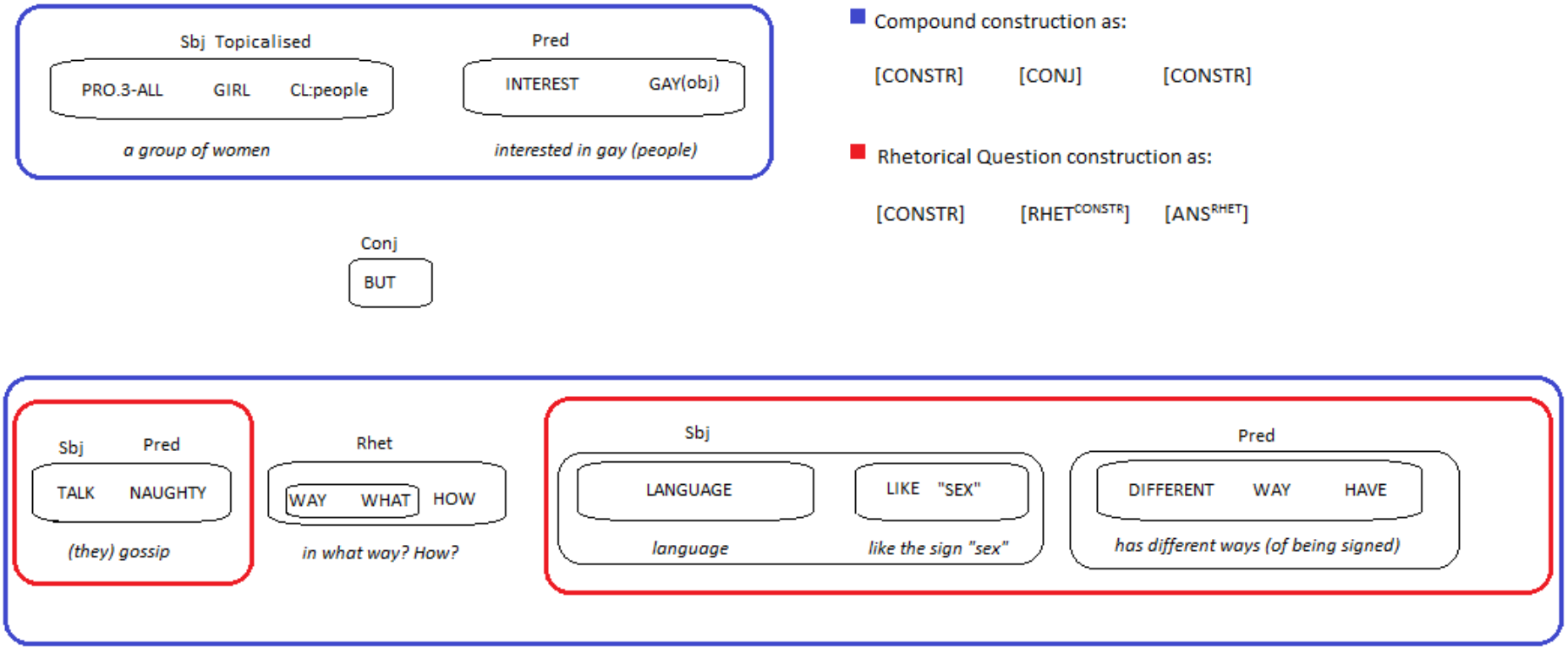
DIFFERENT WAY HAVE

Figure 42e: Example 3 – Line 5

DIFFERENT **WAY** **HAVE**

The predicate construction conveys that there are different ways in which the aforementioned language is used. It must be noted where this construction fits in within the larger overarching construction. First, it acts as the predicate of the subject LANGUAGE LIKE SEX. The entire construction including the subject forms part of the 'answer' construction in a larger rhetorical question construction. This rhetorical question construction is the second construction in the overarching compound construction. Semantically, this *difference* is the *difference in the way in which language (such as the word "sex") is used, discussed as gossip by women who are interested in the gay community.* This is illustrated in the diagram below. To put this idea in context, the signer goes on after this construction to discuss these different 'ways' – referring to the straight and gay communities and how the lexicon used within these communities differs when discussing sex. This may also explain the use of the sign HAVE as opposed to USE. As this large construction acts as an introductory construction to a larger narrative regarding language use in gay and straight communities, these communities are seen as *possessing* different methods of expressing information of a sexual nature.

