Framing of Constructed Action in Elicited Narratives and Conversational Narratives in Norwegian Sign Language

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ENGLISH VERSION

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SUMMARY

ENGLISH VERSION

This master's thesis in linguistics studies how the discourse strategy of **constructed action** (CA) is framed in Norwegian Sign Language, based on whether the referent of the CA is in a context of co-reference or switch reference. Through CA, signers may enact the actions, thoughts and utterances of narrative referents (Metzger, 1995, p. 266). The framing of CA relates to whether the referent of the CA was explicitly identified by either a noun phrase or a pronominal point in the same clause ('framed'), or whether no such explicit identification of the referent occurred ('unframed').

Co-reference was considered in the sense of local co-reference, i.e. whether or not the referent was mentioned in the previous clause. If the referent of the CA was not mentioned in the previous clause, there is a switch in reference. The study used two types of data material, elicited narratives and CA occurring naturally in conversations between signers. The study hypothesized that framing of CA would occur more frequently in switch reference than in co-reference, in accordance with earlier work by Cormier, Smith & Zwets (2013) on framing of CA in British Sign Language. In this study, the hypothesis was studied by annotating and examining annotations in the Norwegian SL corpus, with results presented descriptively as arithmetic means. The study aims at giving a descriptive overview of the topic, as the first study of the framing of CA in Norwegian Sign Language.

Not framing CA was found to be the most common strategy overall, as well as the most frequent strategy found in co-reference in both narrative types. Framing occurred more often in switch reference than in co-reference, thus supporting the hypothesis. Yet, unframed CA occurred more frequently than framing in switch reference in the elicited narratives. For the CA occurring in the conversations, framing was more frequent than unframed CA in switch reference. The thesis discusses factors which might help explain the differences in results between the two narrative types, from the referential aspects of CA as an iconic construction to factors related to overt reference in general. The thesis also discusses how the results from the conversational data may be affected by other language functions that CA may be used to express, i.e. CA used as an agent defocusing construction.

NORSK VERSJON (NORWEGIAN VERSION)

Denne masteroppgaven i lingvistikk utforsker hvordan diskursstrategien **konstruert handling** (KH) er innrammet i norsk tegnspråk, avhengig av om referenten til KH er i en kontekst av koreferanse eller om referansen er endret ('switch reference'). Gjennom KH kan tegnspråklige spille ut handlingene, tankene og ytringene til narrative referenter (Metzger, 1995, p. 266). Innramming av KH omhandler hvorvidt referenten til KH ble eksplisitt identifisert ved hjelp av enten en nomenfrase eller et pronominelt pek i samme setning (innrammet, engelsk 'framed'), eller om det ikke forekommer slik eksplisitt identifikasjon (ikke innrammet, engelsk 'unframed').

Koreferanse er i denne oppgaven forstått som lokal koreferanse, det vil si hvorvidt referenten var nevnt i forrige setning. Hvis referenten til KH ikke ble nevnt i forrige setning, har det skjedd en endring i referanse. Studien har brukt to typer datamateriale, elisiterte narrativer og KH som forekommer naturlig i samtaler mellom tegnspråklige. Studien hadde som hypotese at innramming av KH ville forekomme hyppigere når referansen er endret, enn når referansen er uendret ('koreferanse'), i samsvar med tidligere arbeid av Cormier, Smith & Zwets (2013) om innramming av KH i britisk tegnspråk. I denne studien ble hypotesen utforsket ved å annotere og granske annoteringer i korpuset for norsk tegnspråk, med resultater presentert deskriptivt som aritmetisk gjennomsnitt. Studien har som mål å gi et deskriptivt overblikk over emnet, som den første studien vedrørende innramming av KH i norsk tegnspråk.

Å ikke innramme KH viste seg å være den mest vanlige strategien generelt, samt den mest hyppige strategien i koreferanse i begge typer narrativer. Innramming forekom oftere når referansen var endret enn i koreferanse, funn som dermed støtter hypotesen. KH som ikke var innrammet forekom hyppigere enn innrammet KH når referansen var endret i de elisterte narrativene. Når det gjelder KH i samtalene, forekom innrammet KH mer hyppig enn ikke innrammet KH når referansen var endret. Oppgaven utforsker videre faktorer som antakelig kan forklare forskjellen i resultater mellom de to typene narrativer, fra referensielle aspekter ved KH som en ikonisk konstruksjon, til faktorer relatert til eksplisitt referanse generelt. Oppgaven diskuterer også hvorvidt resultatene fra samtalene kan være påvirket av andre språkfunskjoner som KH kan uttrykke, det vil si KH brukt som en konstruksjon for å defokusere agens.

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1 INTRODUCTION

1.1 TOPIC OF THE THESIS

This master's thesis will focus on the reference and discourse strategy in Norwegian Sign Language known as *constructed action* (CA). During CA, signers map a narrative referent onto their body, and through this physical overlap they may enact a referent's actions, thoughts or utterances (Metzger, 1995, p. 266). This thesis will study how constructed action is framed in Norwegian SL[1] in relation to switch reference. Framing refers to how the referent of the CA is identified, and whether it is explicitly (overtly) identified by for example a noun phrase in the same clause, or whether signers enact without explicitly identifying the referent within the clause that contains CA. If it is explicitly identified, it is framed, and if it is not, it is unframed. An example of a clause with framed CA is presented in figure 1 below, while a clause with unframed CA is presented in figure 2 below.

Figure 1: Example of a clause with framed CA. (Ferrara & Bø, 2015 (collection date)): NTSFrog_P-TKOKO4.eaf. BT: 00:00:47.880, ET: 00:00:49.001)

[1] 'Sign language' will be shortened to SL, and 'Norwegian Sign Language' will be shortened to Norwegian SL, due to a lack of consensus on an abbreviation in the Norwegian signing community . 'Spoken language' is shortened to SpL.

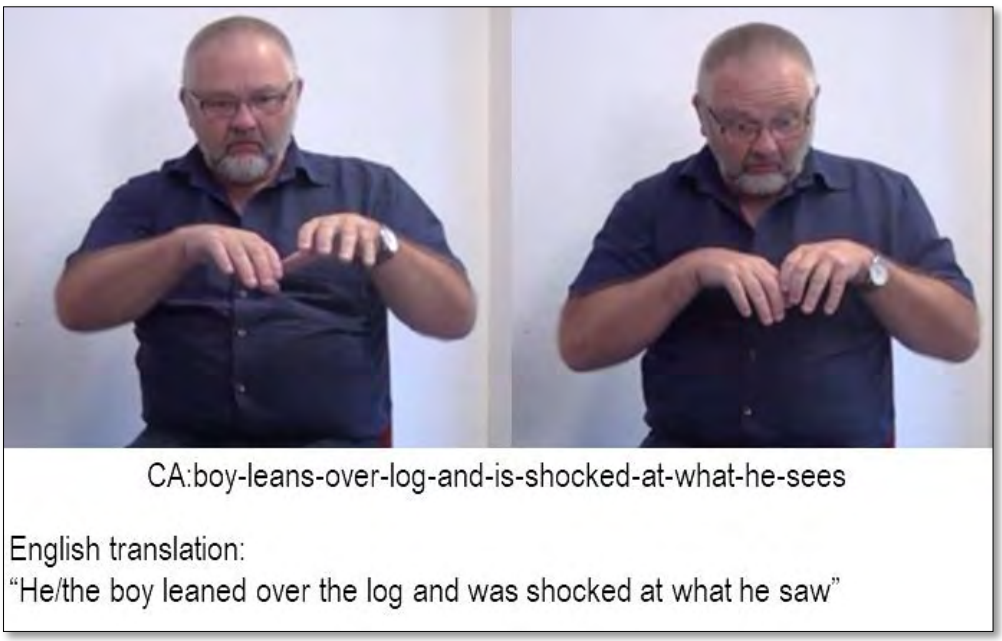

Figure 2: Example of a clause with unframed CA. (Ferrara & Bø, 2015 (collection date)): NTSFrog_P-TKOKO4-eaf. BT: 00:01:36.493, ET: 00:01:37.268)

Specifically, this study will look at whether or not the referent of the CA is framed, across contexts where the referent of the CA is in switch-reference or co-reference with a referent in the previous clause. Based on previous research on other SLs, as further described in section 5.2.2, framing is thought to be more likely when there has been a change in referent, and not framing is thought to be more likely when the referent of CA was mentioned in the previous clause. In addition, CA is a highly iconic aspect of sign language, which may cause less framing with referential devices such as noun phrases, if the referent of the CA is understood through context and/or due to iconic representation of the referent.

The analysis will be done using narrative data from the Norwegian SL corpus, using both elicited narratives based on the picture book "Frog, Where Are You?" (Mayer, 1969) often called "The Frog Story" and narratives from conversations between signers of Norwegian SL. The data from the conversations include personal experience narratives, as well as other spontaneously occurring narrative sequences such as the retelling of the experiences of others. As the narrative sequences in the conversations are not all of personal experiences, the conversational content contributed by signers will henceforth be referred to as conversational narratives.

Reference with constructed action has seen little attention in Norwegian SL (but see upcoming: Ferrara, Anible, Hodge, Jantunen, Leeson, Mesch and Nilsson (accepted)), and no studies have previously been done on the framing of constructed action in Norwegian SL.

Other works on reference with CA in SLs have mainly used elicited narratives. For example: Cormier, Smith and Zwets (2013b) on the framing of constructed action in BSL (British Sign Language), Frederiksen and Mayberry (2016) on the reference hierarchy in ASL (American Sign Language) and Hodge, Ferrara and Anible (2019) on referencing strategies in Auslan (Australian Sign Language). This is the first study on the framing of constructed action in a SL which also uses corpus data from conversations.

Before starting this master's degree in linguistics, I was especially interested in the iconic aspects of SLs. I have been particularly interested in how iconic content is fused with, and largely inseparable from, the more arbitrary parts of grammatical expression. Constructed action has always been an area of interest as CA is highly iconic, and I was curious to see how CA as a discourse strategy interacted with other aspects of grammar and the discourse context as a whole. Trying to narrow down the study of CA in Norwegian SL, I found the article of Cormier et al. (2013b), who had studied the framing of CA in British Sign Language (BSL). I was inspired by their work to create a similar study on the framing of CA in Norwegian SL. Hence, my hypothesis takes inspiration from Cormier et al. (2013b), and one of the hypotheses created for their study, as described below.

1.2 HYPOTHESIS

The hypothesis presented by Cormier et al. (2013b, p. 124) for British Sign Language (BSL) is as follows:

> "Overt subject presence will be preferred in switch reference contexts but subject omission will be preferred in contexts of co-reference with a previous clause -- that is, constructed action will pattern like lexical verbs in spoken and signed languages and like quotations with or without quotative verbs."

Cormier et al. (2013b) found support for their hypothesis, and concluded that when CA occurred in a context of switch reference, reference with a noun phrase was preferred. In contexts of co-reference, not identifying the referent of the CA with a noun phrase was preferred. The Cormier et al. (2013b) hypothesis has been used as a baseline in the formulation of my own hypothesis:

> Framing constructed action through the use of a noun phrase or pronominal point will occur more frequently in contexts of switch reference. In contexts of co-reference between the referent of the CA and a referent in the previous clause, explicitly framing the constructed action with a noun phrase or pronominal point will occur less frequently.

As readers may note, there has been some change in wording from the original hypothesis of Cormier et al. (2013b) to my own hypothesis. The changes relate to three points:

1. The use of the terms 'subject', and 'subject presence'. Cormier et al. (2013b) use the term 'subject' in the sense of arguments in the macrorole of 'actor', as defined in Role and Reference Grammar (Van Valin & LaPolla, 1997), i.e. The most agentive participant in a clause. 'Subject presence' is when this actor is explicitly identified, what this thesis would call framed. The Norwegian SL corpus has not been tagged for grammatical functions such as subject, regardless of definition, and thus there is no straightforward way to identify subject referents in the corpus. All referents of CA are therefore included in this study, regardless of macrorole. If the Norwegian SL data was tagged for macroroles, it would be a theoretical possibility to only look at referents of CA in the role of actor. Yet, this would exclude referents of CA that are not actors, which may obscure the variety of the referents of CA and the functions that CA may be used to express. Including all referents of CA is thus not only a virtue of necessity, but also enables a more holistic view on CA as used in Norwegian SL. Further discussion on the topic of subjects, actors, and the choice of which referents of CA should be included in this study, is found in section 4.5: *"Subject" presence.*

2. Explicating overt framing as the use of noun phrases *and* pronominal points. This change of hypothesis follows naturally from the exclusion of the term 'subject'. The categories that constitute overt framing of CA include nouns, as well as pointing actions to denote referents. Pronominal points are points that are thought to function similarly to pronouns (Johnston, 2019a), but may not be sufficiently functionally equivalent to noun phrases, and therefore noun phrases (NPs) are distinguished from pronominal points (PPs) in this thesis. Further information on the pointing actions in SLs are found in section 2.3, and the definitions of nouns and pronominal points are further explicated in section 6.3.2 and 6.3.3.

3. The change of the term 'preference' to the term 'frequency'. This change is due the expectation of more advanced statistical analysis that may arise from the use of the term

'preference'. This thesis gives a descriptive overview of the framing of CA in Norwegian SL, not an advanced statistical analysis, and the term preference has therefore been avoided.

In sum, framing of CA is hypothesized to occur more frequently in switch reference than in co-reference. The hypothesis comes with certain expectations based on previous research on constructed action (Cormier et al., 2013b), and research on general reference strategies in SLs (Hodge et al., 2019). CA has been found to be a discourse strategy that is mainly used in contexts of co-reference, also called maintenance (Hodge et al., 2019), and it is therefore expected that much of the CA will be co-referential. Due to the hypothesis that framing of CA will occur less frequently in contexts of co-reference, there is consequently an expectation that a large part of the CA in the data will be unframed.

In addition, there is an expectation that the CA found in switch reference will have a higher frequency of framed CA than unframed CA, aligning with the findings of Cormier et al. (2013b) on the framing of CA in BSL narratives. Another expectation based on previous research is that when framing of CA is found, this framing is likely to be a bare noun, i.e. a noun which is morphologically unmodified, and without an accompanying verb of saying (Cormier et al., 2013b; Emmorey, 2002; Reilly, 2000). Furthermore, there is an expectation that pronominal points will be used only rarely as a framing strategy of CA in the elicited narratives, due to the low number of pointing actions to denote animate referents found in previous research on CA, and in research on referencing strategies in other SLs by the use of narrative material (Cormier et al., 2013b; Frederiksen & Mayberry, 2016; Hodge et al., 2019). It is further considered likely that the conversational narratives will pattern differently regarding framing categories than the elicited narratives, due to possible differences in genre and the types of narrative referents.

The last part of the Cormier et al. (2013b) hypothesis, that "constructed action will pattern like lexical verbs in spoken and signed languages and like quotations with or without quotative verbs." (Cormier et al., 2013b, p. 124) has not been made a part of the hypothesis for framing of CA in Norwegian SL. Still, this part of the Cormier et al. (2013b) hypothesis carries some expectations for framing of CA that are relevant for this thesis. Due to a higher frequency of overt reference in switch reference vs. co-reference being a known cross-linguistic factor since the work of Givón (1983b), this thesis carries the cross-linguistic (and cross-modality) expectation that some of the main patterns of the use of overt reference and

framing with quotations that have been found for SpLs, particularly in the domain of switch reference vs. co-reference, are likely to be found in the framing of CA in Norwegian SL.

1.3 THEORETICAL BASIS

The thesis is based on general functional, cognitive, and usage-based theoretical linguistic frameworks. In classical linguistics, conventionalized symbols with a stable connection between form and meaning have been deemed linguistic within a language community. The symbolic behaviors that are not conventionalized or entrenched have been deemed non-linguistic and therefore outside the scope of linguistics. These non-linguistic behaviors will be referred to as gestures in this thesis, aligning with work by Ferrara and Johnston (2014).

The traditionally strict divide has led to gestures being labeled as outside the boundaries of language. Disregarding the gestural modality has been common in SpL research, but separating linguistic behaviors from gestural behaviors in SLs has been less feasible (Woll, 2013, p. 4). The field of multimodality research has since grown, along with a growing body of research on both signed and spoken languages, by researchers who believe that the boundaries of what is considered linguistic is too narrow, and that researchers should admit more gestural aspects of human communication into the analysis of all languages, whether signed or spoken (See e.g. Enfield, 2009; Johnston, 2019a; Kendon, 2014; Liddell, 2003; Sidnell, 2006).

In the same vein, there has been an emerging interest on *languaging* in both signed and spoken language research since the 2000s. Central to the idea of languaging is the thought that all human languages, signed and spoken, are inherently multi-modal in face-to-face interaction, and made up of different semiotic behaviors to identify referents and construct meaning in discourse (Kendon, 2014, p. 1). These behaviors may be more or less conventionalized within language communities. Semiotic resources can be defined as "… the actions, materials and artifacts we use for communicative purposes." (Van Leeuwen, 2004, p. 285). More specifically, signers and speakers use their bodies, voices, and the physical environment to co-construct meaning in face-to-face interactions (Hodge et al., 2019, p. 35).

Clark and Gerrig (1990, p. 765) propose that we use these resources in order to *describe*, *indicate* and *demonstrate.* (*Demonstration* has later been called *depiction*; (Clark, 2016, p. 324)). These strategies could also be called *telling*, *pointing* and *showing* (Ferrara & Halvorsen, 2017, p. 4). Descriptions are made up of the conventionalized parts of lexis and

grammar, while indication is the pointing we do both physically and through deictic words to designate things in the world. Depictions are typically iconic representations of objects (Clark & Gerrig, 1990, p. 765; Dingemanse, 2015, pp. 950-951). These representations resemble the depicted object in form and meaning, and they work by "enabling others to experience what it is like to perceive the things depicted." (Clark & Gerrig, 1990, p. 765). Constructed action can be subsumed under the communicative strategy of depiction, as well as including the strategy of indication, for example by the use of eye-gaze.

In a semiotic approach, the divide between linguistic and non-linguistic is not regarded as a hard divide, and the question of where to draw the line regarding what is considered linguistic is not the focus. Rather, the categories of linguistic and non-linguistic are deemed to be on a continuum of more or less entrenched, conventionalized and grammaticalized symbolic behaviors. In the words of Kendon (2014):

> "Extracting just those aspects that can admit of phonological or morpho-syntactic analysis in the structural tradition remains central in the linguistics of both spoken and signed languages. However, this system must be seen as only part of the story. A more comprehensive understanding of how utterers achieve meaningful utterances will require that we incorporate in a systematic way these other systems that do not admit of a formal-linguistics analysis." (Kendon, 2014, p. 3)

The semiotic approach, and other aspects of functional, cognitive and usage-based linguistics are thereby the foundation of this thesis, which studies an aspect of SLs that has traditionally been considered non-linguistic, but is clearly integrated in the grammatical systems of SLs: Constructed action. This study of framing of CA in Norwegian SL is built up of eight different sections, including the section of introduction. Before the method, findings and discussion of this thesis in sections 6, 7 and 8, various sections of background will be presented. Section 2 is comprised of general information about sign languages, including information about sign types, and information about Norwegian SL more specifically. Section 3 presents the topic of constructed action, including how CA is identified, and different ways CA may be expressed.

Section 4 gives a closer look at general theory on reference and switch reference, with a focus on the works of Chafe (1976), Givón (1983a, 1983b) and Ariel (1991). The section also

presents how reference is operationalized in this study, as well as giving further clarification of how the concept of subject presence is handled in this thesis. Section 5 presents previous research on referencing strategies found in SLs, as well as SpLs whenever relevant. Section 5 further describes previous research on the framing of CA in SLs and the aligning topic of framing quotations in SpLs. Before entering section 2, the glossing conventions used for the picture examples in this thesis will be explicated in section 1.4 below.

1.4 GLOSSING CONVENTIONS

Norwegian SL examples are glossed with capital letters, e.g. DOG. The glosses in this thesis are based on the glosses made for the Norwegian SL corpus, as found in Signbank[2]. Any translation into written English, or any examples from SpLs, are written with apostrophes. In other words, the English word is written as "say" , while the sign in Norwegian SL with the equivalent meaning is glossed as SAY. Signs in Norwegian SL that cannot be glossed with a single word in written English, are glossed with hyphens, e.g. SIGNED-LANGUAGE. It should be strictly noted that glosses are simply labels. They are meant to represent the SL signs in a majority written language in a way that enables people who do not know the particular SL to understand the examples.