Figure 42f: Example 3 – Diagram of Constructions and sub-constructions.



5.4. Summary

Considering the above constructions and their explanations, it is clear that without a surrounding context, an understanding of a signer's use of space, and a recognition of the common constructions within SASL, meaning derived from constructions is not possible. SASL is a language that, like other sign languages, uses space to convey meaning – whether it be establishing and referring back to referents, or showing the direction and manner of an action between referents. These spatial relationships, once established, can be maintained throughout a narrative. Abstract concepts that exist within a signer's mind can be mapped onto real space and manipulated, granting a viewer an understanding of what is being signed. These aspects are unique to signed language and require a framework of syntax which can accommodate them. I posit that Radical construction grammar, while congruent with mental spaces and conceptual blending theories, can accommodate these aspects of signed language. Although a non-reductionist approach requires decades of research to explain each of these aspects in detail, it is a worthy cause if a description of a language such as SASL can be explained in its own terms.

Chapter 6: Conclusions & Recommendations for Future Research

This study approached the manual language of South African Sign Language from a theoretical perspective of Croft's (2001) Radical Construction Grammar. To alleviate some of the problems faced in using traditional methods of syntax such as simultaneity, iconicity, and the heterogeneous nature of SASL, a new viewpoint was needed. Without disregarding previous research into sign languages, as well as ideas and terminology of a traditional understanding of linguistics, SASL was described in terms of *constructions*. By following Croft (2001) in rejecting syntactic relations, explanations gave way to semantic interpretations based on peculiarities of the modality such as use of space, iconicity, classifier constructions, and constructed action.

Within noun constructions, it was observed that reference to assigned spaces play a major role in determining referents. Some referents, however, do not require this spatial association and may take on reference through simple lexical items. While indexical signs may refer to the immediate environment or pronouns, they are also used to refer to spaces in which referents have been placed. Adjectival information appears to be flexible in terms of sign order, but within more complex constructions, may be found in specific spaces associated with referents in order to be attributed to them. It was also observed that pluralisation can occur in many ways such as reduplication, a number/quantifying lexical item, or through modification of a parameter such as movement.

Predicate constructions were observed as signs that would seemingly be adjectival, nominal, or verbal. As SASL lacks the copula, simple constructions may take on various different parts of speech as a predicate. Padden's (1983) classification of verbs is maintained within RCG but explained in terms of the construction's form and how it relates to meaning as a predicate construction, rather than ascribing *transitivity* or *agreement*. The semantic information remains the same, but the use of space is emphasised to convey that semantic meaning. As predicates may rely on special referents, they are necessarily construction specific.

In more complex constructions, the tendency to *establish* referents first, and *comment* after was observed. In discussions of compound and complex constructions, we saw that SASL uses both topicalised constructions and the rhetorical question construction to achieve many ends. Although

not obligatory, temporal information can be portrayed in both these common constructions; as opposed to the simple schema in which it appears before the main construction. Conditional information, too, was seen to be conveyed through the above two common constructions. Schemas were posited for both topicalised and rhetorical question constructions.

Classifier constructions and constructed action were addressed briefly, emphasising relationships between semantic, iconic, spatial, conceptual, and contextual aspects of the constructions. Classifier constructions are exceptionally complex, and provided all symbolic elements of classifier constructions can be defined, a schema may be possible. This, however, would require further research, including perspectives from fields of cognition, in order to determine meaning. Classifiers must be viewed holistically and within context. Constructed action acts as a discourse frame in which constructions can occur. Although RCG takes into account these discourse and contextual elements when viewing a construction, defining these elements is difficult and further work on discourse & pragmatics within SASL is necessary.