Signing that is non-lexical, such as constructed action or gestures, or partly lexical such as depicting signs, are appended with glosses that represent the whole category (see section 2.3 on sign types for definitions of the terms). I.e. CA for constructed action, DS for depicting sign or G for gesture. Any further information about the meaning of the CA, DS or G may be added after a colon. If the description requires more than one written word, the words are hyphenated. E.g. CA:boy-looks-down-at-frogs. The use of < > is used in this thesis to show the start and end-point of a stretch of CA, whenever it is necessary to delineate stretches of CA from other signing.

Points are glossed as PT, with the function of the point glossed after a colon. Such as PT:PRO for pointing with pronominal function, further appended with number, and (pl) added for plural, e.g. PT:PRO1(pl) signifies a point that functions as first person plural, i.e. "we". PT:DET is a point which functions as a determiner. More information on pronominal pointing is found in section 6.3.3. Any translations of the Norwegian SL examples to written English

[2] Norwegian Sign Language Signbank: Ferrara, L. (2021). Norwegian Signbank. In *Global Signbank* (2020 ed.): In Crasborn, Onno, Bank, Richard, Stoop, Wessel, Komen, Erwin, Hulsbosch, Micha, & Even, Susan (eds).

are my own free translations, and are meant to make the examples available to readers who do not understand Norwegian SL. The translations are based on the context of the utterances, and any example may have several possible translations. The translation that seemed the closest to the context of the utterance was chosen.

2 SIGN LANGUAGE

2.1 A BRIEF HISTORY OF SIGN LANGUAGE LINGUISTICS

Modern sign language research can be said to have started with Stokoe (1960), who first described a sign language (American Sign Language, ASL) using the structural linguistic method common at the time, and found the signing of the American deaf[3] to display structure on par with SpLs. At the time of Stokoe (1960), SLs were perceived of as a collection of pantomimic gestures, devoid of linguistic structure (Kendon, 2014, p. 2). Klima and Bellugi's (1979) "Signs of Language" was an influential work in establishing ASL as a language independent of, and equal to, SpLs. This was further emphasized by SpL linguist Hockett (1978), who posited that ASL was: "...as much like a spoken language as it possibly could be, given the difference of channel." (Hockett, 1978, p. 273). Hockett was the linguist who proposed the design features of human languages (Hockett, 1960), and as such his words were of great importance in establishing SLs as natural human languages. Sign language linguistics was for a long time subject to traditional notions of what was deemed linguistic, and much early research on SLs from the 60s to through the 1980s was focused on the parts of SLs that could be subjected to a structural analysis on par with spoken languages. The differences between different SLs, and the arbitrary aspects of sign languages were emphasized, and the importance of iconicity of sign languages was minimized (Woll, 2013, pp. 6-7).

2.2 LINGUISTICS OF SIGN LANGUAGES

The SLs of the world's deaf communities are natural languages in the visual-gestural modality. It is not known how many SLs exist in the world, as most lists of the world's languages exclude SLs (Woll, 2013, p. 3). Ethnologue lists 129 deaf community SLs, and 27 SL shared by communities that may consist of hearing and deaf or only hearing (Eberhard, Simons & Fennig (eds.), 2022). The number may be larger, and is not divinable by the number of SpLs in the world. For example, there is a different SL in the UK (BSL) than in the

[3] In written English, deaf signers who belong to a deaf community are sometimes referred to as Deaf, while the medical condition is written as deaf. In written Norwegian no such distinction is as of yet commonly used. When using historical sources there is also the unanswerable question of when the deaf are referred to as a community or simply in the meaning 'non-hearing'. This thesis will therefore only write deaf for the sake of simplicity. The author naturally views the deaf SL communities around the world as linguistic and cultural minorities, and in other words the D is implied.

US (ASL), which are not mutually intelligible. This due to the history of the education of deaf people, which has created separate deaf language communities (Woll, 2013, p. 3).

The SLs in the world today are young languages, which have appeared naturally during the last 300 years, often in connection to the establishment of schools for the deaf. These schools brought together a number of deaf individuals who over time formed SL communities. In some parts of the world deaf children still do not have access to education at schools for the deaf, and in other parts schools for the deaf have only existed the last few decades. One example of this is Nicaragua, where the first school for deaf children was established in the 1980s, which led to the beginning development of Nicaraguan Sign Language. A few places in the world have historically had a prevalence of genetic deafness, which created communities with a large percentage of deaf people, and a SL used by both deaf and hearing members of the community (Woll, 2013, p. 3).

The SLs of the world are not mutually intelligible, but display a larger cross-linguistic similarity than what is found between SpLs (Woll, 2013, p. 7). Different simultaneous configurations of the hands, including hand-shape, movement (in space or movement in the joints) and location of the hand(s) can constitute minimal pairs, thus making these configurations a part of SL phonology. Morphology is often shown in the use of different meaningful handshapes in combination with movement and location, both for derivational and inflectional morphology. SLs use three-dimensional and spatial syntax to a large extent, and while many researchers have tried to fit the spatiality of SL syntax into theories of abstract linguistic properties, it has become common to see the spatial syntax found in SLs as an instantiation of signers' representations of the locative relationships that are inherent in the real world among people, places and objects (Woll, 2013, pp. 9-10).

Several reasons are posited for the greater similarity between SLs than between SpLs. One is that SLs are young languages, with a large amount of creolization. Few signers are themselves the children of signers, and this may cause constant re-creolization in communities where deaf children mainly learn SL outside of their families. The large number of non-native and L2 signers compared to native signers in many SL communities may also slow down processes of grammaticalization (Johnston, 2019b, p. 985). Iconicity is an important factor in the creation of signs in all SLs, and may also cause greater similarity (Woll, 2013, p. 7). It should be noted that the iconicity of SLs does not lead to identical lexicons. There can be great differences in lexicon between SL communities, as the different communities may use different iconically

motivated signs for the same concept (Woll, 2013, p. 3). The greater linearity of SpL syntax may also allow more differences than the spatial syntax systems of SLs, and the syntax in SLs may be further affected by a fusion of gesture and linguistic content (Woll, 2013, p. 7). The next section will give a closer look at the sign types in SLs, with examples from Norwegian SL.

2.3 SIGN TYPES

This section presents a description of different sign types in SLs. Information on sign types is useful background information for the literature review presented in section 5, where several of the sign types are mentioned. The description of sign types also help place the concept of constructed action in a larger context, as one of many types of expressions used to refer to entities in SLs, before describing CA more closely in section 3.

In addition to a distinction between an open class of content signs, and a closed class of function (grammatical) signs (as in SpLs), signs in SLs can be described as either fully lexical, partly lexical or non-lexical. Fully lexical are conventionalized and entrenched signs with a citation form that could be listed in a lexicon. Fully lexical signs are the closest to the concept of a word as a minimal pairing of form and meaning, as they are free morphemes. These signs may be content or function signs (Johnston, 2012, p. 166). Examples of two lexical content signs in Norwegian SL are found in figure 3 below.

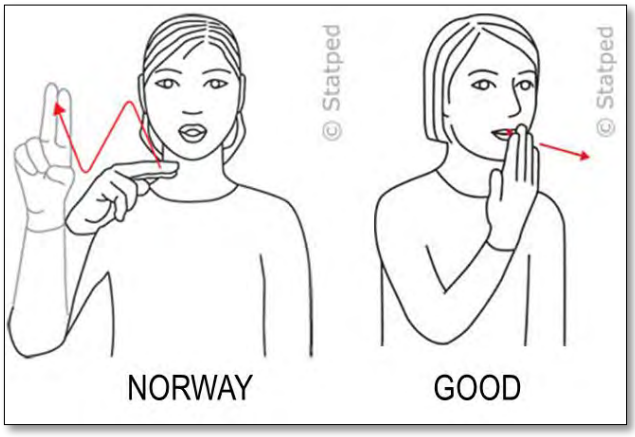

Figure 3:

Examples of lexical signs NORWAY and GOOD in Norwegian SL. Sign illustrations retrieved from Statped (2016).[4]

[4] Norwegian original: Tegnillustrasjoner er gjengitt med tillatelse fra Statped. Statped har ikke ansvar for det faglige innholdet i dette produktet.

English translation: Sign illustrations are rendered by courtesy of Statped. Statped does not carry responsibility for the academic content of this product.

The fully lexical category includes different types of verbs. Verbs that are not spatially modified, i.e. they are anchored to one location on the body or in signing space, have sometimes been called plain verbs (for example by Schembri, Cormier, & Fenlon, 2018). An example is the Norwegian SL sign REMEMBER shown in figure 4 below. Another type is indicating verbs (sometimes called agreement verbs). These verbs have conventional citation forms, but can be spatially modified to indicate referents, as in the example of the Norwegian SL sign GIVE in figure 4 below. These verbs have traditionally been analyzed as verbs that are morphologically modified for agreement with an argument, which grouped them as agreement verbs in the sense of SpLs (Woll, 2013, p. 10).

This analysis has been contested by more functionally inclined linguists (e.g. Engberg-Pedersen, 1993; Liddell, 2003), who consider these signs to be a fusion of linguistic and gestural content, and consider the loci of these signs to be based on the real or imagined locations of referents (i.e. the spatial modification of the signs indicate these referents), rather than abstract or arbitrary locations in space, and these signs are thereby analyzed as indicating signs (Woll, 2013, p. 10). The handshape and movement constitute the conventional, linguistic elements, while the locus is attributed to the gestural aspect (Liddell, 2003; Woll, 2013, p. 10).

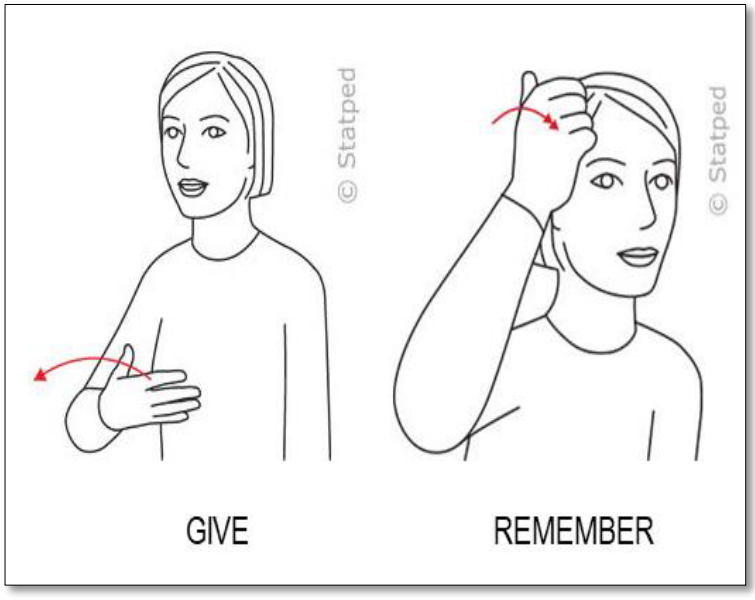

Figure 4:

Left: An example of an indicating verb. The Norwegian SL sign GIVE, as in giving to somebody else. The loci of the sign can be changed based on the direction of the recipient. Right: An example of the plain verb REMEMBER.

Sign illustrations retrieved from Statped (2016), see footnote number four.

Some lexical signs are entrenched forms of fingerspelling (Johnston, 2012, p. 185), i.e. spelling of words from a written language by the use of an SL hand-alphabet. An example is the Norwegian SL sign OK, which is made up of the hand-alphabet signs O and K. Several lexical signs also include mouthings, or may include mouthings. Mouthings are mouth

movements based on the mouth movements of a word in the ambient SpL. Signs may also include mouth gestures, which are mouth movements that are not borrowed from a SpL (Johnston, 2019a, pp. 52-53).

Partly lexical signs incorporate both lexical and gestural elements, with some parts of their meaning specified in the form, while other parts are understood from context and spatial mapping in signing space, i.e. by localizing signs in the space around the signer. The two major categories of partly lexical signs are pointing signs (sometimes referred to as indexing signs) and depicting signs (sometimes known as classifiers). Pointing signs have subgroups with functions such as pronominals, possessives, determiners and locatives (Johnston, 2012, p. 166), two examples are found in figure 5 below. The hand shape used in the left picture is often used with pronominal, determinative and locative functions. The context of use is necessary to establish which function and what or who the point refers to. The hand shape in the right can be used for possessives, the context of use determines if it is a possessive meaning "yours" (singular) or "his/hers/their" (singular).

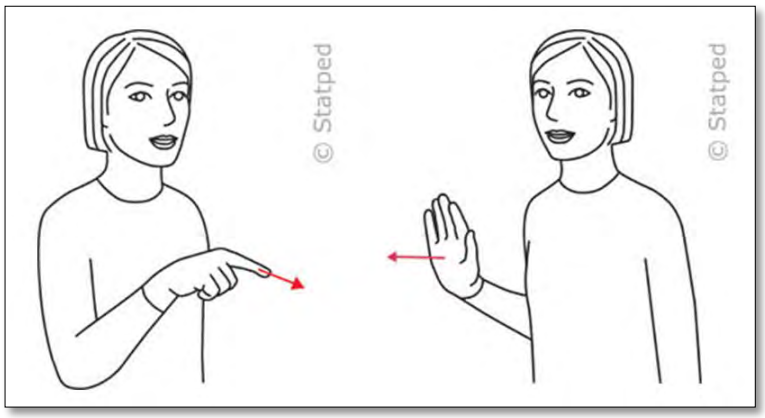

Figure 5:

Two instances of pointing signs in Norwegian SL. Sign illustrations are retrieved from Statped (2016), see footnote number four.

Depicting signs have subgroups that can depict movement, distribution or location of entities (humans, animals, objects), their size or shape and how objects are handled (Emmorey, 2002, pp. 73-74). For example, index finger and middle finger bent and with a downward orientation can depict "something two-legged and reclining located at X" (Johnston, 2019a, p. 34), additional meaning is specified by the context of utterance. In figure 6 below, the aforementioned handshape is used on both of the signer's hands to depict a long line of two-legged, reclining creatures, which in the specific context of the utterance is a depiction of a long line of frogs sitting next to one another.

Figure 6: An example of a depicting sign used to depict a long line of sitting frogs. (Ferrara (in prep.): NTSFrog_KNTS_TSF_B_Frosk.eaf. BT: 00:02:05.726, ET: 00:02:06.671)

Non-lexical signs are tokens of signing that are unspecified in form, and are dependent on inference and the communicative context to be understood and interpreted correctly. Non-lexical signing can also be called gesture, in the sense of bodily acts that are intentionally communicative, but which are not conventionalized (or conventionalized to a very low extent). Gestures may be used in many different functions, including as nouns or verbs. They may also be used to regulate interaction, or express mood or attitude. An example can be moving a hand with spread fingers downward to dismiss what someone is saying (seen in figure 22, section 8.7). The highly conventionalized 'gestures' used across language communities (both signed and spoken), such as thumbs up to signify something positive, are not gestures in this sense, but are rather called emblems. In SLs, these emblems are included in the category of lexical signs (Johnston, 2019a, pp. 16-17).

Constructed action is considered non-lexical, as any enactment of an action is situated in the discourse context it appeared in (Hodge et al., 2019, pp. 35-36). Through the use of constructed action and acts of indication, signers also create what is called invisible surrogates. For example: In figure 2 the signer enacts the boy in the Frog Story as he is leaning over a log, and discovers a group of frogs. The log is indexed by the signer's hands as the boy's movement is constructed, and the frogs are indexed by the eye-gaze and body orientation of the signer through the act of CA, that is: The signer behaves as if the log and the frogs were actually present, making them invisible surrogates, which is visualized in

figure 7 below. More information about CA is presented in section 3, and invisible surrogates will be described further in section 3.7.

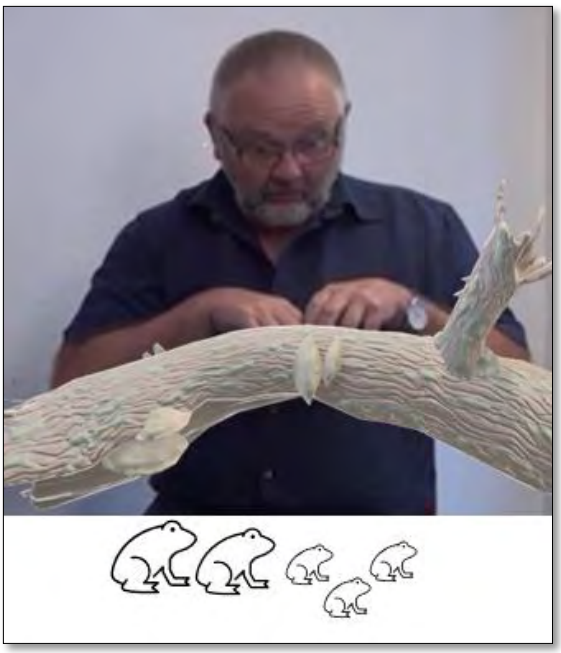

Figure 7:

A signer's CA of the boy in the Frog Story, with a visualization of the invisible surrogates of the log and the frogs.

(Ferrara & Bø, 2015 (collection date)): NTSFrog_P-TKOKO4-eaf. BT: 00:01:36.493, ET: 00:01:37.268)

The sign categories presented in this section show how linguistic and gestural content is fused in SLs. Supporting this view, Schembri (2003) writes that handshapes that are often described as classifiers in SL literature, for example the upturned index finger that is often used to depict the movement and/or path of human referents, have striking similarities across several unrelated SLs. These handshapes are also evident in isolated deaf people using home-made signs, and share similarities with the gestures that non-signers use when they are asked to communicate using only gesture. Schembri (2003) notes that this is because the handshape acts as a surrogate for the referent, and has a direct correspondence between form and meaning. E.g. the shape of an upturned finger bears some resemblance to a standing person. Signers and non-signers show similarities in the movement and location of the handshapes used, but signers choose combinations of handshapes and movement that are more abstract and categorical, following morphological restrictions (Schembri, 2003, pp. 25-26).

The categories of lexical, partly-lexical and non-lexical are gradient: A sign might go through a process of lexicalization and become fully lexical. Lexicalization in SLs is described as:

> "… when a signed unit acquires a clearly identifiable and replicable citation form that is regularly and strongly associated with a meaning that is more specific than the sign's componential meaning potential, even when cited out of context; cannot be predicted based on these components alone; or is quite unrelated to its componential meaning potential, that is, it may be arbitrary." (Johnston, 2012, p. 166).

Simultaneously, there is a possibility of delexicalizing in the act of communication. Especially those lexical signs that are strongly iconically motivated and resemble the action or object they denote, are subject to delexicalization (Cormier, Quinto-Pozos, Sevcikova, & Schembri, 2012). Below in figure 8 and 9 are examples of iconically motivated signs both in their lexical citation form, and as tokens of enactment. Through the act of delexicalization, signs are brought back to their iconic and mimetic origins. As readers may note, the delexicalized, enacted versions also show *how* the action is performed in the specific context of use, while the lexical citation forms contain no such additional information.

Figure 8: One of the Norwegian SL signs for SLEEP:
1. As a lexical sign with mouthing (Norwegian "sove" i.e. "sleep") vs.
2. In a productive form during an enactment of sleeping peacefully.
(Ferrara and Halvorsen (2021): RPH12_ES_Frosk2.mp4. Left picture: BT: 00:00:10.310, ET: 00:00:10.850. Right picture: BT: 00:00:29.010, ET: 00:00:30.080)

Figure 9: Norwegian SL manual sign CAR/DRIVE, which is a lexicalized sign of handling, more specifically of holding the steering wheel of a car.
1. As a lexical sign with mouthing (Norwegian "kjøre" i.e. "drive") vs.
2. Enactment of driving and being distracted on the road.
(Ferrara and Bø (2015 (collection date)): P-TO1_KOK.eaf. Left picture: BT: 00:01:26.559, ET: 00:01:26.689. Right picture: BT: 00:00:56.440, ET: 00:00:56.706)

2.4 NORWEGIAN SIGN LANGUAGE

According to Norway's Association for the Deaf (Norges døveforbund) there are approximately 16.500 signers of Norwegian Sign Language, and approximately 5000 of these are deaf signers (Norges døveforbund, n.d.) The numbers are only tentative, as no official census has been undertaken. The language is approximately 200 years old, as the first documentation of a SL in Norway is from 1799, and was not officially considered an independent language until 1985 (Språkrådet [the Language Council of Norway], 2019). In 2021 a new language law was proposed, enacted January 1st 2022, which officially recognized Norwegian Sign Language as the national SL of Norway, and consequently an official minority language. The law also states that: "As an expression of language and culture, Norwegian Sign Language is equal to Norwegian." (My own translation) (*Lov om språk (Språklova) [The Language Law]*, 2021). Unlike other minority languages in Norway, Norwegian SL is not tied to any ethnic group, but rather to the deaf community of signers in Norway (Greftegreff, Handberg, & Schröder, 2015, p. 651).