When viewing complex constructions holistically, spatial mapping and conceptual blending theories were imperative to understanding constructions within larger sections of the narrative. Reference to spaces assigned as well as action within and between those mental spaces creates a real space mapping of a signer's mental image for the viewer. Within this spatial mapping, common constructions as posited beforehand are observed on a more complex level, in which several constructions equate to a single idea – whether establishing a referent, ascribing a property or state, or creating action or events within and between these spaces. Even in the case presented in 5.3, in which no mapping onto space was used, complex constructions were observable in conveying fine detail within a larger frame of defined construction schemas. Knowledge of *how* rather than *where* these constructions occur is the best means of identifying them. Contextual information plays a key role and RCG can accommodate this information when viewing complex constructions within SASL by providing explanations of the semantic and conceptual links between signs and their meanings within context. By viewing any signed construction as a form-meaning pairing, in which an element's form can be described, a component's meaning can be derived, and the unit's symbolic link between the two is evident, RCG can accurately describe signed language.

Further research and documentation of SASL would benefit from a Radical Construction Grammar framework. While other signed languages may boast a large corpus of research, SASL is lacking in linguistic descriptions of even the most basic phonological units. As stated, this study is only a preliminary investigation. For each instance discussed within this dissertation, research is required. A comprehensive description of SASL under RCG will only be possible if research aimed at its *form*, its *meaning* and the *links* between them occur.

Although much research exists globally regarding signed languages parameters and the morphology that surrounds them through modification, this has not yet been investigated for SASL. Studies into how SASL differs from other sign languages in this regard would benefit the understanding of the language tremendously. Typical classifier handshapes, modifications of movement, and a comprehensive description of non-manual features would be of utmost importance when attempting to understand SASL's form.

Where meaning is concerned, a multi-level approach must be adopted. Studies into iconicity may shed some light on how SASL conveys meaning in single lexical items/signs – in which RCG allows for classifiers to fall under. Iconicity is a spectrum rather than a dichotomy, and visual motivation of signs must be explicable in terms RCG can accommodate. Although much literature exists on this topic internationally, application to SASL within an RCG framework is needed in order to fully describe visually motivated constructions. Meaning achieved beyond the lexical, and indeed, the 'sentence' level, may be explained in future research by application of Conceptual Blending theory and Spatial Mapping. Descriptions of common constructions and schemas on a discourse level may be as equally important as its form to understanding even the simplest of signs. An index or classifier construction within a specific space may only be comprehensible within a larger discourse frame in which that space holds meaning and has been maintained throughout.

For those topics not discussed in detail due to lack of instances within the data, further studies must ensure elicitation techniques exist to target areas seldom expressed in specific tasks. These include instances of negation, questions and indeed, classifier constructions and constructed action - as these are highly context-dependant.

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APPENDIX A

Participant Information Sheet

Donovan Wright 388555

Department of South African Sign Language and Linguistics.

Note: This document serves to inform potential participants of the study to which they have been invited. All information contained in this document will be signed by a certified SASL interpreter to ensure clarity and understanding of the following information.

Good day.

My Name is Donovan Wright. I am a Masters Student of South African Sign Language at the University of the Witwatersrand. I am conducting a study on the syntax of SASL.

Purpose of the study:

The purpose of this study is to accurately describe the syntactic features of South African Sign Language (SASL).

Who will participate?

A Deaf adult (ages 20 and above) who identifies with being Deaf, both linguistically and culturally was invited to participate.

Procedure:

Participation in this study is completely voluntary. If you choose to be a part of my investigation, you will be asked to recount a personal experience from your life experience that is not emotionally laden, and that you are happy to share with the researcher (bearing in mind that excerpts may appear in the final document and related research outputs). If necessary, post-task interviews may take place for clarification and reflection on the tasks. Both the tasks and post-task interviews will be filmed.

What are the possible benefits of taking part?

While there may be no personal benefits to your participation, outcomes of the investigation can contribute to a better understanding and development of SASL as a language.

Confidentiality:

Only the researcher will have access to any personal information given by the participant. Any information that is deemed relevant to the research may be required. Permission will be requested for any information existing outside of the primary data to be used.

Any personal information presented in the narrative portion of the task, however, serves as primary data and excerpts may be used in academic presentations or publications.