2.4.1 A brief history of Norwegian Sign Language

The first school for the deaf in Norway was established in 1825 in Trondheim by Andreas Christian Møller (1794-1874), who was himself deaf and taught other deaf people using sign language. Møller had previously attended a school for the deaf in Copenhagen, Denmark. It is therefore likely that the Norwegian SL at the time was closely related to Danish SL (Norsk døvemuseum [Norwegian Museum of the Deaf], n.d.; Schröder, 1993, pp. 232-233). More research is needed to establish if the Norwegian SL of today is to be considered related to Danish SL through the Danish SL of the early 1800s. Another possibility is that the deaf children attending the A.C. Møller school had already developed their own SL, at least in part, and that Danish SL was just one influence. If so, Norwegian SL should rather be considered a language isolate which was highly affected by Danish SL during the early years of development (Vonen, 2020, p. 22).

In 1880, a conference in Milano for the teachers of the deaf, decided that signing was inferior to SpL in the education of deaf children. Therefore, SL was barely used at schools for the deaf in Norway from 1880 until about 1980, as it was believed that signing would negatively affect the children's learning of SpL (Haualand, 2015). Instead, the children were taught the oral method of communication, which meant that SpL was to be the primary mode of education and communication, with the exception of some natural signs that were used to facilitate lip-reading (Schröder, 1993, p. 233). Natural signs are signs which originate in mimetic representations of actions by the hands, for example EAT, DRINK (Vonen, 2020, p. 70).

The first (re-)addition of signs in the education of deaf children in Norway was through the use of a kind of signed exact Norwegian[5], thought to facilitate the learning of spoken and written Norwegian. In 1974 this form of signed exact Norwegian was even championed by the Norwegian Association of the Deaf: "As long as schools for the Deaf maintained an exclusively oralist policy, one had to struggle for the introduction of sign language into education tactically by championing sign supported speech." (Schröder, 1993, p. 239). The natural signs of Norwegian SL as used by deaf people were long considered poor signs, and generations of deaf people were taught that their own, natural SL was inferior to Norwegian. New signs were made in the 70s that were thought to be "prettier" and more "logical" than the older signs, and signs were even constructed to visualize grammatical structures in

[5] A sign by sign rendition of the spoken language following the grammar of the spoken language, not the natural grammar of a sign language.

Norwegian. For example the Norwegian word “hadde” (had) was expressed as HA + FORTID (HAVE + PAST) (Schröder, 1993, p. 239).

Language variation at the time was not systematically explored (and has not been since), but dialectal variants from each of the schools for the deaf have been known within the deaf community. For example a traditional divide between the signing in Oslo vs. Trondheim, among other deaf school locations (Greftegreff et al., 2015, p. 650; Vonen, 2020, p. 33). A part of the standardization from ‘tegnspråknorsk’ (‘Signed Norwegian’ i.e. sign exact Norwegian) was also aimed at reducing this language variation, and creating signs that were uniform across the country. There was even an attempt at creating a common Nordic SL. While this is an era of the past, some of the signs introduced in the era are still in use today (Vonen, 2020, pp. 27-28).

Dialectal differences between Oslo and Trondheim were still found in 1993 (Schröder, 1993), and Greftegreff et al. (2015) note that some differences were still evident between the two dialectal areas at their time of writing, mainly among older signers. Younger signers were not as conscious of differences, and the authors took this as an indication that the vocabularies are not as distinct as they once were (Greftegreff et al., 2015, p. 651). The 1985 recognition of Norwegian SL as a language in Norway further had an impact on language training: In 1996 hearing parents of deaf children were given comprehensive training in Norwegian SL, followed by separate curriculums for deaf children in primary schools in 1997. The separate curriculums, called L97, effectively made Norwegian SL the first language of many deaf children in Norway (Språkrådet [the Language Council of Norway], 2019).

2.4.2 The language situation today

While Norwegian SL is officially recognized today, the language and its language community are still under a great deal of pressure. Språkrådet, the Language Council of Norway, has reason to think that the number of people with Norwegian SL as their first language is decreasing. A large part of this is due to the closing of state owned special schools for the deaf, and due to many teachers for the deaf lacking first language competence in Norwegian SL (Språkrådet [the Language Council of Norway], 2017). After 150 years of deaf children attending state owned boarding schools for the deaf, all the schools are now shut down (Vonen, 2020, p. 142). The schools for the deaf functioned as arenas of sign language learning, where Norwegian SL was transmitted from generation to generation. Even in periods of time where SL was prohibited within the classrooms, the boarding schools were

where the children could sign with their peers and the schools' deaf employees (Vonen, 2020, p. 23). Today, the only primary schools with mainly deaf and hard-of-hearing students are the municipal school of Vetland in Oslo, and a school for deaf and hard-of-hearing children with special needs in Andebu in Vestfold, run by the foundation Signo. Elsewhere in the country deaf and hard-of-hearing children are taught in smaller groups at some municipal schools, or as the only deaf student in a regular class at their local school (Vonen, 2020, p. 142).

Some of the deaf or hard-of-hearing children that are attending their local schools across the country, receive education in Norwegian SL through a part-time program (Vonen, 2020, p. 142). There is a large variation in the education the children receive at their local schools, and there is a great need for qualified personnel and language arenas for these children. Very few schools can offer teachers that are fluent in the language, and many children do not have sufficient access to Norwegian SL (Språkrådet [the Language Council of Norway], 2017). It is ultimately the parents' choice which language(s) their child is taught, and thus not all hard-of-hearing children in Norway are taught Norwegian SL (Greftegreff et al., 2015, p. 658). An assessment by a professional is also needed for a child to receive education in Norwegian SL, and there are cases of parents who wish education in Norwegian SL for their children, but are not given this right due to assessments by professionals without competence in and about SL (Språkrådet [the Language Council of Norway], 2017).

2.4.3 Linguistic research on Norwegian Sign Language

The aforementioned Odd-Inge Schröder (b. 1947) and Marit Vogt-Svendsen (b. 1949) were the first researchers on Norwegian SL. In addition to works on deaf history, education and Norwegian SL as a minority language, Schröder has contributed with early work on the phonology of Norwegian SL, i.e. Schröder (1983). Vogt-Svendsen was the first with a doctorate in Norwegian SL linguistics, with a dissertation on interrogative structures in Norwegian SL in 1990 (Vogt-Svendsen, 1990). A thesis she wrote in the late 70s was later revised and made in to the first textbook for Norwegian SL, as the language was used by the deaf, i.e. Vogt-Svendsen (1983) (Lønnum, 2019). Vogt-Svendsen has also studied phonological and morphological aspects of mouth gestures and mouthings in Norwegian SL (Vogt-Svendsen, 2001).

Other notable linguistic works on Norwegian SL are: Greftegreff (1991, 1992) on hand shapes, phonology and indexicals in Norwegian SL; Selvik (2006) on referencing time in Norwegian SL through the use of spatial metaphors; the study of verb sandwich constructions

by Bø (2010); Erlenkamp (2009) and (2011) with cognitive analyses of depicting verbs/'classifiers' and basic sign/word order in Norwegian SL respectively; Slowikowska Schröder (2011) on imperative in Norwegian SL and Halvorsen (2012) on discourse markers in Norwegian SL. In recent years, there has been further studies on the semiotic strategies used by signers of Norwegian SL. For example, Ferrara and Halvorsen (2017) have studied signers' use of semiotic strategies when they use iconic signs. There is an emphasis on languaging, with more focus on what signers actually *do* in communication, and with less focus on the traditional divide between what is conventional, and what is non-conventional (the traditional 'language' and 'gesture' divide).

The creation of a corpus for Norwegian SL, which started in 2015 and is still ongoing, will also further research on Norwegian SL. Current work, with an emphasis on semiotic strategies and language ecologies, includes work packages for the semiotic strategies of description, indication and depiction in Norwegian SL (Ferrara, 2019). Using videos that have become a part of the ongoing Norwegian SL corpus, Ferrara and Ringsø (2019) have researched signers' use of spatial vantage points, and Skedsmo (2020) has studied conversational repair in Norwegian SL interaction. The establishment of a Norwegian SL corpus has also enabled cross-linguistic research on reference strategies in several SLs, in the soon-to-be-published article on reference strategies in storytelling in Auslan, Norwegian Sign Language, Finnish Sign Language, Swedish Sign Language and Irish Sign Language by Ferrara et al. (accepted).

Further, there are several valuable contributions on the history of Norwegian SL; research on sociological factors and language attitudes; education in sign language; sign language interpretation; and social interaction, among other related themes concerning Norwegian SL and the deaf community in Norway, that are not listed here due to the focus on linguistic research. There is a lack of comprehensive linguistic research on Norwegian SL, even though the aforementioned authors have made valuable contributions in their fields. Much of this thesis will therefore use research done on other SLs. As mentioned, SLs in general share a greater similarity than SpLs, and any phenomena attested in several SLs are assumed to be likely in Norwegian SL as well. That being said, when a language phenomenon is discussed in this thesis, but no sources directly concerning Norwegian SL have been cited, readers should keep in mind that the phenomena have not been properly researched and quantified in Norwegian SL, but are thought to likely occur in Norwegian SL due to cross-linguistic similarities with other, more researched SLs.

The following section will give an in-depth look at the phenomena of CA in SLs, looking closer at how CA is defined and identified, how the different degrees of CA pattern, as well as how CA is used by signers to varying extents. Section 3.7 and 3.8 include descriptions of CA as real space and surrogates, and CA as an agent defocusing construction. These aspect of CA expression are included here as they will be discussed further along with the findings of the study in section 8, “Discussion and conclusion”.

3 CONSTRUCTED ACTION

3.1 WHAT IS CONSTRUCTED ACTION?

Constructed action (CA) is a representational device that is commonly used in sign languages (Cormier, Smith, & Sevcikova-Sehyr, 2015, p. 167). Constructed action has been described as periods of gestural enactment (Ferrara & Johnston, 2014, p. 193) and a discourse strategy (Cormier et al., 2013b, p. 119). Gestural enactments of actions are also common in SpL discourse, and as these SpL enactments, the gestural enactments in SLs can occur simultaneously with linguistic signs, or sequentially (Ferrara & Johnston, 2014, p. 193). Through CA, signers can map a referent from the discourse onto their body, and in this way enable the enactment of that person's (or animate entity's) actions, thoughts, and utterances (Metzger, 1995, p. 266). Signers may also construct actions of inanimate entities, if these are made animate through anthropomorphism (Johnston, 2019a, p. 62).

In the CA, all parts of the signer's body that are involved in the portrayed event, may be used (Metzger, 1995, p. 262). Through the use of space and mapping of different referents on to their bodies, signers may switch between these referents by for example shifting their upper body or gaze (Cormier et al., 2013b, p. 124). A further example of constructed action is shown in figure 10 below. The concept of constructed action was mentioned by Padden (1986) as 'role shift'. At the time, the term was used to describe how signers assumed the roles of different characters in discourse, and was commonly perceived as something non-linguistic. Padden (1986) also noted that so-called role shift displayed constraints that needed to be explored further to figure out its place in the syntax and discourse structure of ASL, and

Figure 10:
Example of CA. The signer is enacting the actions of the boy in the Frog Story, who has grabbed onto what he thinks is a pair of branches, that later turn out to be deer antlers.

(Ferrara and Bø (2015 (collection date)): NTSFrog_P-OULAO4.eaf. BT: 00:01:31.459, ET: 00:01:33.016)

that role shift was an unfortunate term that made the phenomenon seem more like play-acting, something devoid of linguistic content (Padden, 1986, p. 49).

Other terms that appear to be referring to the same concept are 'referential shifting' (Emmorey, 2002; Emmorey & Reilly, 1998; Engberg-Pedersen, 1993), 'expressive attribution of expressive elements' (Engberg-Pedersen, 1993, 1995) and 'body classifiers' (Supalla, 2003) among others. 'Role shift' has been a common term in formalist analyses (Kimmelman, 2018; Quer, 2018). Winston (1992) introduced the term 'constructed dialogue' to sign language research, following work on spoken language by Tannen (1986, 1989) who coined the term 'constructed dialogue' as a term to encompass reported speech or quotations in spoken language discourse. Metzger (1995), building upon the work of Tannen (1986) and Winston (1992) proposed the term 'constructed action' in her work on American Sign Language (ASL), to encompass all enactments by signers of what referents in discourse say, do, think or feel. Some sign language researchers have distinguished between *constructed dialogue,* representing utterances, from *constructed action* as representing action (Lillo-Martin, 2012; Pfau & Quer, 2010).

Constructed action and dialogue can be difficult to distinguish, not only because they can co-occur, but also because some cases of CA cannot be classified as either action or dialogue, but rather as a character's thoughts or feelings as imagined by the signer (Cormier et al., 2013b, p. 121). Metzger (1995) treats constructed dialogue (CD), i.e. a construction of signers' utterances, as a form of CA, and I will use the Metzger (1995) definition of CA as subsuming both utterances and actions, including imagined thoughts or feelings. This is further the definition that is used in Cormier et al. (2013b) whose hypothesis is the basis of this thesis. 'CD' will be used as a gloss in picture examples when the instance of enactment is solely quoting an utterance, as in figure 11 below. Yet, CD is considered a sub-type of CA and not a separate form of enactment, and any instances of enactment that include both enactment of utterances and actions, or enactment of thoughts and feelings, are labeled simply as CA.

Figure 11: Example of constructed dialogue. The signer is in the role of someone else, who is telling the signer that he should try the Thai food.
(Ferrara (in prep.): KNTS_Tr_JCV_PH.eaf. BT: 00:06:54.728, ET: 00:06:55.901)

3.2 IDENTIFICATION OF CONSTRUCTED ACTION

Researchers have disagreed on which bodily actions signal a stretch of discourse to be identified as CA. A break in eye-gaze has been considered to be obligatory by several authors (e.g. Loew, 1984; Padden, 1986; Reilly, 2000), while Metzger (1995) considers facial expression, movement by head and body, and optionally break of eye-gaze to be markers of CA. The shifting of the torso between enactment of different characters is also something that has been remarked upon by several authors, but is not the only way to signal shifts between enacted referents, and is generally not considered an obligatory aspect of CA (Emmorey & Reilly, 1998, p. 82). In a study of perspective shift in ASL, Janzen (2004, p. 169) found that a change in the signer’s stance did not signal a shift in reference, but was due to the signer enacting the stance of the character.

Ferrara and Johnston (2014, p. 201) do not consider the non-manual behaviors as listed above (facial expression, movement by head and body, eye-gaze etc.) as grammatical markers of CA, but rather as parts of CA. This is because which non-manual behaviors are used differ based on what is being enacted. CA is therefore identified not by a list of features, but by

whether the signer is enacting someone or something. The list of features is helpful to delineate periods of CA from periods without CA, but are not considered definitive grammatical markers. A break in eye-gaze, which has been deemed a marker of CA by some authors (e.g. Padden, 1986; Reilly, 2000), is by Ferrara and Johnston (2014) considered something which *may* indicate the start of CA. Within the enactment, the eye-gaze is considered to be that of the enacted character, not that of the signer or narrator (Ferrara & Johnston, 2014, p. 201). How CA was identified in the data material used in this study is further explicated in section 6.5.1.1.

3.3 BODY PARTITIONING WITH CONSTRUCTED ACTION

Dudis (2004) shows that CA can be used to represent more than one referent simultaneously, and not just sequentially. This is done through what he names 'body partitioning' where for example the face may be partitioned off and is enacting the feelings and reactions of a referent, while the hands and rest of the body may be narrating, or even enacting another character at the same time (Dudis, 2004, p. 228). Janzen (2008, p. 134) further comments that the simultaneity of the articulation system of ASL allows signers to encode two referents at once, within a single clause. Figure 12 below is an example of body partitioning with CA.

Figure 12: Body partitioning with CA. The signer enacts the boy in the Frog Story, while the right hand depicts a mole, who jumps up to bite the boy's nose.
(Ferrara and Halvorsen (2021): RPH12_PS_Frosk3.mp4. BT: 00:01:10.820, ET: 00:01:11:450)

3.4 DEGREES OF CONSTRUCTED ACTION

Metzger (1995) separated CA into three different categories, which were called *direct action*, *indirect action*, and *simultaneous direct and indirect action*. Direct action is when the signer is "fully" in character, with actions constructed by the signer through the use of body, face and other body parts, with little or no use of lexical signs. Indirect action is when the signer is mainly in the role of narrator, but the body is still minimally involved in CA. Simultaneous direct and indirect is when the body, face and other body parts is involved in CA, with some limited narration, often understood as comments by the signer (Metzger, 1995, pp. 262-263).

Cormier et al. (2015) with a basis in Metzger (1995) use the terms *overt*, *reduced* and *subtle* for different degrees of CA. In overt CA the signer is fully in character, with no use of explicit narration such as lexical signs. The example in figure 10, of the boy holding the deer antlers, is an example of overt CA. Figure 7 of the boy leaning over the log is also overt CA. In reduced CA, the signer is in character with several articulators, but the action is reduced and co-occurs with some narration, such as using some lexical material at the time of CA. In subtle CA, one or few articulators are actively used to construct action. This might be only the eye gaze, while the primary role of the signer is that of narrator. Typical examples include full narration with only the face constructing the feelings and reactions of the character (Cormier et al., 2015, pp. 190-191). This thesis will use the terms overt, reduced or subtle if explicating degrees of CA is necessary. Figure 13 below is an example of reduced CA, as the facial CA co-occurs with narrative material on the right hand.

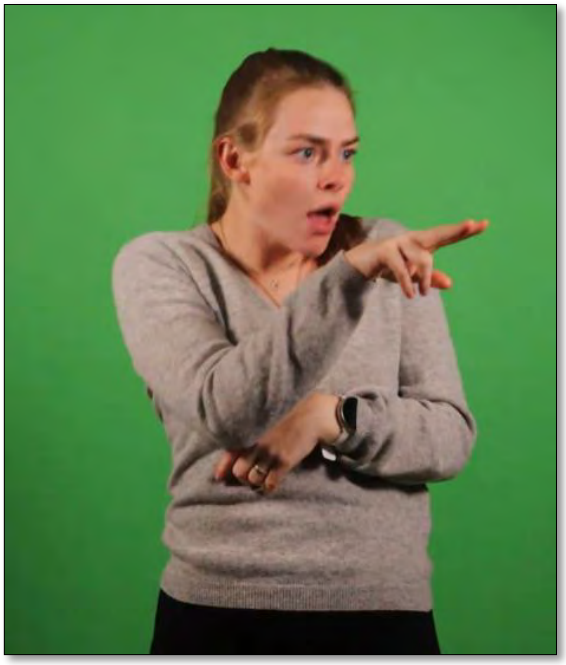

Figure 13:

Typical example of CA co-occurring with the sign LOOK-AT.

(Ferrara (in prep.): NTSFrog_KNTS_B_CNT_Frosk.eaf, BT: 00:01:12.502, ET: 00:01:13.042)

3.5 ROLE SHIFT AND CONSTRUCTED ACTION

Constructed action and role shift are terms which have often been used interchangeably, but Cormier et al. (2015) seek to define these as two different concepts. This is to ease some of the misunderstandings that are caused by different researchers using them as indistinguishable from each other, while at the same time using their own definitions. CA is here, in line with Cormier et al. (2015) a stretch of discourse where the signer is continuously in one role, or in more than one role combined simultaneously. Role shift is only used as a term for a switch between roles, such as a switch from a period of CA to a period of narration, or a switch between different character roles expressed through CA (Cormier et al., 2015, p. 195). In this thesis I will use the same differentiation of terms, to ensure that there is no confusion between the two. The pictures in figure 14 below show two periods of CA. The shift in stance between the first row and the second row of pictures, is an example of role shift between character roles, following the definition of Cormier et al. (2015).