Due to the nature of filmed data, and the necessity of the participant's face within the signing data, anonymity is not possible. The participant's face may be shown in academic presentations and/or documents. If the participant is not entirely comfortable with their image being shown, they should not agree to participate in the study.

Results:

The results of this study will contribute to my Masters dissertation. They will be used for academic research purposes. If you are interested in the outcome of the investigation, results will be provided on request.

Should you have any questions, please feel free to contact:

Myself
Donovan Wright
Donovan.f.wright@gmail.com
0728853928

Supervisors
Dr Ruth Morgan
Ruth.Morgan@wits.ac.za

Dr Andrew Van der Spuy
Andrew.vanderspuy@wits.ac.za

Thank you for your time.

Sincerely,

Donovan Wright

Department of South African Sign Language and Linguistics.

APPENDIX B

Consent Form

Donovan Wright 388555

Department of South African Sign Language and Linguistics.

Consent Form

Note: All statements made in this document will also be signed in SASL by the participant to ensure the participant is fully informed and understand what they have agreed to. This will be filmed and serve as the primary verbal consent.

I _____(full name) have been signed and understand the information in the participant information sheet. Any questions I have regarding the research have been answered. I understand that there will be no personal benefit from participating in this study and that I may withdraw at any time prior to the collection of the data. I certify that my participation in this research is entirely voluntary.

Participant's Signature Date:

_____ _____

APPENDIX C

Donovan Wright 388555

Department of South African Sign Language and Linguistics.

Video consent Form

Note: All statements made in this document will also be signed in SASL by the participant to ensure the participant is fully informed and understand what they have agreed to. This will be filmed and serve as the primary verbal consent.

I _____ (full name) hereby consent to the collection and use of my personal image by video recording.

I acknowledge that my image may be used in academic seminars, conferences and publications relating to the study, which will reveal my identity.

I understand that only with my permission may personal information, outside of that which is presented as data, be used in any presentations or publications.

Participant's Signature Date:

_____ _____

APPENDIX D

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Wright

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: H15/04/03**
PROJECT TITLE	A preliminary description of South African Sign Language Syntax
INVESTIGATOR(S)	Mr D Wright
SCHOOL/DEPARTMENT	Language, Literature and Media/
DATE CONSIDERED	17 April 2015
DECISION OF THE COMMITTEE	Approved
EXPIRY DATE	20 April 2017

DATE 21 April 2015 **CHAIRPERSON** (Professor J Knight)

cc: Supervisor : Dr R Morgan

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University. Unreported changes to the application may invalidate the clearance given by the HREC (Non-Medical)

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to completion of a yearly progress report.**

_____ Signature

_____/_____/_____ Date

APPENDIX E

English Gloss

Please note that the English gloss of the data transcribed was done so while keeping semantic context in mind. This gloss was taken directly from the GLOSS tier in the ELAN file. Non-manual features were annotated in separate tiers and are not visible here. Should anyone be interested in the more complete data, please do not hesitate to contact me at Donovan.Wright@wits.ac.za.

HELLO

HOW-ARE-YOU

PRO.1

NAME

J-O-H-N

M-E-L-E-T-S-E

SIGN-NAME

POSS.1

JOHN

PRO.1

BORN

DEAF

HOME

WHERE

S-O-W-E-T

LIVE

IX

MOTHER

FATHER

IX

DON'T-KNOW

IX

DEAF

CA - baby

CA - reaction

IX

IX

DEAF

MOVE

WHERE

B-A-R-A

HOSPITAL

TRY

AUDIOLOGICAL TESTING

CA-hearing test

CATCH

IX

DEAF

PERFECT

DOCTOR

INFORM

IX

MOTHER-FATHER / PARENTS

IX

DEAF

SHOULD

SCHOOL

NORTH-WEST

IX

GOOD

AGE

SIX

MOVE

IX

DEAF

SOCIALISATION

PRO-1

CRY ++

WHY

SIGN-LANGUAGE

IX

LIKE

MONKEY

BUT

NO

SIGN-LANGUAGE

IX

PRO.1

TRY

LEARN++

BUT

IX

TEACHER

TEACH

WHAT

TOTAL-COMMUNICATION

CA - Oral "ba. ba. ba"