Figure 14:

Example of role shift between character roles. The signer is in the role of the boy in the first row of pictures, and in the role of the frogs in the second row of pictures.

(Ferrara and Halvorsen (2021): NTSFrog_RPH_12_ES_Frosk2.mp4. BT: 00:04:01.150, ET: 00:04:04.490)

3.6 VARIATION IN THE USE OF CONSTRUCTED ACTION

The use of constructed action has been found to be variable across signers. In a study of Auslan, Ferrara and Johnston (2014) hypothesized that this is due to general variation within SL communities, which may display a greater degree of acceptable variation than is found in more 'established' languages (Ferrara & Johnston, 2014, p. 201). Puupponen, Kanto, Tuija and Jantunen (2022) in their study on CA in Finnish Sign Language, also found variations across signers, in addition to factors related to text type. The use of CA has been largely tied to narratives, as the use of CA has been found to be much less prevalent in conversations than in storytelling (Ferrara & Johnston, 2014, p. 212; Puupponen et al., 2022, p. 32). In conversations involving spatial language, such as talking about routes from A to B, Ferrara and Ringsø (2019, p. 590) found a very low frequency of CA. Puupponen et al. (2022) theorize that in conversations, the topic of the conversation plays an important role in the use of CA, and that more CA is likely to occur when signers talk of animate referents.

Overt CA was the CA type used most frequently in both conversations and storytelling in Finnish SL, but the CA in conversations was more likely to be reduced or subtle than the CA found in storytelling (Puupponen et al., 2022, p. 32). They further found that the age of the signer had an effect on the use of CA, and that older signers were more likely to use CA than younger signers, especially regarding the use of overt CA. Younger signers generally used less CA, and were more likely to use reduced or subtle CA than their elders (Puupponen et al., 2022, p. 33). The variation may be due to different educational practices of deaf children over the years in Finland, which has reduced the amount of inter-generational transmission (Puupponen et al., 2022, p. 32). In the thesis study, signers are not differentiated based on their age. This thesis aims at finding general patterns of framing with CA in Norwegian SL, and the data is therefore of an equal number of older and younger signers. Further metadata of the signers in this study is found in sections 6.2.1 and 6.2.2.

3.7 CONSTRUCTED ACTION AS REAL SPACE AND SURROGATES

Liddell and Metzger (1998) were the first SL researchers to use 'Mental Space Theory' by Fauconnier and Turner (1996) to explain what signers do when constructing actions. Liddell (2003) described CA as surrogate blends, where a signer's conceptualization of an event blends with the space directly in front of the signer through the production of the CA. Liddell and Metzger (1998) coined the term *real space* for this conceptualized space in front of the

signer. Parts of the signer's conceptualization and real space are projected to a created, mental space – the blend. Both signers and speakers can construe people and objects around them as something else (Liddell, 2003, p. 141). The use of blending can lead to the use of both visible and invisible surrogates during signing. Visible surrogates are depicted by the bodily actions of the signer and are often used for animate objects (Hodge et al., 2019, p. 33). In figure 10, the signer's hand movements of grabbing onto something, is a conceptualization of a boy grabbing onto deer antlers. The signer's mental conceptualization of the story blends with real space to create the blend, which allows us to perceive the signer not as herself, but as the boy. The signer uses herself as a surrogate, as her hands, upper body and face are surrogates for the hands, upper body and face of the boy. This type of blend is therefore called a surrogate blend (Ferrara & Johnston, 2014, p. 197).

Invisible surrogates are when signers conceptualize entities in the space around them, and through indexing actions, including posture and eye gaze, behave as if the entities are there (Hodge et al., 2019, p. 37; Liddell, 2003, p. 141), as mentioned in section 2.3, and visualized in figure 7 with the frogs and the log. An additional example of an invisible surrogate is the deer in figure 10, as the deer is only indexed through the actions of the boy as the visible surrogate. Similarly, what the signers look at in figure 13 (LOOK-AT) and figure 14 (CA with role shift), are invisible surrogates indexed by the use of eye gaze and body orientation, as well as the orientation of the sign LOOK-AT in figure 13.

3.8 CONSTRUCTED ACTION AS AN AGENT DEFOCUSING CONSTRUCTION

Rankin (2013) researched agent defocusing in ASL, and found different levels of agent defocusing constructions. The level of focus is based on the agents' "relative prominence and specificity." (Rankin, 2013, p. 20). To exemplify: In English, the subject position is the most prominent position in a sentence, and any entity in this position is in primary focus. In English passives such as in "your bike was stolen", the agent (the someone who stole the bike) is removed from the prominent subject position, and is also unspecified. In other words the English passive reduces focus on the agent by giving it both a low level of prominence and a low level of specificity (Rankin, 2013, pp. 19-20).

Agent defocusing strategies found in ASL are not structurally equivalent to the English passive, ASL rather employs a variety of agent defocusing strategies that reduce the prominence and specificity of the agent to varying extents. Blends where signers use themselves as a surrogate, i.e. CA, can be used to make the agent's role prominent, while

reducing the focus on the agent by not specifying the agent's identity. Another way to reduce the focus on the agent is: "… through overt subjects that are semantically underspecified" (Rankin, 2013, p. 57). One way to semantically underspecify the overt subject, is by the use of pronouns with unspecified reference (Rankin, 2013, p. 68). The agent defocusing construction which is fully defocused, and thus most similar to passives as used in English, consist of plain verbs without overt agent expression, i.e. null (Rankin, 2013, p. 55). The same strategies were found by Nordlund (2019) on agent defocusing in Finnish Sign Language: The agent could be omitted entirely, could be expressed with a non-referential pronominal point, and additionally through constructed action as a possible strategy to tell an event from the agent's perspective, or from the patient's perspective (Nordlund, 2019, p. 1). This thesis will look closer at CA as an agent defocusing construction in section 8.7 of the discussion.

The next section will present an overview of the reference theory that this thesis builds upon, with presentation of the work of Chafe (1976), Givón (1983a, 1983b) and Ariel (1991), as well as explicating how the accessibility of referents is operationalized in this thesis, and background for the choice of including all referents of CA rather than only subject referents, including discussion of what 'subject status' may entail in different definitions of the term.

4 REFERENCE AND SWITCH REFERENCE

Communication through a language involves the act of talking about things, whether that is people, places, objects, or our thoughts and more abstract concepts and ideas. When we talk about these things, we carry out the act of reference. Interlocutors need to infer what the signer or speaker is referring to, both through decoding the expression that is used, and by inferring from the context of utterance. Which referring expression is used depends on what the signer or speaker believes that their interlocutor can identify, and is thus a way for signers or speakers to guide their interlocutors to the correct interpretation (Scott, 2019, pp. 1-2). As stated by Gundel, Hedberg and Zacharski (1993):

> "It is widely recognized that the form of referring expressions … depends on the assumed cognitive status of the referent, i.e. on the assumptions that a cooperative speaker can reasonably make regarding the addressee's knowledge and attention state in the particular context in which the expression is used …" (Gundel et al., 1993, p. 275).

Research on reference and switch reference in both spoken and signed languages are often based on the classical works of Chafe (1976), Givón (1983a, 1983b) and Ariel (1991). These works are also referred to in Cormier et al. (2013b), which has been the basis of this thesis. The presentation of these classical works provide the background for later sections on previous research on reference, as well as providing necessary definitions of the terms that are used in this thesis.

4.1 CHAFE

Chafe (1976) introduced the term 'givenness' to distinguish between what the language users believe to be new or given information in the minds of their interlocutors:

> "Given (or old) information is that knowledge which the speaker assumes to be in the consciousness of the addressee at the time of the utterance. So-called new information is what the speaker assumes he is introducing into the addressee's consciousness by what he says." (Chafe, 1976, p. 30)

Concepts that are given are expressed in a phonologically weaker manner, i.e. in a more reduced form than referents that are new. For example, given concepts can be expressed with weaker stress and pronominalization. Pronominalization occurs when a concept is thought to be given in the mind of the addressee. When there is possible ambiguity, pronominalization does not necessarily occur, such as using a pronoun as a referring expression when the pronoun can refer to two or more referents (Chafe, 1976, p. 31). Chafe (1976) also argues that givenness is short-lasting, due to the limited capacity of the consciousness. Naturally, language users do not always know when a concept has left the consciousness of their interlocutors, and as such may refer to referents in a manner which is not retrievable for the person they are talking to, such as using a pronoun when the interlocutor no longer remembers who the pronoun refers to (Chafe, 1976, p. 32). In other words, what the language user believes is the cognitive status of a referent in their interlocutor's consciousness, affects which referring expression is chosen to refer to the referent in question. Chafe (1976) also theorized that there were degrees of givenness, and that the language user could assume something to be in the in the addressee's consciousness to varying extents (Chafe, 1976, p. 33).

4.2 GIVÓN

Givón (1983b) notes that "human discourse is primarily multi-propositional." (Givón, 1983b, p. 55). That is: We tell stories, or what Givón calls thematic paragraphs, and we do this by creating chains of clauses that are related to the same theme, and repeat the same topic (Givón, 1983b, p. 55). Givón does not treat the concept of topic as a discrete entity, but rather as a functional, gradient category (Givón, 1983a, p. 5). A topic which is recurring is likely to be construed as the 'main clausal topic'. The topic is more accessible and easier to process for interlocutors if it is the same as in the preceding clauses, which creates *topic continuity:* "Topic continuity — or topic predictability — is thus the unmarked case in human discourse. On the other hand, topic change - discontinuity, surprise - is the marked case in discourse." (Givón, 1983b, p. 55). The topic which is most central in the thematic paragraph is the continuity marker, and is the participant which is "*most crucially involved* in the action sequence" (Givón, 1983a, p. 8). This participant is also most likely to be the primary topic or the grammatical subject in the majority of the clauses in the thematic paragraph (Givón, 1983a, p. 8).

Givón (1983a) states different factors that affect how easy it is to identify a topic in discourse. The first is how long it has been since the topic was last mentioned. The first introduction of a topic is the most difficult to process. If a topic returns after not being mentioned for a while, it is also quite difficult to process, and the easiest to identify are topics that were mentioned in the preceding clause. The second factor is interference from other topics. If there are several other topics present in the discourse, it is more difficult to identify the correct one. If no other topics are present, topic identification is easiest (Givón, 1983a, p. 11). The third factor is availability of semantic information. When there are several possible topics, how likely is it, semantically, that a certain topic could participate in a particular semantic or grammatical role? E.g. As an agent, patient, grammatical subject and so forth. The fourth factor is availability of thematic information, that is information from the preceding discourse that makes certain topics more probable, in the sense that they have higher importance in that particular discourse setting.

The first two factors are the ones that are most easily quantified. In addition to these factors, Givón points out more person-specific factors such as personality, memory, life experience, and the assumptions that interlocutors make about each other may have an effect, but that these factors are less easily quantified (Givón, 1983a, pp. 11-12). Further, Givón (1983b) marks continuity/discontinuity on a scale, where the most discontinuous topics are marked with, among others: Focus constructions, contrastive topicalization and noun phrases, in that order. Pronominalization is on the more continuous part of the scale, and the marking of the most continuous topics is always zero anaphora (Givón, 1983b, p. 56).

Zero anaphora refers to the use of a 'gap' in a clause, sometimes called null or zero, which refers back to an antecedent: Something which has already been mentioned in the discourse. An example from Norwegian SL is a signer saying FORGET NEVER[6] "(I'll) never forget" where the first person singular is implied, but not explicit, i.e. it is a zero anaphor. Different languages make use of different coding points on the scale, but the scale itself is considered universal. Where different topics are placed on this scale, pertains to both the distance to the last clause where the topic participant was a topic, and the possibility of ambiguity in the discourse context. The larger the number of participants that could potentially be the object of

[6] Example from P-TO1_KOK.eaf (BT:00:09:03.499-ET:00:09:04.357). (Ferrara, L., & Bø, V. (2015 (collection date)). *A pilot corpus of Norwegian Sign Language. Unpublished video recordings and annotation files*.

the same referring expression, the more likely it is that language users mark the topic as more discontinuous, i.e. use a more explicit referring expression (Givón, 1983b, p. 56).

Givón notes that prior works on switch reference were focused on subject switch, and that this practice is not wrong 'per se' because: "… the main vehicle of topic continuity in language is indeed the subject — or "main clausal topic" (Givón, 1983b, p. 68). It should be noted that Givón's (1983a, 1983b) definition of topic, or 'main clausal topic', as a non-discrete category, is in contrast with the traditional term of subject. The arguments of a predicate have in traditional grammars been called subject and object, based on the case marking found in nominative-accusative languages, and commonly seen in Indo-European languages. The grammatical relations of subject and object have often been treated as universal, as linguistic primitives that can be applied to any and every language (Van Valin & LaPolla, 1997, p. 273).

Givón considered a switch in subject to be the functionally most important type of topic discontinuity, as: "…the main vehicle of topic continuity in language is indeed the subject — or "main clausal topic."" (Givón, 1983b, p. 68). Still, Givón pointed out that a narrow view on switch reference could make linguists overlook important generalizations, due to disregarding important aspects of function and structure (Givón, 1983b, p. 1). Thus, Givón championed a functional approach to switch reference, and noted that it was desirable to define switch reference in a broader sense, "at least on occasion" (Givón, 1983b, p. 52) so that one could look at the phenomena in a wider sense, both synchronically and diachronically. As mentioned in section 1.1, this thesis looks at switch reference in a broader sense, by including all referents of CA, and not only subject referents.

4.3 ARIEL

Ariel (1991) argues that the choice between different referring expressions is determined by the accessibility of the referent, establishing a hierarchy of accessibility markers. On this hierarchy, (human) referents with the lowest accessibility are referred to with names, while demonstratives, pronouns and zero anaphora, in that order, are on the higher end of the accessibility scale. Zeros are thereby the highest accessibility markers, and are a way for language users to mark the referent as easily retrievable to their addressee. Referents that are less accessible to the addressee can be referents that have not been mentioned yet, or a referent that is re-mentioned after other referents have been mentioned in the interim (Ariel, 1991, pp. 444-445).

For less accessible referents, language users utilize markers that provide more lexical information, use more uniquely referring expressions, and forms that are more attenuated, i.e. phonologically heavier, for example longer. The degree of accessibility is thus the deciding factor between the choice of full NPs vs. pronouns, and pronouns vs. zeros. (Ariel, 1991, p. 449). Factors that affect accessibility of 'old' referents (previous mentions, given information) are the distance since the last mention, how prominent the referent is in the discourse, and the number of other referents that the referring expression could refer to. Especially prominent referents are e.g. the topics of the discourse, the interlocutors in the conversation, and important parts of the interlocutors' lives. The longer the distance, the less prominent, and the larger the number of referents that could be referenced by the same referring expression, the less accessible the referent is (Ariel, 1991, p. 445).

4.4 OPERATIONALIZATION OF THE ACCESSIBILITY OF REFERENTS

Research on the accessibility of referents can be operationalized in different ways. One way is to look at the accessibility of referents in the sense of given (old) referents vs. new referents, following Chafe (1976). Another way is to consider switch reference in the sense of referent continuity vs. discontinuity, in the sense of Givón (1983b). This can be done by looking at co-reference and switch reference in entire thematic paragraphs, or by looking back a certain number of clauses. As co-reference with the immediately preceding clause is considered maximally co-referential (Givón, 1983a), one way to operationalize the accessibility of referents is to look at co-reference vs. switch reference only in the sense of local co-reference, following the research of Hickmann and Hendriks (1999). This is the operationalization used in this thesis. A clear description of this operationalization is provided by Debreslioska, Özyürek, Gullberg and Perniss (2013):

> "An operationalization of the accessibility of referents is local coreference, which is defined by whether a protagonist is referred in two consecutive utterances or not (Hickmann & Hendriks, 1999). If this is the case, the referent is considered to be highly accessible; it is maintained from one utterance to the next. If this is not the case, the referent is still accessible but to a lesser degree and must be reintroduced."
> (Debreslioska et al., 2013, p. 433).

In other words, this thesis will consider switch reference in the sense of referents that are maximally co-referential referents vs. returning referents vs. introduced referents (most difficult to process), following Givón (1983a). Maximally coreferential referents are referents that are maintained from the previous clause, and are henceforth called maintained referents. Returning referents are referents that have previously been mentioned in the retelling or conversation, but not mentioned in the previous clause. In that sense they are still accessible, but less so than the referents that are maximally co-referential. These less accessible referents will be called reintroduced referents. Introduced referents are referents that have not been mentioned previously in the retelling or conversation, and are thereby new mentions, sometimes called first mentions.

Based on the givenness of referents, the referential hierarchy, and other factors that have been mentioned pertaining referent retrieval (Ariel, 1991; Chafe, 1976; Givón, 1983a, 1983b), less explicit forms, i.e. phonologically leaner forms, are expected as framing in co-reference/maintained contexts (i.e. zero, or pronominal pointing as framing), and more explicit forms are expected as framing in switch reference/reintroduced contexts (i.e. framing with nouns), as evident from the hypothesis explicated in section 1.2. Another important aspect of the operationalization of switch reference research, is which grammatical category is chosen for analysis. As mentioned, the field of switch reference has historically been focused on subject switch, often with the term subject used in its traditional sense (Givón, 1983b). Subjects referred to by subject nouns or pronouns have been the standard choice of referents for switch reference analysis, but as the next section will point out, the choice of subjects as the focused referents in a study on the accessibility of referents is not an unproblematic choice for all languages.

4.5 "SUBJECT" PRESENCE

The study of Cormier et al. (2013b) examines framing of constructed action in regard to subject switch. The concept of subject in switch reference has been given great importance in traditional linguistics, as well as by Givón (1983b), and Cormier et al. (2013b). Defining subjects as actors in the sense of Role and Reference Grammar (Van Valin & LaPolla, 1997), the concept of subject in the study of Cormier et al. (2013b) differs from both the traditional concept of subject, as well as Givón's concept of 'main clausal topic' (Givón, 1983b). Role and Reference Grammar (RRG) assumes two semantic macroroles, *actor* and *undergoer*. These two roles are generalizations over the classical thematic roles. Actor is a generalization

of (among others) the thematic roles agent, experiencer, and instrument. The prototypical role for actor is agent, and the prototypical role for undergoer is patient (Van Valin, 2004, p. 1). Agent and patient are explained as: "Agents are willful, controlling, instigating participants in states of affairs, while patients are strongly affected participants." (Van Valin, 2004, p. 6).

RRG states that the grammatical relations subject and object are not universal, in the sense postulated by traditional grammars (Van Valin & LaPolla, 1997, p. 273). In order to say that a language has these categories, they need to be established through analysis of whether the language has what is called a "… *restricted neutralization* of semantic or pragmatic relations for syntactic purposes." (Van Valin & LaPolla, 1997, p. 274). Neutralization of semantic roles is when semantic roles are treated the same by the syntax in certain constructions. This neutralization is restricted if it only applies to some, but not all, thematic roles. Van Valin and LaPolla (1997, p. 251) presents the example of a) John kills the ducklings vs. b) the ducklings are killed by John. In a), the verb agrees with the grammatical subject, which is John, and who is also the actor. In b) the verb agrees with the grammatical subject, the ducklings, which is the undergoer. I.e. the verb agrees with the grammatical subject, regardless if this subject is an actor or an undergoer, which is a neutralization of semantic roles. This neutralization is restricted, as the verb does not agree with other thematic roles, only actors and undergoers (Van Valin & LaPolla, 1997, p. 251).

If a grammatical phenomenon can be described using only semantic and/or pragmatic relations, such as the semantic relation actor vs. undergoer, then it is not considered a grammatical relation by RRG (Van Valin & LaPolla, 1997, p. 274). In addition, the restrictions and neutralizations may differ from language to language, and from construction to construction. There is therefore no universal category of subject that has the same meaning cross-linguistically. For Norwegian SL, there have been no studies of whether there is a restricted neutralization of semantic roles for syntactic purposes, and Norwegian SL has not been investigated for coding and behavioral properties, as first proposed by Keenan (1976). Coding and behavioral properties are known to show whether a language has grammatical relations by the definitions of RRG. Coding properties include position, case marking and verb agreement of NPs, while behavioral properties include deletion and movement, among others (Keenan, 1976, p. 324).

According to the actor-undergoer hierarchy of RRG, if a clause has two arguments, the most agentive is labeled the actor. The most unmarked choice for actor is agent, and the most

unmarked choice for undergoer is patient, but less prototypical and more marked choices exist. For example, the semantic role of experiencer might be an actor in some clauses and the undergoer in others, depending on the presence or absence of a more agentive semantic role as an argument in the transitive clause (Van Valin, 2004, p. 2; Van Valin & LaPolla, 1997, p. 146). The actor-undergoer hierarchy in RRG is visualized in figure 15 below.

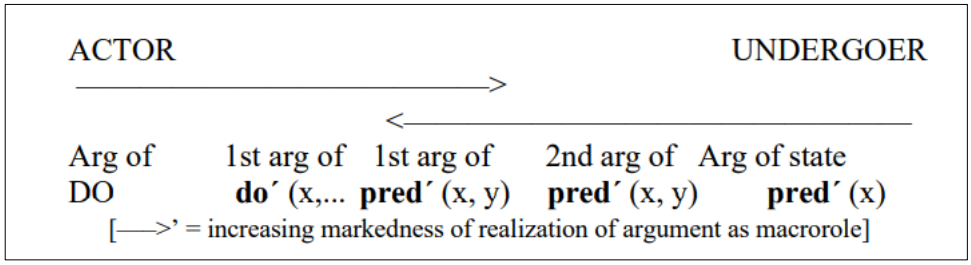

Figure 15:. The actor-undergoer hierarchy in RRG, showing how the macroroles of actor and undergoer are on a scale of markedness, and may overlap on the central part of the scale. Figure retrieved from: Van Valin (2004, p. 7).

As mentioned, the macrorole of actor is used as the definition of subject in the study of Cormier et al. (2013b), while the Norwegian SL corpus has not yet been tagged for subject status in the sense of RRG or otherwise. In addition, the embodied nature of CA can enable signers to encode two referents simultaneously, through body partitioning (Dudis, 2004), as mentioned in section 3.3. The referent that is profiled in the event of body partitioning need not be the actor, as shown in figure 12: The referent of the CA is the boy in the Frog Story, while the 'doer' of the action, the mole who is biting the boy, is referenced by a depicting sign. In this way, body partitioning can be used to profile the less agentive participant. Additionally, CA seems to be a way for signers to profile the patient also when there is no body partitioning, through the use of CA as an agent defocusing construction (Nordlund, 2019; Rankin, 2013), as mentioned in section 3.8.

In other words, one cannot assume that the referent of an instance of CA is an actor. CA of an actor may perhaps be the unmarked choice, but is not the only choice with CA predicates functioning as/similarly to transitive verbs through body partitioning, where the referent of the CA may appear like an undergoer with experiencer-like qualities (again: see figure 12), or in some instances where CA is used as an agent defocusing strategy by profiling the patient. There may be other contexts not yet discovered, where the referent of the CA is an undergoer. In order to analyze the framing of CA in relation to subject switch, there would need to be a prerequisite analysis of how subject status in Norwegian Sign Language should be defined, and whether the referents of CA that are profiled undergoers should be included in such an

analysis, and if so, how. If the referents of CA are tagged for subject status in the sense of RRG, with subjects in the role of actor, an analysis of framing in co-reference and switch reference in the sense of subject switch should be mindful of the different language functions that CA may be used to express. Due to the reasons noted in this section, I have chosen to include all referents of CA, regardless of whether they would be considered actors or undergoers. The referent of CA here refers to the person or entity that is being enacted.

The next chapter is a literature review on previous research regarding reference in both signed and spoken languages. In order to differentiate between studies that have defined subject in the traditional sense, and studies which have used the term in the sense of the macrorole of actor in RRG, 'subject' with apostrophes will for the rest of the thesis refer to referents in the RRG macrorole actor, while subject without apostrophes will refer to subject according to the traditional definition.

5 PREVIOUS RESEARCH

This section will present previous research on reference strategies in SLs, as well as relevant research on SpLs. The section will also present research on the framing of quotations in SpLs, and the framing of constructed action in SLs. First, the topic of anaphoric reference and pro-drop in SLs will be presented, followed by factors known to affect overt reference in both SLs and SpLs. Further, research on how the referencing strategies of signers relate to the cognitive accessibility of referents, whether they are new, reintroduced or maintained, will be presented. This research will be followed by research on the framing of quotations and constructed action.

The research on framing of quotations in SpLs will be presented before the research on framing of constructed action in SLs, as the research on SpL quotations has served as background for much of the research on framing in SLs. In the discussion section of the thesis, the different factors that have been found to affect overt arguments and/or framing in other SLs as well as in SpLs, will be discussed in regard to the findings of this study. The parts regarding SpL research in the following literature review are not meant as a comprehensive overview of all research that has been done on the topic in SpLs. Rather, some studies have been picked out to frame the literature on SLs in a larger context, and to point out factors that may affect referencing and framing cross-linguistically.

5.1 REFERENCING STRATEGIES

5.1.1 Anaphoric reference and pro-drop in sign languages

Research on different SLs have shown cross-linguistic similarities in how signers carry out the act of reference. An integral part of reference in SLs, is signers' use of the space around them, the signing space. Referring expressions such as manual signs for nouns can be located in the space around the signer by placing or directing the sign in a certain direction. Pointing signs are also often directed to locations in the signing space. This is also a way for signers to maintain reference anaphorically by referring back to earlier placed locations. In addition to directing manual signs, maintaining reference anaphorically can also be done through the use of gaze and shifting of the body (Ferrara et al., accepted; Frederiksen & Mayberry, 2016; Hodge et al., 2019; Pizzuto, Rossini, Sallandre, & Wilkinson, 2008; Swabey, 2011).

Sign languages have further been found to allow for null arguments (Engberg-Pedersen, 2002; Jantunen, 2008; Johnston, 2019b; Lillo-Martin, 1991), sometimes called pro-drop. Pro-drop languages, also referred to as null argument or null subject languages, are languages where pronouns may be omitted when they can be inferred from context (see e.g. Flores-Ferrán, 2007; Huang, 1984). One type of pro-drop is the kind found with languages that allow for the omission of pronouns, but also has agreement morphology on verbs, like Spanish (Flores-Ferrán, 2007). In languages such as Chinese, the grammar allows for the omission of pronouns, but the language does not have agreement morphology on verbs. In Chinese, discourse and pragmatical factors are the strongest indicators of who or what the null refers to, and it is therefore termed a discourse-oriented language (Huang, 1984, p. 540).

While non-pro-drop languages tend to use overt pronouns as a way to mark higher accessibility, pro-drop languages tend to mark higher accessibility by the use of null pronouns/zero anaphora. Overt pronouns may be used in pro-drop languages as well, but tend to be used for pragmatic marking such as marking for contrast or similarity between different referents, establishing topics and topic shift, and discourse-sensitive factors such as needing to clearly identify referents and express focal information (Azar, Backus, & Özyürek, 2018, p. 3; Silva-Corvalán, 1994, pp. 148-149). Lillo-Martin (1991), using a formalist approach, found null arguments with plain verbs in ASL, i.e. verbs that are not morphologically or spatially modified. Lillo-Martin (1991, p. 87) thus argued that ASL has null arguments similar to those found in Chinese, Japanese and Korean. Similarly, Engberg-Pedersen (2002, p. 29), using a functionalist approach, found that Danish Sign Language has instances of zero anaphora where the reference can only be determined pragmatically.

Formalist analyses have further analyzed the omission of arguments with so-called agreement verbs (as mentioned in section 2.3) as pro-drop, similar to the pro-drop found in Spanish (see e.g. Kimmelman, 2018 for Russian Sign Language; Lillo-Martin, 1991 for ASL), but this has been contested in functionalist approaches. Johnston (2019a) in the "Auslan Corpus Annotation Guidelines" does not consider indicating verbs to instantiate agreement morphology, but states that arguments in Auslan are often not overtly expressed. The arguments may be covertly expressed, for example in simultaneous constructed action, through spatial verb modification of indicating signs, or through handshapes in depicting signs (Johnston, 2019a, p. 88). Research also indicates that arguments that are not overt, need not be covertly expressed for the clause to be well-formed in Auslan, as they are understood from context (Johnston, 2019a, p. 88; 2019b, p. 982). Functionalist researchers have also

found that arguments are frequently omitted in several SLs (see e.g. Engberg-Pedersen, 2002 for Danish Sign Language; Jantunen, 2008 for Finnish Sign Language; Johnston, 2019b for Auslan).

5.1.2 Factors found to constrain overt reference in spoken languages

Several factors that constrain the use of overt referring expressions in SpLs have created a basis for research on which contexts signers use overt referring expressions vs. null, and which expressions are likely to occur in different contexts. In particular, there has been a preponderance of research on different varieties of Spanish. This research has shown that a switch in reference is a strong indicator of when speakers of Spanish use overt expressions of reference (Flores-Ferrán, 2004, 2007). For example, Flores-Ferrán (2004) found that a switch in subject reference conditioned the use of subject personal pronouns in Spanish, in the sense that when there was no switch in reference, speakers often favored null pronouns. Conversely, the probability of speakers using an overt pronoun was stronger in switch reference (Flores-Ferrán, 2004, p. 63).

Flores-Ferrán (2007, p. 625) reviewed research on variable subject presence in Spanish through the previous thirty years, and noted that speakers of Spanish prefer to not overtly express pronouns, but that first person singular pronouns are more likely to be overtly expressed than other pronouns. Other factors that are found to affect overt pronominal reference of subjects in Spanish is that of discourse connectedness, i.e. the distance between a verb and its subject, as well as the semantic type of verb, with verbs of thinking or other mental activities, verbs of communication, as well as stative verbs and intransitive verbs being more likely to have an overt subject pronoun (Flores-Ferrán, 2007, pp. 633-634). Discourse-pragmatic factors such as whether or not the pronoun is the topic of the clause, or whether it is in contrast with another referent in the clause, have been shown to make explicit reference more likely (Flores-Ferrán, 2007, p. 637).

The specificity of the pronoun has also been shown to affect overt reference. That is: Whether it refers uniquely to one or more individuals, or whether it is used in a generic form, in the meaning of “anyone” or similar. Further, the specific distribution seems to be dependent on the language variety, such as different dialects patterning differently (Cameron, 1992, p. 170; Flores-Ferrán, 2007, p. 638). Sociolinguistic factors such as gender, age and education have been found to affect variable subject presence in Spanish (Flores-Ferrán, 2007, p. 642). In addition, language contact with another language or language variety with a higher degree of

overt subject personal pronouns, has also been hypothesized to affect speakers' degree of overt pronoun use. The degree of effect from language contact is debated, due to difficulties of defining what constitutes contact, and how to define degree of exposure (Flores-Ferrán, 2007, p. 644). Other known factors that affect variable subject presence are those of genre and style, with certain types of narratives being shown to have a higher degree of overt reference than others (Flores-Ferrán, 2007, p. 642).

Research on the use of overt pronouns vs. zero anaphora in spoken languages where zero anaphora are used for highly accessible referents, might give some further indication about which contexts overt reference can be expected cross-linguistically in other null argument languages, such as SLs. One language which favors zero anaphora is spoken Turkish, where it has been found that null pronouns were used more than overt pronouns in maintained contexts, and full NPs were used over overt pronouns in reintroduced contexts (Azar et al., 2018, p. 13). Yet, the discourse context, i.e. whether or not the referent was in a maintained or reintroduced context was not found to be strongly associated with the choice of overt vs. null pronoun in Turkish. Rather, the use of overt pronouns seemed linked to pragmatically marked contexts: "… the contexts that signal similarity or contrast between referents or the actions related to them." (Azar et al., 2018, p. 11). In pragmatically marked contexts, speakers used overt pronouns more than in unmarked contexts. In maintained, unmarked contexts, overt pronouns were only used 3% of the time (null pronouns 97% of the time), while in maintained, marked contexts, overt pronouns were used 48% of the time (Azar et al., 2018, p. 12).

To summarize, the factor that has been found to be the greatest indicator of when subject arguments are overtly expressed in Spanish, is that of switch reference. In addition, the person and number of pronouns, discourse connectedness, the semantic type of verb, whether the pronoun is a topic, specific vs. generic, the degree of language contact, and sociolinguistic factors such as age, gender and social class have been found to constrain variation of overt subjects in Spanish (Flores-Ferrán, 2007). There is further evidence that whether a context is pragmatically marked is a factor which affects the use of overt vs. null pronouns in Turkish, which is a language that favors zero anaphora for highly accessible referents (Azar et al., 2018). Perhaps similar factors are evident in Norwegian SL or other SLs, i.e. that a variation in pronominal pointing vs. zero in SLs may be affected by whether or not the context of utterance is pragmatically marked. If so, this could also affect the framing of CA, regarding the use of pointing vs. zero to frame CA.

5.1.3 Variable subject presence in switch reference – Sign languages

A few studies have looked at how the omission of arguments in SLs is related to switch reference, based on earlier research on SpLs (among the SpL studies: Cameron, 1992; and later Flores-Ferrán, 2007). Wulf, Dudis, Bayley and Lucas (2002) studied how expression of subject pronouns with plain verbs, i.e. verbs without morphological modification, varied according to switch reference in ASL, using data from sociolinguistic interviews and conversations between signers. This thesis uses the term 'pronominal pointing' instead of pronouns, a term which is further defined in section 6.3.3, but will here use the terms used by the original authors.

The Wulf et al. (2002) study reported that co-reference with the subject in the preceding clause was more likely to cause subject omission, while manual pronominal subjects occurred more often in switch reference environments (Wulf et al., 2002, pp. 68-69). It may be noted that the concept of subject in their study is the term in a traditional sense, not otherwise explicitly defined. Other statistically significant factors were influence from English, the person and number of pronouns, the use of constructed action, and the age and gender of the signers (Wulf et al., 2002, p. 67). More specifically, Wulf et al. (2002) found that pronouns for subjects were disfavored in clauses containing constructed action, compared to clauses without constructed action. They also found that first person pronouns were more likely to be expressed than third person pronouns in general (Wulf et al., 2002, p. 69).

Contexts that were highly influenced by English favored the presence of pronouns, and English influence constrained variation the most, but with an unbalanced distribution across signers (Wulf et al., 2002, p. 68). The concept of language contact was operationalized to whether or not the signer used e.g. English word order and fingerspelling "in the immediate environment of the target variable" (Wulf et al., 2002, p. 72), i.e. in a localized context rather than a global one. Wulf et al. (2002, p. 70) found that women favored overt pronouns compared to men, and that older signers were more likely to use overt pronouns than the middle aged and younger group. The authors noted that the differences in the use of overt pronouns by age may be due to changing education policies regarding the use of sign language in education over the years (Wulf et al., 2002, p. 71).

McKee, Schembri, McKee and Johnston (2011) studied variable 'subject' presence in two sign languages, Auslan and New Zealand Sign Language (NZSL), which are two closely related languages. Their data consisted of spontaneous narratives occurring in conversations,

as well as interviews. McKee et al. (2011) found that: “Our results show that continuity of subject reference between contiguous clauses has the strongest effect on the absence of expressed subject arguments in both NZSL and Auslan.” (McKee et al., 2011, p. 388). In other words, they found that a switch in reference was the greatest indicator of expressed ‘subject’ arguments, using a definition of ‘subject’ as actor in the sense of RRG (McKee et al., 2011, p. 380). Null ‘subject’ expression was found to be more common than overt ‘subject’ expression, with a stronger tendency in the Auslan data than the NZSL data. For Auslan, the semantic type of verb and the animacy of the ‘subject’ was added to the analysis, but did not reach significance (McKee et al., 2011, p. 386).

The factors that reached significance in the Auslan data other than co-reference, were (in descending order) person and number, English influence, verb type and the use of constructed action (McKee et al., 2011, p. 387). First person singular favored overt ‘subject’, while third person, second person and first person plural did not. English influence on the structure of a target sentence also favored overt ‘subjects’ (McKee et al., 2011, p. 389). For NZSL, the significant factors other than co-reference were (in descending order) age and ethnicity, genre, verb type and the use of constructed action. Person and number did not reach significance in the NZSL data (McKee et al., 2011, p. 387). English influence was not coded for in the NZSL data, and thus not quantified. Concerning verb type, this was considered in the sense of spatial modification of verbs, with plain verbs being slightly more likely to have an overt ‘subject’ than spatially modified verbs in Auslan and NZSL (McKee et al., 2011, pp. 390-391).

In both languages, clauses without constructed action favored ‘subject’ expression, albeit weakly, while the presence of constructed action in the clause disfavored overt ‘subject’ presence (McKee et al., 2011, p. 391). The sociological factors of age and gender were part of the analysis for both languages, while language background was added for Auslan and ethnicity (native groups vs. non-natives) was added for NZSL. Ethnicity and age was shown to have a slight significance in NZSL, but in all, sociological factors such as age, gender and language background were found to have only minor effects on variable ‘subject’ presence in both Auslan and NZSL (McKee et al., 2011, p. 392).

Summarizing, the linguistic factors such as morphological and syntactic properties of verbs were not found to be as significant for overt ‘subject’ presence as whether or not the ‘subject’ was continuous, i.e. co-referential with the ‘subject’ of the previous clause. As in the Wulf et al. (2002) study of ASL, whether or not there was overt expression, was strongly motivated

by the degree of pragmatic recoverability of the co-referential omitted 'subject' (McKee et al., 2011, p. 393).

5.1.4 Referencing strategies in sign languages and cognitive accessibility

In addition to the work on subject presence by Wulf et al. (2002) and McKee et al. (2011), cross-linguistic research on referencing strategies in SLs in general shows that the cognitive accessibility of referents affect signers' chosen referring expressions. More conventionalized and longer forms of referring expressions are used for referents that are new or reintroduced, for example lexical signs, and less conventional and less attenuated forms are used for referents in maintained contexts, for example zero anaphora (Frederiksen & Mayberry, 2016; Hodge et al., 2019; Perniss & Özyürek, 2014; Swabey, 2011), as expected from the work of Chafe (1976), Givón (1983b) and Ariel (1991).

Much of the research on general referencing strategies in SLs has focused on elicited data, from narratives or other elicitation tasks (among them: Engberg-Pedersen, 1993; Ferrara et al., accepted; Frederiksen & Mayberry, 2016; Garcia & Sallandre, 2020; Hodge et al., 2019; Pizzuto et al., 2008; Swabey, 2011) and sometimes with data from only two or three signers (e.g. Pizzuto et al., 2008; Swabey, 2011). Some studies have also grouped together different types of signs, for example grouping nouns with pronominal pointing (Cormier et al., 2013b; Pizzuto et al., 2008), or grouping constructed action with depicting signs (Pizzuto et al., 2008), which may obscure the differences between the categories. Garcia and Sallandre (2020, p. 3) note that traditional categories for doing reference in SpLs have been the most researched in SLs as well, i.e. nouns and pronouns.

Newer research has sought to look at each referential category separately. As the first large-scale study of referencing strategies in a signed language, using corpora, the study of referencing strategies in Auslan by Hodge et al. (2019) will be given special attention, as well as the yet unpublished study by Ferrara, Anible, Hodge, Jantunen, Leeson, Mesch & Nilsson (accepted), who use Hodge et al. (2019) as the basis of their cross-linguistic research on Auslan, Irish SL, Finnish SL, Swedish SL and Norwegian SL.

5.1.5 Hodge, Ferrara & Anible (2019)

Hodge et al. (2019) found that the first mention of a referent is phonologically heavier than the expression of referents in reintroduced or maintained contexts in Auslan. Phonological heaviness was considered in the sense of the number of semiotic strategies used on average to

express a referent, and introduced referents were expressed with the highest number of semiotic strategies. Hodge et al. (2019) also found that the animacy of the referents had a significant effect on which reference strategies were used, with the lowest number of strategies used for human referents, the largest number of strategies for inanimate referents, with animal referents between the two (Hodge et al., 2019, p. 42). Conventional strategies such as lexical signs, fingerspelling or mouthings (see section 2.3) were often used to introduce new referents, often in combination with less conventional strategies, and regardless of animacy. Animate referents, both humans and animals, were often maintained and reintroduced through visible and invisible surrogates (see section 3.7). Once animate referents are introduced, lexical signs and pointing are not typical when referring to them again, but mouthings may still occur, as they can be used simultaneously with manual activity (Hodge et al., 2019, p. 46).