DEAF

CL:children sitting

LEARN

SIGN-LANGUAGE

POSS.3

BASIC

TEACH++

PRO.1

IMPROVE

MOVE

IX

SCHOOL

HOME

IX

SCHOOL

CLOSE

MOVE

HOME

CL: person-move

HOME

IX

SOCIALISATION

COMMUNICATION

CANT

PRO.1

DEPRESSED

CA - twiddling thumbs

OPEN

SCHOOL

GO-BACK

IX

CA- Happy

DEAF

COMMUNICATE

SIGN

IX

LIKE

FAMILY

DEAF

IX

ALL

WHY

COMMUNICATION

UNDERSTAND

FULL

WHY

TIME-PASS

GO-BACK

SCHOOL

HOME

SAME++

HOW

FEEL-CONFLICTED++

GO-BACK

FEEL-HAPPY

!SIGNING!

!COMMUNICATING!++

!SIGNING!

IX

GREAT

PRO.1

UNDERSTAND

FULL

BUT

IX-ALL

PRIDE

DEAF

POSS.3

SIGN-LANGUAGE

GREAT

IX

MYSELF

JOHN

PRIDE

FAMILY

NO

DEPRESSED

COMMUNICATION

NOTHING

GO-BACK

IX

DEAF

PRIDE

FULL

COMMUNICATION

IX

UNDERSTAND

FULL

FUTURE

NO

IX

LIKE

NEGATIVE

PRO.1

EXPERIENCE

MYSELF

PRO.1

GAY

NO

PRO.1

DON'T-KNOW

MYSELF

IX

IDENTIFY

PRO.1

CA - Signing feminine

IX

GAY

TIME-PASS

GO-BACK

IX

HOME

PRO.1

IX

IX

HEARING

PEOPLE

IX

GAY

PRO.1

GET

GOOD

BUT

PRO.1

ACCEPT

GO-BACK

SCHOOL

STILL

PRO.3 - ALL

IX

MANY

DEAF

IX

NEGATIVITY

IX

GAY

PERFECT

PRO.1

DON'T-KNOW

TIME-PASS++

PRO.1

NOW

TWO-THOUSAND-AND-ONE

PRO.1

PRIDE

MYSELF

GAY

PRO.1

ACCEPT

BUT

LANGUAGE

LANGUAGE

IX

STRAIGHT

LANGUAGE

IX

LANGUAGE

GAY

DIFFERENT

SIGN-LANGAUGE

IX

GAY

SIGN-LANGAUGE

CA - SIgning feminine "DO WHAT"

OVER-HERE

IX

STRAIGHT

SIGN-LANGUAGE

CA - strong signing: "HOW GO DO WHAT"

CA - strong signing: "STRONG WAIT”

IX

GAY

CA - Feminine signing: "WANT"

PRO.1

INTERESTING

COMPARE

IX

CLEAR

PRO.1

FEELING-CHANGE

IX

FULL

IX

GAY

SIGNING

BEAUTIFUL

IX

SIGN-LANGUAGE

STRAIGHT

BEAUTIFUL

YES

BUT

IX

MORE

WOMAN

SOCIALISE

INTERESTING

GAY

DIFFERENT

WAY++

WHAT

IX

GAY

POSS.3

WAY

LANGUAGE

SAME

BEHAVIOUR

IX

SOCIALISE

WITH

WOMAN

CA - feminine signing

ANYWAY IX

STRAIGHT

GAY; IX

MOVE

IX

GROUP

STRAIGHT

IX

CA - Lazy signing

DIFFERENT

WAY++

IX

ACCEPT

IX

ACCEPT

BOTH

PRO.1

FEEL-CONFLICTED

OVER-HERE

IX

STRAIGHT

INFLUENCE

PRO.1

ACCEPT

GOOD

PRO.1

UNDERSTAND

FULL

PRO.3 -ALL

GIRL

AREA

INTERESTING

GAY

BUT

TALK

NAUGHTY

WAY

WHAT

HOW

SPOKEN

LANGUAGE

SEX

DIFFERENT

WAY

HAVE