Signers used a greater number of strategies to introduce new referents compared to reintroduced and maintained referents. Maintained referents were expressed with the lowest number of strategies. One of the strategies used across all activation statuses (new, reintroduced and maintained contexts) was depiction, which can be highly informative as signers depict (show) the actions they want to express. Using depiction as a strategy for reintroduced and maintained referents means that newer referents are not necessarily expressed more informatively than referents with other activation statuses (Hodge et al., 2019, p. 47). Hodge et al. (2019, p. 47) found that invisible surrogates were used prevalently by signers as a way of doing reference. Frederiksen and Mayberry (2016, p. 55) distinguished zero anaphora from lexical signs from the kind of zero anaphora found with constructed action and agreement verbs (here: indicating verbs), but did not touch on invisible surrogates directly. Hodge et al. (2019) question whether including invisible surrogates in future studies might challenge the earlier view of pro-drop and zero anaphora in both spoken and sign language research, as there is a difference between inferring from something that is ‘zero’ vs. something that is ‘invisible’:

> “ … inferring from ‘invisible’ (in which a chunk of space becomes semiotically activated via the coordination of one or more ostensive indexical acts) is different to inferring from ‘zero’ (where it is the absence of ostensive acts that enables interactants to mentally keep track of who does what to whom, …” (Hodge et al., 2019, p. 48).

Further, pointing actions in the Hodge et al. (2019) study were limited in number, and mainly used to introduce human referents. They comment that this suggests that in addition to the influence of activation status, there is a humanness factor which influences pointing as a strategy (Hodge et al., 2019, p. 48). Discourse topicality and genre are other factors which were found to have an effect on the introduction of referents, for example introducing a referent at an especially climactic part of a story (Hodge et al., 2019, p. 50). Referents can also be given different degrees of agency, regardless of their original animacy, for example through the use of constructed action to anthropomorphize animals or inanimate objects. Hodge et al. (2019, p. 49) further comment that it is uncertain how animacy would affect the referencing choices if a story's main character was a plant, instead of human. They expected that data from conversations would give indications of which aspects are due to discourse topicality and other aspects of narrative expression (Hodge et al., 2019, p. 50).

5.1.6 Ferrara, Anible, Hodge, Jantunen, Leeson, Mesch & Nilsson (accepted)

Ferrara et al. (accepted) found several similarities regarding referencing practices across five SLs: Irish SL, Auslan, Finnish SL, Swedish SL and Norwegian SL. New referents were typically introduced with conventional forms, such as lexical signs and mouthings in all the SLs. Maintained and reintroduced referents were referred to with strategies that are less conventionalized. Constructed action is the preferred choice for referring to animate referents, while inanimate referents are preferably depicted or indexed (Ferrara et al., accepted), which mirrors the findings of Hodge et al. (2019). Ferrara et al. (accepted) further showed that especially animate referents in a maintained context are likely to be referenced through the use of constructed action.

The main difference in referencing between the different SLs is that fingerspelling is more common across activation statuses in Auslan and Irish SL than in the Scandinavian SLs, where signers choose other strategies. Fingerspelling was especially uncommon as a reference strategy in Norwegian SL (Ferrara et al., accepted), but another study by Ferrara, Anible and Kalvenes Anda (accepted-b) shows that signers of Norwegian SL do fingerspell, but rather infrequently and mainly for proper nouns such as the names of people and places. How depicting signs are distributed across activation statuses was also found to vary between the different sign languages. Auslan signers prefer using depicting signs in maintenance contexts, Finnish signers prefer using them in reintroductions, while in Norwegian Sign Language,

Swedish Sign Language and Irish Sign Language, signers distribute depicting signs more equally across activation statuses (Ferrara et al., accepted).

Ferrara et al. (accepted) found that the best explanation for the patterning of the data, was a two-way distinction between new referents vs. maintained and reintroduced referents, and human and animal referents vs. inanimate referents. This claim was stronger for Auslan, Swedish SL and Irish SL, than for Finnish SL and Norwegian SL. For Norwegian SL, the data did not quite reach a distinction between new vs. maintained and reintroduced human and animal referents. Rather, there was found some degree of patterning for a human and animal vs. inanimate distinction in maintenance and reintroduction in Norwegian SL. Ferrara et al. (accepted) suggest that the differences reflect the different socio-historical contexts of the different SLs, and differences in how the SLs have evolved. Relating to this thesis, the findings from Ferrara et al. (accepted) suggest that referencing in maintenance and reintroduction contexts may show more referential similarities than e.g. referents that are reintroduced vs. new.

5.2 FRAMING

The next section will look into the framing of constructed action in SLs, and the related phenomena known as quotations, constructed dialogue or demonstrations in SpL research. The research on the framing of spoken language quotations has been used as a backdrop for research on the framing of constructed action in sign languages, and will therefore be presented first.

5.2.1 Framing of spoken language quotations

Tannen (1986) noted that speakers do not simply report the speech of others, but rather reconstruct what they remember into constructed dialogue. Speakers of SpLs are shown to not only quote utterances in discourse, but may also quote actions, thoughts, or feelings; through a combination of words, gestures, or non-lexical sounds (Clark & Gerrig, 1990, p. 769). Clark and Gerrig (1990, p. 764) therefore consider quotations to be better described as demonstrations. Cameron (1998), who investigated the framing of quotations in Spanish, commented on the use of gestures in the data material, but as no video recording had been done, the use of gestures was not fully quantified. Later research using video material has shown that speakers can reconstruct the body orientation and gaze of participants in an event,

as well as gestures to signify their actions, and reenactments of non-linguistic sounds (Kendon, 2014; Sidnell, 2006).

Tannen (1986), in her analysis of the introduction of constructed dialogue (CD) in English and modern Greek, found that the most common way to introduce CD was through different forms of the verb "say", while other verbs of saying were also used. When the speakers did not use a verb of saying to introduce the CD, the second most common strategy was to not use any introducers, i.e. unframed CD. 26% of the CD in conversational English were unframed, and 22% of the CD in conversational Greek (Tannen, 1986, p. 318). When CD was unframed, the speakers were found to "role play" the different characters in by changing their voices to match e.g. the character's pitch, voice quality and prosody (Tannen, 1986, p. 319).

Other research on spoken languages (see e.g. Cameron, 1998 for Spanish; Clark & Gerrig, 1990 for English), has shown further that quotations may be framed in different ways: Prosodically, using changes of voice or gestures; using quotative verbs such as "say" or "tell" or "be like" in English; or zero quotatives, where there is no quotative verb or nominal to identify who the quote is referring to (Cameron, 1998; Clark & Gerrig, 1990; Mathis & Yule, 1994). Partially framed quotations, that is quotations framed with a bare noun, i.e. an unmodified noun without a quotative verb, have been described for Spanish (Cameron, 1998, p. 49). Following is an example from English containing both a quotative verb and a zero quotative (the zero quotative is signaled with Ø for zero):

> 'She's like: "So what time did you get in?"
>
> 'We got in like at two thirty. Ø: "Well I got home around a little after one."
>
> (Mathis & Yule, 1994, p. 64)

The research of Cameron (1998) on quotations in Spanish, sometimes called constructed dialogue, separated types of framing of quotations into three types: Those which contained a verb of report, with or without an accompanying pronoun or full noun; those which consisted of only a NP without a verb, either pronoun or full noun; and freestanding quotations, i.e. unframed quotations. When the quotation was embedded within constituents, such as a lexical verb followed by demonstration of said verb, only freestanding quotations were found (Cameron, 1998, p. 54). E.g. A lexical verb for crying, directly followed by a demonstration

of the sound of crying. In contrast, quotations embedded in subordinate clauses before a matrix clause were all framed, mostly with a verb of report (Cameron, 1998, p. 55). As such, the work of Cameron (1998) shows that embedding and clause types can affect the framing of quotations. Cameron (1998) further commented that freestanding quotations were equally common in English, which is not a pro-drop language, as in Spanish and modern Greek, which are pro-drop languages (Cameron, 1998, p. 57), following the work of Tannen (1986).

Clark and Gerrig (1990) also comment on the prevalence of freestanding quotations, especially in speech (also in English). They found several examples where the quote was embedded in the narrative sequence, but not embedded in a sentence (Clark & Gerrig, 1990, p. 772), which thereby makes the quotation unframed. For example this quote from the Svartvik & Quirk (1980) corpus: “she got up in the morning - 'tooth's not gone, there's no money'” (Clark & Gerrig, 1990, p. 772). Mathis and Yule (1994, p. 74) also found several instances of unframed quotations in American English, in contexts where a full quotative form was a possible choice. Cameron (1998) posited that freestanding quotations are a discourse strategy and/or a strategy of language use, rather than a function of pro-drop languages (Cameron, 1998, p. 58).

Person and number were also found to affect the variation of framing. First person was framed with only a noun or pronoun, i.e. without a quotative verb, 26% of the time (Cameron, 1998, p. 62), which mirrors the findings that first person pronouns in Spanish are more likely to be overt (Flores-Ferrán, 2007, p. 625). Third person was framed with only a NP 7% of the time (Cameron, 1998, p. 62). The most common strategy for both first and third person was with a verb of report, which in Cameron’s (1998) analysis occurred both with or without a NP. Cameron (1998) further found that a switch in reference favored framing by a NP, while maintained reference (‘same’ reference) favored freestanding quotations (Cameron, 1998, p. 65). It may be noted that the definition of switch reference used by Cameron (1998) excludes clauses where the previous clause was also a report of speech. Another factor which was found to have an impact is that of style, with bare NPs as framing being more common in more vernacular varieties (Cameron, 1998, p. 68). Factors such as age, gender and class were also found to constrain variation on the framing of quotations in Spanish used in Puerto Rico (Cameron, 1998, p. 75).

Much of the recent research on the framing of quotations in SpLs has been research on how youth frame quotations differently than older speakers of English and Spanish. For example

through the widespread use of "be like" by English-speaking youth, such as in "she was like …" to introduce quotations (see e.g. Davydova, 2019; Louro, 2013; Palacios Martinez, 2013). The use of zero quotatives by English-speaking and Spanish-speaking youth has also been an object of study, and it has been shown that the more involved the narrator becomes in their own story, i.e. the more dramatic the storytelling is presented, the more likely it is for zero quotatives to occur. The demonstration of non-linguistic content such as the imitation of non-linguistic sounds has also been found to favor zero quotatives (Palacios Martinez, 2013, pp. 457-458).

5.2.2 Framing of constructed action in sign languages

When Cormier et al. (2013b) published their article on framing of CA in British Sign Language, there had been no in-depth empirical studies of in which situations signers identified the referent of CA, how they did it, and whether it was done at all (Cormier et al., 2013b, p. 124). Previous articles on BSL and ASL presumed that CA relies on the referent being identified by a noun phrase as an antecedent, and that CA then could be used to maintain the referent through a stretch of discourse, without needing to be referenced again with another noun phrase (see Morgan, 2006, p. 319 for BSL; Reilly, 2000, pp. 424-425 for ASL). Studies on ASL and Danish Sign Language (DTS) have also remarked that direct quotes are often introduced by the naming of the quoted character (see Engberg-Pedersen, 1995 for DTS; Reilly, 2000 for ASL).

Quotative phrases commonly used in SpLs, such as "say" or "be like" on the other hand are often omitted (Emmorey, 2002, p. 66; Reilly, 2000). Reilly (2000, p. 428) notes that the quotative SAY is evident in narrative retellings by 5-year-old ASL signers, but was not found in the adult retellings of the same story. Emmorey (2002, p. 66) claimed that quotative noun phrases such as "(s)he said" were unnecessary with quotative uses of CA in ASL, as the direction of the eye gaze and the shifting of the head and/or body explicated the direction of the referent. Other researchers have observed that quotative SAY is optional (Liddell, 2003; Morgan, 2006), but Cormier et al. (2013b) note that this has not been studied empirically, and that it seems likely that such quotative verbs (in BSL) are fillers or placeholders such as English "like" and might be a borrowing. Quotative verbs have been noted with constructed dialogue, but it is uncertain whether it is possible to use quotative verbs with CA that is not constructed dialogue (Cormier et al., 2013b, p. 124).

Cormier et al. (2013b) found few pronominal points with CA in their analysis of framing of CA in BSL narratives. Only 9 out of 260 NPs with CA were pronominal points. The vast majority of NPs included a bare noun, i.e. a noun without modification and not accompanied by a quotative verb, showing that BSL signers tend to express referents quite explicitly when they do express referents (Cormier et al., 2013b, p. 132). 'Subject' presence was preferred with introduced referents (new mentions) and reintroduced referents. New mentions showed no 'subject' omission, while 12% subject omission was found with reintroduced referents. 'Subject' omission was preferred with maintained referents with 75% of the CA tokens (Cormier et al., 2013b, p. 134). This was taken as support of their hypothesis: "Overt subject presence will be preferred in switch reference contexts but subject omission will be preferred in contexts of co-reference with a previous clause – …" (Cormier et al., 2013b, p. 124). In 25% of the cases of maintenance signers did still explicitly identify the referent, which suggests that 'subject' omission in maintenance is not obligatory in BSL (2013b, p. 132).

Cormier et al. (2013b, p. 135) did not find support for 'subject' omission being preferred with reintroduced referents, and suggested that the referent accessibility is not high enough in reintroduced contexts to make 'subject' omission preferred. They write that 'subject' omission being preferred in maintenance, suggests that referent accessibility is high enough in this context (Cormier et al., 2013b, p. 135). In ASL, subject presence in maintenance contexts has been considered infelicitous (Emmorey & Reilly, 1998, p. 83). Cormier et al. (2013b) allow for possible linguistic differences between the two SLs, but due to the number of cross-linguistic similarities between the two SLs (and for CA in SLs in general) they note that there might be a need for more empirical evidence on how maintenance contexts affect subject presence with CA in ASL (Cormier et al., 2013b, p. 132).

In this section we have seen that a switch in reference is a strong indicator in several languages of when speakers and signers use explicit reference by both the use of pronouns and noun phrases. The following section will present the method of this thesis and the data material used to investigate the framing of CA in switch reference and co-reference in Norwegian SL, in order to examine whether a switch in reference is an indicator of signers' use of explicit reference in Norwegian SL.

6 METHOD

6.1 ABOUT THE CORPUS AND THE DATASETS

This study aims to investigate how signers of Norwegian Sign Language frame CA in elicited and conversational narratives. To do this, a subset of data from the Norwegian SL corpus was investigated. At the time of writing this master's thesis, the Norwegian SL corpus is a work in progress, and is currently comprised of four datasets. The project is led by Lindsay Ferrara at NTNU (Norwegian University of Science and Technology). Three of the datasets in the corpus include videos used as data material for this thesis. That the Norwegian SL corpus is a work in progress, means that the video files in the corpus are annotated to varying extents. It was necessary that a certain amount of basic annotation was completed before the author's own annotations, which restricted the number of possible video files that could be used in this study.

The datasets that were used are: Ferrara & Halvorsen (2021), which includes elicited narratives from four signers; Ferrara and Bø (2015 (collection date)) which is a pilot corpus study with seven older signers of Norwegian SL, and includes individual sessions with elicited narratives and conversations about elicited topics, as well as group conversations; and the Ferrara (in prep.) dataset, which is an ongoing project to study the various communication practices in the Norwegian deaf community. The project aims to gather a large sample of Norwegian SL interaction, and includes, but is not limited to, elicited narratives and free conversations (Ferrara, unpublished annotation guidelines, updated January 2022). The following section consists of a more specific overview of the data used for this thesis. First the data from the elicited narratives will be presented, and secondly the data used for the conversational narratives. It may be noted that sociolinguistic variables were not strictly controlled for in this thesis, but the sample was chosen with the aim of a fairly balanced dataset regarding age and gender.

6.2 DATA MATERIAL

6.2.1 Elicited narratives

The elicited narratives used for this master's thesis are ten video-recorded retellings of a children's picture book entitled "Frog, Where Are You?" by Mercer Mayer (1969). The story, often called "The Frog Story" centers on a boy and his dog, who lose their pet frog, and go on

a journey through the forest to find the frog. Along the way they encounter different animals and hazardous situations. The video-recordings of these retellings are from three different datasets, as mentioned in section 6.1. In the Ferrara and Halvorsen (2021) dataset, the signers are telling the story to the camera. In the Ferrara and Bø (2015 (collection date)) dataset and Ferrara (in prep.), signers are telling the story to another signer.

The videos of the Frog Stories range from 01:36 minutes to 06:33 minutes in length, with a total video length of 30:53 minutes. Nine of the participants are deaf[7] first language users of Norwegian SL, of which two learned Norwegian SL after attending deaf school (older signers). The tenth participant is a deaf late learner, i.e. someone who learned Norwegian SL between the ages 13 to 18. All participants consider Norwegian SL to be their primary language. The metadata for the participants in the Frog Stories is found in table 1 below.

Table 1 – Participant metadata: Frog Stories		Number
Gender	Women	5
	Men	5
Period of birth	1940s-1950s	5
	1970s-1990s	5
Age of acquisition	0-7	7
	8-12	2
	13-18	1
Parentage	Deaf parents	5
	Hearing parents	5
Geographical location	Eastern Norway (incl. Oslo)	5
	Bergen area	3
	Trondheim area	2

[7] All participants (in both genres of data) consider themselves to be Deaf, part of the cultural minority of signers in Norway.

6.2.2 Conversational narratives

The conversational narrative data include data from ten signers, from seven different conversations. All of the CA that occurred in these conversations were subject to analysis, and the concept of conversational narrative here includes each participant's contribution to the conversation as a whole. The conversational narratives range in theme from conversations about movies, vacations and travelling, childhood and education, as well as other diverse personal or other-experienced narrative content. The data is taken from two of the Norwegian SL corpus datasets, five of the conversational narratives are from Ferrara and Bø (2015 (collection date)) and five are from Ferrara (in prep.). The number of participants was chosen based on the number of participants in the Frog Stories, in order to have ten participants from each genre. Four of the participants for the conversational narratives are also Frog Story participants.

The five conversational narratives from the Ferrara and Bø (2015 (collection date)) dataset are all longer conversations with older signers, ranging from three to five interlocutors. The total amount of signing time for each participant in the sample is between 14:43 minutes and 18:55 minutes, with a total amount of signing time across the five participants at 1 hour and 24 minutes. The five conversational narratives from the Ferrara (in prep.) dataset are all shorter, dyadic conversations with younger signers. The amount of signing time for each signer is between 3 minutes and 6:20 minutes, with a signing time of 23 minutes across the five signers. The total amount of signing time across all ten participants in the conversational narratives is thus at 1 hour and 47 minutes.

All of the participants in the conversational narratives are deaf first language users of Norwegian SL, and all participants consider Norwegian SL to be their primary language. The metadata for the participants in the conversational narratives is found in table 2 below. In addition to balancing factors such as age and gender, the choice of participants for the conversational narratives was also heavily influenced by which conversation files were furthest along in primary annotation. Files with longer conversations would be preferable in order to include more data from the younger participants, but as the corpus is still in progress there were no longer conversations with sufficient annotations available.

Table 2 – Participant metadata: Conversational narratives		Number
Gender	Women	5
	Men	5
Period of birth	1940s-1950s	5
	1960s	1
	1970s-1990s	4
Age of acquisition	0-7	7
	8-12	3
Parentage	Deaf parents	3
	Hearing parents	7
Geographical location	Eastern Norway (incl. Oslo)	2
	Bergen area	1
	Trondheim area	6

6.2.3 Background for the choice of data

Earlier research on CA has often centered on elicited narratives. One important reason for this is that constructed action is exceedingly common in SL narratives (Emmorey, 2002, p. 65). In addition, elicited narratives provide reference continuity. The signers need to tell a story with the same referents long enough, in order to analyze how referents of CA are maintained and/or reintroduced, not only how they are introduced. Elicited narratives further enable easier comparison across signers, as well as ease in cross-linguistic comparisons, especially when signers are telling the same story (Pavlenko, 2008, p. 312).

While elicited narratives have their advantages, using only elicited narratives may obscure which factors of referent identification and framing are due to genre, and which factors are due to general framing practices. Including conversations from semi-naturalistic corpus data, and consequently also including more signers, is a step forward in the direction of more representative research on Norwegian SL. The inclusion of more than a few signers is important, as deaf communities are known to be highly heterogenous. SLs have few native users, in the sense of deaf signers born to deaf parents, and do not have written forms. Johnston and Schembri (2013, p. 2) write that this is why signers "…sometimes appear to

lack sets of shared linguistic norms that are often found in stable language communities, especially those with literacy and established standard varieties." In other words, elicited signing from only a few signers is not sufficient to establish the common language choices of an SL community, and cannot be said to be representative of everyday sign language (Fenlon, Schembri, Johnston, & Cormier, 2015, p. 2).

As the Norwegian SL community is small, and the data that is available is naturally contingent on the progress of the corpus project, there is necessarily a certain qualitative aspect to this research. However, the inclusion of data from conversations help make the data material more representative of naturalistic signing. Continuing to look at elicited narratives as well as spontaneously occurring conversational ones further enable comparison with earlier works done on other SLs, which have centered on elicited data (e.g. Cormier et al., 2013b). The combination of data allows a connection to past research, while at the same time acknowledging that analyses of more naturalistic language data is the future of SL research. Hopefully, future data collection, annotation and research will help further research on the subject of this thesis and further research on Norwegian SL in general. The next section of this thesis will go in further depth regarding how annotations are used and made in this study in order to investigate framing of CA in switch reference and co-reference.

6.3 ANNOTATION BACKGROUND

6.3.1 Annotation in ELAN

The corpus project for Norwegian SL uses the "Auslan Corpus Guidelines" (Johnston, 2019a) as the basis for annotation (Ferrara, unpublished annotation guidelines, updated January 2022). All videos are annotated using the program ELAN by the Max Planck Institute for Psycholinguistics (Crasborn & Sloetjes, 2008; *ELAN (Version 6.0) [Computer software]*, 2020). ELAN as a software allows for several tiers of annotations, time-aligned with the videos of the signers. Annotation of a SL by the use of ELAN means that the language content is transcribed on different tiers, thus allowing for simultaneous content. This is necessary for SL annotations, as different content can be expressed simultaneously on the left hand and the right hand, as well as on the face and other body parts. The Norwegian SL corpus is connected to the sign database Global Signbank (Crasborn, Bank, Stoop, Komen, Hulsbosch, & Even, 2020), where the Norwegian Signbank is being developed (Ferrara, 2021). This way of transcribing SLs by the use of ELAN and sign databases, make SL

corpora into true machine-readable corpora as the videos are annotated over time (Johnston, 2019a).

Before looking at which relevant annotations were done by others before the start of this thesis, and which annotations were done by the thesis author, the definitions of nouns and pronominal points as used in this thesis will be presented, as noun phrases and pronominal points have been distinguished from each other. In addition, an important aspect of the segmenting of the Norwegian SL corpus will be presented: The concept of clause-like utterances. Clause-like utterances are the basic utterance units in the Norwegian SL corpus, and is an alternative to the traditional concept of a clause. Framing of CA is considered as explicit identification *within* the same clause(-like utterance) as the CA, and therefore the definition of clause necessarily affects framing analysis.

6.3.2 Nouns and noun phrases

Grammatical class tagging of signs has not been undertaken for the Norwegian SL corpus. The definitions of nouns and pronominal points in this thesis follows the Auslan Corpus Guidelines (Johnston, 2019a). Nouns are defined as: "signs that name, identify or show entities" (Johnston, 2019a, p. 67). Nouns used by signers as framing in the data material of this thesis are often conventional, lexical signs such as BOY or DOG, or signs used for proper names. Nouns in this study also include any instances of fingerspelling that names and identifies an entity, and mouthings used by signers to name and identify entities, even without the use of manual signs. In other words, the identification of nouns is mainly based on the function, not the form. Readers are further referred back to section 2.3 on sign types for the definitions of fingerspelling and mouthings. A noun phrase in this study may also include other dependents, aligning with the general, cross-linguistic definition of a noun phrase. These dependents may be e.g. adjectival elements or pointing with determinative function. Pointing with determinative function is pointing immediately next to a noun that names a referent, when the referent is: "… known, assumed, or familiar, especially if it has already been mentioned in the text. It is like as a determiner." (Johnston, 2019a, p. 27).

6.3.3 Pronominal points

In this thesis the term 'pronominal point' is used instead of the term 'pronoun'. The definition used for pronominal points in this thesis is as following: "Points to a referent, i.e., the pointing action appears to primarily intend to identify a participant, not the location of the participant. It is thus like a pronoun (e.g. 'he', 'they')" (Johnston, 2019a, p. 27). The reason for the use of

the term pronominal point rather than pronoun, is due to the fusion of linguistic and gestural content in SLs, and discussion in SL literature on exactly how similar the pointing actions to denote referents in SLs are to pronouns in SpLs. Studies on pointing give an indication that pointing signs in SLs used to denote referents may be closer to the pointing actions used in co-speech gesture, rather than mirroring pronouns in SpLs (see e.g. Cormier, Schembri, & Woll, 2013a; as well as Johnston, 2013 for SLs; and Debreslioska, 2013 for co-speech gesture in SpLs).

However, research on British Sign Language has found indications that pointing to the self, and other-directed pointing, have more reduced and conventionalized forms in BSL than the co-speech gestures used by English-speaking non-signers. The pointing actions of signers are also more prosodically integrated in the structure of signing than the pointing actions seen in co-speech gestures (Fenlon, Cooperrider, Keane, Brentari, & Goldin-Meadow, 2019, p. 1; Hodge et al., 2019, p. 48). The term 'pronominal point' is thus used to clarify that these pointing actions are used to denote referents, and that they are prosodically integrated in the signing, but incorporate aspects of gesture in ways that are not reflected in SpL pronouns. It should further be clear to readers that are unfamiliar with SLs that any point may naturally have several functions at once, and this is the reason for the use of the word *primarily* in the above definition of pronominal points by Johnston (2019a). As stated in the Auslan guidelines: "every pointing sign appears to imply location is some way" (Johnston, 2019a, p. 25).

6.3.4 Clause-like utterances

The Norwegian SL corpus bases its definition of 'clause' on the model by Van Valin and LaPolla (1997) (Ferrara, unpublished annotation guidelines, updated January 2022). The clause in this model is explained as a basic propositional or utterance unit that has a verb which denotes a state, event or relation with one or more participants or arguments (Johnston, 2019a, p. 56). Clauses are traditionally considered to be the basic utterance units in a language, often used when describing a language's morpho-syntactic structure, and is traditionally linked to the act of *telling* for language users (for the semiotic strategy of description/telling, see section 1.3). Through segmentation of naturalistic SL, it is made evident that signers do not only *say* or *tell* through morpho-syntax and lexis, but that they often *show* meanings through depiction and enactment (Johnston, 2019a, p. 56).

Instead of the term ‘clause’, the term *clause-like utterance* (CLU) is used to include both the semiotic strategies of telling and showing (description and depiction). Any CLU can be an instance of telling or showing, or a combination. CLU annotation identifies meaningful units in the text, and it is not claimed that any CLU is a clause in the sense of the traditional grammatical construction (Johnston, 2019a, p. 57). Clause-like utterances can also be characterized as composite utterances in the sense of Enfield (2009). Composite utterances are defined by Enfield as communicative moves which incorporate multiple types of semiotic signs. Composite utterance as a term encompasses meaning-making in all modalities, and thus all languages, whether signed or spoken (Enfield, 2009, pp. 14-15).

Further emphasizing the need for a type of ‘clause’ which includes traditionally non-linguistic content, Ferrara and Johnston (2014) showed that constructed action can interact with the structure of CLUs, such that constructed action might be the only representation of the argument(s) within a CLU. “CA—gestural enactment—is often responsible for expressing information about participants and processes profiled by an Auslan CLU and thus functions similarly to linguistic arguments and predicates.” (Ferrara & Johnston, 2014, pp. 211-212). In other words, CA does not always include explicit expression of arguments, as CA can function as expression of both a verbal and its arguments simultaneously. This further strengthens the expectation that much of the CA will be unframed, cf. section 1.2.

6.4 PREVIOUS ANNOTATIONS

This subchapter describes the annotation work that has been done by others before the work of this thesis, which created the foundation of the further annotations by the thesis author, which will be described in section 6.5.

6.4.1 Previously completed annotation work

Previous to the annotations made for the purposes of this thesis, the chosen ELAN files had different degrees of annotation. All files had at least been segmented into CLUs and undergone basic tokenization by the corpus project leader and/or by deaf research assistants before I started working with the files. Tokenization in this sense means the segmenting of strings of signs into separate signs. The most basic form of tokenization is delineating when manual signs start and stop, without any form of glossing. Any files that were not segmented in this way, were not made part of the data material for this thesis. Some of the files had also

been glossed for manual signs, fully or in part[8]. Any signs that were already annotated with glosses were helpful to keep track of the narratives, but were not directly used in the analysis of data where the glossings were not complete. I.e. the analysis of this thesis is based on the actual signing in the video files, and not the glossings per se. For this study, the annotations segmenting the data into manual signs and CLUs formed the basis for the annotation of CA.

The CLUs in the corpus were annotated as simple CLUs, as tagging for clause complexity has not yet been added. This means that syntactically related CLUs may not have been marked as such. Therefore, quotative verbs with pronominal pointing and/or noun phrases to identify the referent of the quote was considered one predicate by the corpus annotators, and was thus annotated as one CLU. The quote itself was then annotated as a separate CLU. Many of these cases were noted as 'syntactical relations' in a comment tier in ELAN by the corpus leader, as a preparation for future annotation of syntactically related embedded clauses. Whenever clauses have been noted as syntactically related, and/or are clearly quotative, they have been considered by the thesis author as a clause complex and further annotated accordingly.

6.4.2 Previous annotations of narrative referents in the Frog Stories

In addition to these basic annotations of both the elicited and conversational narratives, the Frog Stories were also previously annotated for narrative referents and their activation status, for the study "A cross-linguistic comparison of reference across five signed languages" by Ferrara et al. (accepted) which uses the same annotation scheme as Hodge et al. (2019). These annotations were created for explicit referring expressions on three copies of a Narrative Referent tier (to allow for simultaneously expressed referents). The previously annotated narrative referent tiers were only concerned with referents that are explicitly mentioned through visible bodily actions. These visible bodily actions include referents that are expressed through: Lexical signs; conventionalized or partly conventionalized depicting signs; indicating signs and pointing; mouthings; fingerspelling; and gestures, and additionally visible or invisible surrogates (Hodge et al., 2019).. Readers are referred back to section 2.3 for information about sign types, and section 3.7 for visible and invisible surrogates.

The annotations on the narrative referent tiers contained the name of the referent as well as the referent's activation status. The activation status relates to the cognitive status

[8] The glosses are connected to Norwegian Signbank, and are known as ID-glosses. (Ferrara, L. (2021). Norwegian Signbank. In *Global Signbank* (2020 ed.): In Crasborn, Onno, Bank, Richard, Stoop, Wessel, Komen, Erwin, Hulsbosch, Micha, & Even, Susan (eds).)

(accessibility) of the referent, that is whether the referent is being introduced, reintroduced or maintained. Only the first mention of the referent was coded as introduced (tag: name of referent and NEW). If the referent had been mentioned in a previous CLU, but was not mentioned in the immediately previous CLU (i.e. explicitly referenced through visible bodily actions), it was coded as reintroduced (tag: name of referent and REIN). Any further mentions of the referent which were in co-reference with the previous CLU were coded as maintained, and were annotated with name of referent only. Maintained therefore means that the referent is: "… continued from the immediately previous clause." (Ferrara, n.d., p. 3). There were a couple changes to how the cognitive accessibility of referents was operationalized in this study, which later caused a few changes to the narrative referent tiers in the Frog Stories. This is further described in section 6.5.2.1.

6.5 ANNOTATIONS BY THE THESIS AUTHOR

In addition to the previous annotations described above, the author of this thesis also annotated all files for CA[9]. CLUs containing CA were then annotated for narrative referent and activation status, and finally instances of CA were annotated for framing. The further explications of the annotations done by the author for the purposes this thesis will be ordered by tier, in the order of which they were annotated: The tier for constructed action; the tier(s) for narrative referents, which includes both the changes made for the purposes of this thesis in the Frog Stories, and the annotations for narrative referents in the conversational narratives; and finally the CA framing tier. How to identify stretches of constructed action will be presented before the description of how CA has been annotated, and before the other annotations undertaken for the purposes of this thesis.

6.5.1 Constructed action tier

6.5.1.1 Identifying stretches of constructed action

In the corpus, CA is annotated with the code KH (konstruert handling, i.e. constructed action), on a dedicated tier. In order to annotate CA, it was necessary to delineate periods of enactment within the corpus files. "Rethinking constructed action" by Cormier et al. (2015) is used as the basis for annotating CA, along with the corpus annotation guidelines to the Auslan

[9] It is important to note that the thesis author is not a native signer. The thesis author is a hearing, second language learner of Norwegian SL, who started learning Norwegian SL in 2014, and has been a certified interpreter for interpreting to and from Norwegian SL and spoken Norwegian since 2017.

corpus by Johnston (2019a). Cormier et al. (2015) provide guidelines on how to annotate CA by using separate tiers for different body parts, and then subsuming them in a CA summary tier. Such detailed annotation was not necessary for the purposes of this thesis, and therefore only a CA summary tier has been used. Using only a CA summary tier is mentioned as a possibility by Cormier et al. (2015, p. 194) if information about individual CA articulators is not necessary. Irrespective of the number of tiers used, Cormier et al. (2015) and their work on CA articulators was used to help identify when CA occurred in the data.

Periods of CA can be signaled by: A clear change in eye gaze for the purpose of enacting a referent; enacting the facial expression of a referent; or when the participant's head position, head movement, torso or arms/hands are clearly used to enact a referent (Cormier et al., 2015, pp. 180-182). The behavior of the different articulators was used as a guide to identify periods of time where the signers produce CA. Therefore, not all breaks in eye gaze are considered enacting, the participant needed to clearly be taking on the role of a referent for the break in eye gaze to be considered enactment. In sum, within a stretch of signing, one or more of the articulators need to be actively enacting for the stretch of signing to be annotated for CA. An instance of CA need not be aligned with manual activity, the signer might be enacting with one or more of the non-manual articulators without signing (Cormier et al., 2015, p. 179). Readers are further referred to Cormier et al. (2015), particularly pages 180-182, for more information about different kinds of manual and non-manual activity that are not considered to instantiate CA.

Regarding manual CA, there can be a somewhat blurry line between enactment of the hands, and depicting signs that are representations of handling and/or manipulation. Cormier et al. (2012) propose that representations of handling/manipulation and CA are the same phenomenon in the sense that the signer's hands represents the referent's hands. These handling constructions are on a continuum of lexicalization, and may be lexicalized to different degrees. There are both lexicalized signs of handling, as seen previously in figure 9 with the sign DRIVE, and lexicalized signs of enactment, as seen in figure 8 with the sign SLEEP, i.e. lexical signs with iconic origins which may be used both in their citation form, and in more productive (delexicalized) forms as part of CA. Cormier et al. (2015, p. 185) note that it can be hard to differentiate between lexical, semi-productive and productive uses of signs of handling and signs of enactment.

6.5.1.2 Annotation of constructed action

Any stretch of CA on the CA tier was annotated as KH (CA) followed by a colon, and then the name of the referent being enacted. For example KH:GUTT (CA:BOY). If the CA referred to more than one referent at a time, for example the reactions of both the boy and the dog simultaneously, the CA was annotated as KH:GUTT-OG-HUND (CA:BOY-AND-DOG). These tokens of CA may span the entire CLU, or only part of it. Seeing as CA may occur with only one articulator, or several at once, CA annotations may be time-aligned with several signs on the right- and left-hand tiers. These signs may be lexical signs, or other conventional or non-conventional signing. A CA annotation may also be purely gestural, that is it can consist of only enactment without any conventional sign (Johnston, 2019a, p. 61), as in the example in figure 2 with CA of the boy looking over the log, and in figure 10 with CA of the boy holding the deer's antlers.

If there was a token of CA that was uncertain, it was annotated as KH? (CA?) (or e.g. KH?:GUTT (CA?:BOY)). Uncertain tokens were often stretches of signing where it was hard to tell if there was a subtle use of CA present. Examples are stretches of signing where it was difficult to tell if the signer is showing their current feelings about a past situation, or enacting feelings from the past situation, or difficulties deciding whether a lexicalized sign of handling is delexicalized enough to be considered CA. If the token of CA itself was certain, in the sense that the signer is clearly enacting, but the referent is uncertain, this was annotated with a question mark after the referent. Such as: KH:GUTT? (CA:BOY?). In cases of certain CA with uncertain referents, the uncertainty with this data material was always one of disambiguation: There were several (at least two) possible referents for that stretch of CA, with not enough contextual cues to decide which one was the referent of the CA.

If a signer is constructing a referent's dialogue, either spoken or signed, this was annotated as KD (CD) on the CA tier, for example KD:GUTT (CD:BOY). As constructed dialogue is here considered a subtype of constructed action, any instances where a signer is simultaneously enacting both the dialogue and the actions of a referent was annotated as KH for constructed action, and not KD for constructed dialogue. In the conversational narratives, whenever a signer is constructing action of themselves, for example in a past or metaphorical situation, it was annotated with their initials.

6.5.2 Narrative referent tiers

6.5.2.1 Change in annotation scheme

The annotation scheme for the narrative referent tiers was slightly changed from the annotation scheme of Hodge et al. (2019) to help operationalize the study, and in order to narrow down the analysis in line with the focus of the current study. As in the annotation scheme of Hodge et al. (2019), referents were considered maintained if they were mentioned by visible bodily actions in the previous CLU. Contrary to the Hodge et al. (2019) study, where a previous CLU without referring expressions meant the annotators looked to the last CLU with a referring expression (i.e. visible bodily action), this study does not look further back than the previous CLU. With the change in annotation scheme, only referring expressions denoting the referent of CA were made relevant. This further helped narrow down the focus of the analysis, as the dataset contained a large number of possible referents and thereby a large number of possible referring expressions.

In this study, maintenance is operationalized as: The referent of the CA was mentioned in the previous CLU. If it was not, it was considered reintroduced. As such, it was not taken into account if the previous CLU included referring expressions identifying other referents, or whether the previous CLU was one without referring expressions. The only factor considered was whether or not there was a referring expression identifying the referent of the CA in the previous CLU. This change made very little practical difference to the annotations in the Frog Stories, as there were few CLUs without referring expressions in these stories. Zero anaphora was also not accounted for in the Hodge et al. (2019) study, which was of no real consequence for the Frog Stories, as CLUs with true zero anaphora of the signers before a CLU with CA were not found in the Norwegian SL Frog Stories (by the thesis author). Rather, the anaphoric reference in the Frog Stories was often anaphora from indexing actions (including pointing signs, indicating verbs, eye gaze etc.) which created invisible surrogates, as explained in section 2.3 and 3.7, a category which was already accounted for in the category of visible bodily actions.

In the conversational narratives, true zero anaphora from plain verbs, i.e. unmodified verbs, were also evident. An example of this type of zero anaphora is a signer saying FORGET NEVER[10] "(I'll) never forget" where we understand clearly from context that it is the signer

[10] Example from P-TO1_KOK.eaf (BT:00:09:03.499-ET:00:09:04.357). Ferrara, L., & Bø, V. (2015 (collection date)). *A pilot corpus of Norwegian Sign Language. Unpublished video recordings and annotation files*.

who is never forgetting, but the reference is not explicit. Henceforth this type of zero anaphora will be simply labeled zero anaphora, while anaphoric reference by indexing actions will be referred to as invisible surrogates, to ascertain that there is no confusion regarding the two categories. Signers' zero anaphora was added to the list of referring expressions in the conversational narratives, in addition to the visible bodily actions as listed in section 6.4.2. I.e. if constructed action of a referent followed a CLU where there was zero anaphora of the same referent, the referent of the CA was considered maintained.

It is worth noting that the annotation scheme of Hodge et al. (2019) and the altered version of it used for this thesis, are both different from the annotation scheme used by Cormier et al. (2013b) in their study on the framing of CA in BSL. The Cormier et al. (2013b) study focused on the framing of referents of CA in the role of actor, and consequently only looked at switch reference regarding a switch in actor. Any intervening predicates with referents that were not in the role of actor, did not change the activation status of the actor. Only if other referents in the role of actor intervened, was the activation status changed to reintroduced (Cormier et al., 2013b, pp. 130-131). As mentioned in earlier sections (1.2 and 4.5) not all referents of CA are actors. Looking only at referents of CA that are actors implies that actors are more relevant regarding framing of CA in switch reference than undergoers, something which I did not wish to take for granted in this study. This thesis therefore includes all referents of CA, regardless of macrorole.

6.5.2.2 Annotation of narrative referent tiers in the conversational narratives

The conversational narratives were not previously annotated for narrative referent tiers or CA. In the conversational narratives, the CA annotation was done first, while the narrative referent tiers were annotated secondly. The narrative referent tiers for the conversational narratives were only annotated in the CLUs containing CA, in line with the focus of the current study. The referent of CA was annotated on the tier called NarrativeReferent1, and this was the only narrative referent tier exported along with aligning annotation on other tiers, in order to get to the results for framing of CA. Any annotation on the other two narrative referent tiers were simply in order to keep track of referents, for ease of identifying the activation status of the referents of the CAs.

The annotation of activation status was less straightforward in the conversational narratives than in the Frog Stories. Signers may have started the conversation while the cameras were being prepared, and this may affect their referencing choices in the subsequent stretch of

conversation. In these contexts, it can be impossible as an annotator to know if a certain referent has been referred to already or not. The last issue pertains to whether certain referents should be analyzed as new or reintroduced. In this thesis no referents in the conversational narratives have been considered given in the sense of Chafe (1976), except the conversation participants themselves.

Each conversation as a whole, from the starting point of the filming, has been taken into consideration when it comes to the activation status of narrative referents. If a referent has been mentioned by one of the participants in the conversation, this referent is considered reintroduced when mentioned again by another conversation participant. Any nouns that denote several referents, e.g. PARENTS, introduce or reintroduce both referents. If one of the referents is maintained, and the other is reintroduced, for example MOTHER has been mentioned in the previous CLU, but the other parent was not (and was mentioned earlier), the narrative referent PARENTS is annotated as reintroduced. The same goes for plural pronominal pointing. If a signer refers to themself by a first person pronominal point in one CLU, and by a plural pronominal meaning "we" in the next CLU, the plural pronominal is annotated as reintroduced, as not every referent that the sign denotes were mentioned in the previous CLU.

6.5.3 Framing tier

In addition to the CA tier and the narrative referent tiers, a CA framing tier was added to the Frog Stories and the conversational narratives in order to tag and easily export the reference sequence. The CA framing tier is a sub-tier of the CA tier in ELAN (Crasborn & Sloetjes, 2008; *ELAN (Version 6.0) [Computer software]*, 2020). The tokens of constructed action were noted by the thesis author as contiguous reference, non-contiguous reference, or unframed CA, in line with the definition proposed by Cormier et al. (2013b, p. 127): Within a CLU, the reference is deemed contiguous if a noun phrase identifying the referent is immediately followed by CA of the same referent. In this thesis, reference was also deemed contiguous if the noun phrase immediately follows CA of the same referent within the same CLU.

If any elements such as lexical predicates or depicting signs[11] intervene between the noun phrase and the CA, this was coded as non-contiguous reference. If there was no noun phrase preceding the CA in the CLU, or no noun phrase referencing the same referent as the CA, or

[11] Depicting signs that do not refer to the referent of the CA.

there was another token of CA between the referent NP and the targeted CA, this was coded as unframed CA (Cormier et al., 2013b, p. 127). Only the instances of CA that were considered certain were annotated for framing. For this thesis, the annotation categories for the framing tier have been somewhat changed and expanded, which is explicated below.

6.5.3.1 Contiguous reference

A noun phrase identifying a referent which is immediately followed by CA of the same referent within the same CLU is coded as 'NP CA'. Readers are referred back to section 6.3.2 on nouns and noun phrases in this thesis. Below in figure 16 is an example of contiguous reference with CA, as the first CA in the figure is 'NP CA'. NB: The signer in figure 16 uses a Norwegian SL sign for DOG which is a one-handed sign with a flat hand, known as B-hand, which pats the outer side of the thigh. This sign is not visible within the border of the video screen. Figure 11 is a further example of NP CA, where the referent of the CA is a new mention. Figure 1 is also an example of contiguous reference with a NP.

Pronominal points (PP) immediately followed by a CA of the same referent within the same CLU is coded as 'PP CA', shown in figure 17 below. In Norwegian SL, pronominal pointing may also occur clause-finally (Vonen, 2020, p. 111). To account for this, a third contiguous category was added: 'CA PP' for constructed action of a referent followed by a pronominal point of the same referent. Similarly, the category 'CA NP' was added as a framing category.

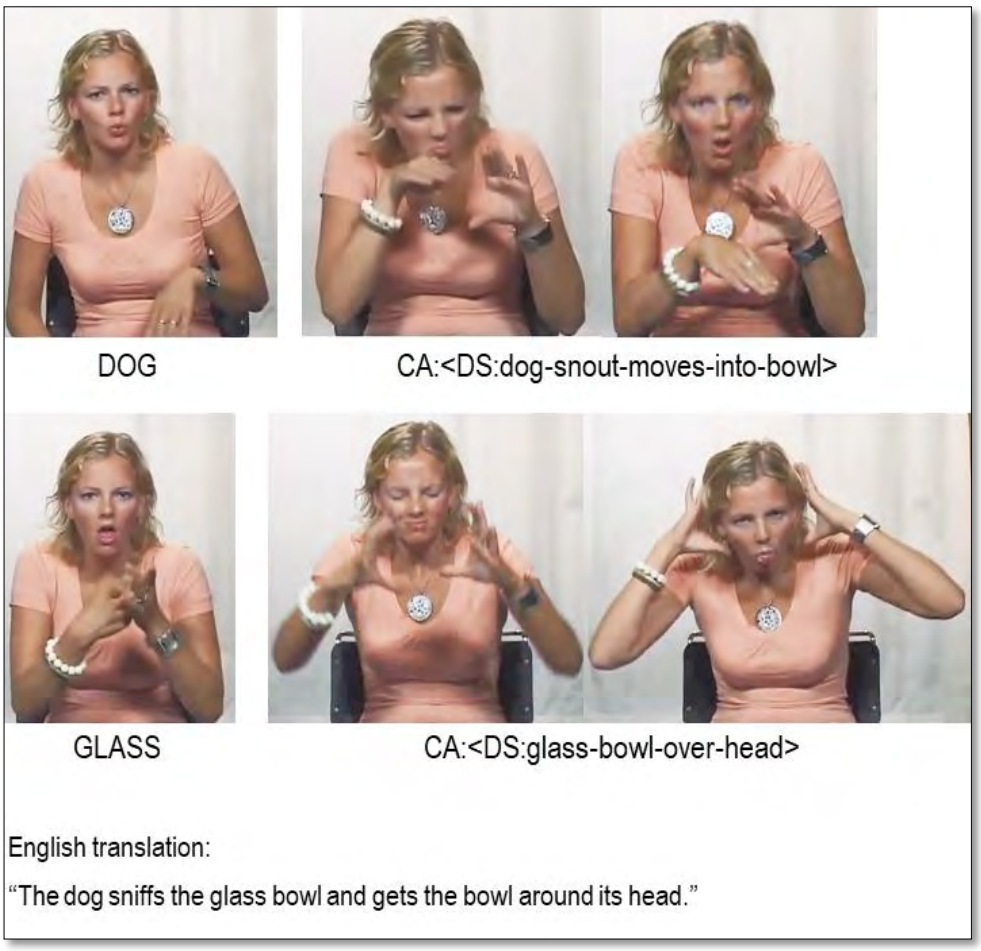

Figure 16: Example of a CLU with one NP CA in a reintroduced context, and one unframed CA in a maintained context, from one of the Frog Stories. (Ferrara and Halvorsen (2021)): NTSFrog_RPH12_PS_Frosk3.mp4. BT: 00:00:36.230, ET: 00:00:38.040)

Figure 17: Example of PP CA in a maintained context, from one of the conversational narratives. (Ferrara and Bø (2015 (collection date)): P-TO1_EMT.eaf. BT: 00:06:57.525, ET: 00:06:58.879)

There is also a simultaneous variant of NP CA, where the CA is already in progress when the NP is mentioned (Cormier et al., 2013b, p. 133). This variant is noted as 'NP CA sim' on the framing tier. This is not considered a separate type, but rather a sub-type of NP CA. This category was originally added by Cormier et al. (2013b) in order to show that explicit reference was possible during CA, contrary to claims for ASL (Lillo-Martin, 2012). In this thesis, the most clearly simultaneous cases of NP with CA have been annotated as NP CA sim, to show that this simultaneity is also possible for Norwegian SL. Simultaneous cases with pronominal pointing have been annotated as 'PP CA sim'. An example of PP CA sim is shown in figure 18 below.

Figure 18:
PP CA sim in a maintained context from one of the conversational narratives. Also an example of a single, entirely simultaneous CLU with CA. The signer's right hand signs a singular pronominal point (PT:PRO1) while the left hand depicts the signer holding a dog leash. The signer is enacting herself, forcing a smile when someone asks questions about the dog. (Ferrara and Bø (2015 (collection date)): P-OULAO4.eaf.
BT: 00:05:25.826, ET: 00:05:26.186)

In addition, a category named DS CA was added. The category was added in order to account for cases where the CA was not framed with a noun phrase or a pointing sign, but with a depicting sign that identified a referent immediately followed by CA of the same referent within a CLU. This category was added after the data material showed that this type of framing did occur, and a separate category for annotation was added as a way to account for these cases, as they did not fit into the other framing categories.

6.5.3.2 Non-contiguous reference

When a noun phrase or a pronominal point identifying the referent is followed by intervening material (e.g. a lexical sign), before the constructed action of the same referent, this is coded as 'NP…CA'. The use of a quotative verb after a NP, and followed by CA, is subsumed under this category. Similarly to the contiguous category, there is a separate tagging for pronominal pointing. Any pronominal pointing followed by a lexical predicate and/or a depicting sign

before the CA of the same referent, is coded as 'PP…CA'. There is also the possibility of 'CA…PP', for example if the constructed action of a referent is followed by a quotative verb and then a pronominal point referring to the referent of the CA. 'CA…NP' was also a possible category but did not occur in the dataset. If a signer framed the CA with a NP or PP both directly before and after, such as with a pronominal point to themselves (PK:PRO1), only the first mention was counted. An example of non-contiguous reference by PP…CA is found in figure 19, below.

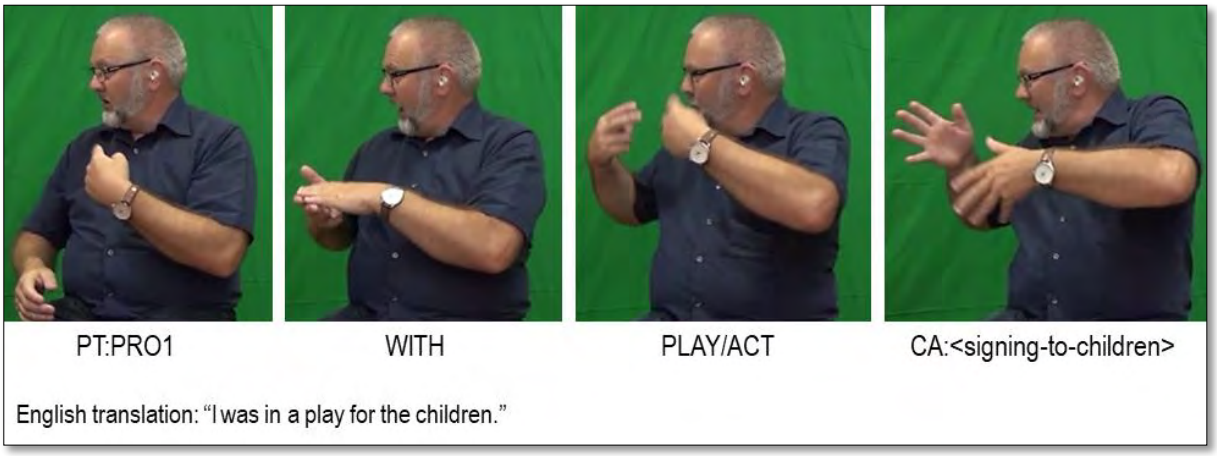

Figure 19: Example of non-contiguous reference, PP…CA in a reintroduced context. (Ferrara and Bø (2015 (collection date)): P-TO1_KOK.eaf. BT: 00:32:30.247, ET: 00:32:31.626)

6.5.3.3 Unframed constructed action

CA1 is the tag for when the constructed action does not have a preceding noun phrase or pronominal point identifying the referent, as shown in figure 20 below, or another instance of CA comes between the NP/PP and the second instance of CA, as in the second instance of CA in figure 16 above.

Figure 20: Example of unframed CA in a maintained context from one of the Frog Stories. (Ferrara and Bø (2015 (collection date)): NTSFrog_P-TEMTO4.eaf. BT: 00:00:11.015, ET: 00:00:12.376)

The signer in figure 20 constructs the actions of the frog in the story, which is inside a glass bowl and climbing on the glass. This is an example of a CLU that consists of only an instance of overt constructed action, which is unframed and in a maintained context. In figure 16 the second instance of CA is also unframed CA in a maintained context. All tags used for framing are subsumed in table 3 below.

Table 3 - Tags used for framing categories

Unframed CA	CA1
Contiguous reference	NP CA, CA NP PP CA, CA PP DS CA
Non-contiguous reference	NP…CA PP…CA, CA…PP

6.5.4 Checking of study tiers in the Frog Stories and the conversational narratives

CA annotation of the Frog Stories were the first annotations carried out for the purpose of this thesis. After they were annotated once, they were double checked by Lindsay Ferrara, second advisor of this thesis and responsible for the Norwegian SL corpus. Subsequently, the CA annotations underwent three additional rounds of annotations and checks. Each round[12] included going through all the CLUs in the files to look for CA, and annotating instances of CA when found, in the way explicated above. The second part of each round consisted of checking the CA tier, which included going through each annotation of CA to ascertain if it should be considered a certain or uncertain case. The CA tier in the conversational narratives were also annotated and checked in three rounds, in the same way as the Frog Stories.

The rounds of annotations and checks are necessary quality assurance when working with a SL corpus, as SL corpora are considered to be stabilized over time rather than validated, in the sense that fewer and fewer corrections are made for each round through the data (Johnston, 2019a). Readers are referred to Johnston (2019a) for more information regarding the stabilization of SL corpus annotations. Regarding the narrative referent tiers, these were checked in three rounds in the Frog Stories, similar to the checks on the CA tier. The checks on the narrative referent tiers in the Frog Stories included checking that they aligned with the annotation scheme of this study, and changing any annotations that did not fit the scheme.

[12] Often called parse in SL linguistics.

The checks also included a cross-tier check of whether the referent annotated on the CA tier matched the referent on the narrative referent tier, before the annotations were used for further analysis.

In the conversational narratives, the narrative referent tiers were annotated in three rounds with the annotation scheme as described in section 6.5.2.1. Each round included going through all the certain instances of CA that had been annotated on the CA tier, and for each instance, annotate the narrative referents of the CAs on the narrative referent tiers. Each round also included looking at whether the referent of CA was mentioned in the previous CLU (by visible bodily actions or zero anaphora), in order to discover and annotate the activation status of the referent of CA, and making sure that the referent of the CA matched the narrative referent as annotated on the NarrativeReferent1-tier. Any uncertain cases in the data material were annotated with a question mark. The uncertainties mainly concerned uncertainties on the CA tier, especially whether or not there was a subtle use of CA present. The instances that were still considered uncertain after all rounds of annotations and checks were complete, were not annotated for framing. The CA framing tier was also annotated and checked in three rounds, similar to the checks for the other tiers.

6.5.5 Elan search strings

After the annotation of the data was completed, the annotations were exported and further organized and analyzed in Excel. The Frog Stories and conversational narratives were exported separately, in order to compare the two genres. The search string used was: File – export multiple files as – annotation overlaps information – and then choosing domain. The Frog Stories were exported as one domain, and the conversational narratives were exported separately as another domain. The selected reference tier was the CA tier, which was exported alongside the tier with clause-like utterances (CLU), the CA framing tier, and the narrative referent tiers. The decision to use the CA tier as the reference tier rather than the CLU tier was due to some CLUs containing more than one instance of CA, for example the two instances of CA in figure 16.

All three narrative referent tiers were exported for the Frog Stories, while only NarrativeReferent1-tier was exported for the conversational narratives. Once the annotations were exported to Excel, the number of uncertain annotations on the CA and CA framing tier were noted in a separate document, and then removed from the Excel file. All CA annotations for each of the video files were numbered in Excel and the number was double-checked with

the number of CA annotations in ELAN. The exportation and counting of the annotations was done twice, to ensure that there were no undue mistakes in the exportation.

In Frog Stories and conversational narratives with a total number of CA under 50, all instances of CA were made part of the analysis. For files with a number of CA over 50, the randomization function in Excel was used to pick out a random sample of 50 instances of CA. The choice to use a maximum of 50 instances per file was made in order to balance the results across signers, with the aim to see general framing practices. Therefore a maximum of 50 instances per signer was considered adequate. Subsequently, each instance in the samples was noted in a separate column with the exported framing category (e.g. NP CA, CA1, PP CA) and activation status, with the tag *new* for first mentions, *main* for maintained activation status, and *rein* for reintroduced activation status. The column with framing category plus activation status for the Frog Stories and the conversational narratives respectively, was checked three times before it was summarized.

6.5.6 Type of analysis

This thesis uses simple descriptive statistics, by the use of arithmetic mean (average) of the findings given in percentages. The aim is to give a descriptive overview and starting point to the study of CA framing in Norwegian SL, as this is the first study on the framing of CA in Norwegian SL. The hope is that future studies, using a wider range of data from the expanding corpora, can replicate the findings and further analyze them by inferential statistics and/or multivariate statistical analysis. This would allow further elaboration on the statistical significance of the variation found in different genres of narrative, as well as further exploration of sociolinguistic variables.

7 FINDINGS

This chapter will present the findings from the study. First, the findings from the CA tier regarding the number and variation of CA will be presented for the Frog Stories and the conversational narratives. Subsequently, the main findings of the thesis will be presented: How the framing of CA relates to the activation status of referents. The results for the Frog Stories and the conversational narratives will be presented in the categories of maintained referential contexts and reintroduced referential contexts. The thesis will then give a closer look at the framing categories, and how the CA patterns across unframed CA and the different categories of framing. Lastly, the findings section will look at the new mentions found in the study, which have been separated from the findings of the other activation statuses due to their low number.

7.1 VARIATION AND FREQUENCY OF CONSTRUCTED ACTION

7.1.1 Variation and frequency of constructed action - Frog Stories

There is a considerable variation in the number of CA in the Frog Stories, with a range of 19 to 144 instances of CA per signer, with a total of 641 instances and thereby an average of 64 instances per signer. This includes only instances of CA considered eligible for further analysis, i.e. instances of CA that were considered certain. In addition, 44 instances on the CA tier were considered uncertainly identified. Each signer ranged between one to seven uncertainly identified CA, with an average of 4.4. Nearly all were instances where I was unsure as an annotator of whether or not there was a subtle use of CA present.

Subsumed under the 44 uncertainly identified CA are a handful of cases noted as uncertain referent of the CA. These are either cases where it was uncertain whether the signers showed their feelings as a storyteller vs. as a character, and in a couple of cases the referent of the CA was deemed ambiguous. Of the 641 certain instances of CA, only three cases were uncertain regarding framing. Two are due to possibly ambiguous pointing, and one due to uncertainly identified framing category. After the randomization and capping of CA tokens in the files with over 50 instances of CA, the resulting number of CA used for the main analysis in the Frog Stories amounted to a total of 417.

7.1.2 Variation and number of constructed action - Conversational narratives

The conversational narratives were produced by five older and five younger signers. The total number of certainly identified CA across all signers totaled 721 instances. This includes only instances of CA that were considered certain enough for further analysis. The conversational narratives with the five younger signers range from 6 to 34 instances of CA, with an average of 19.6 instances of CA per signer. Among the longer conversational narratives with the five older signers, instances of CA range from 92 to 197, with an average of 124.6 instances of CA per signer. The number of uncertainly identified CA and uncertainly identified referent of the CA were larger across the conversational narratives than in the Frog Stories. This was not unexpected as the Frog Story contains a set range of referents and more similarities in how signers enact these referents as they are telling the same story, while the conversational narratives could be about any topic and contain any number of referents unknown to me as an annotator.

Across all conversational narratives, there were 131 uncertainly identified CA, and 29 cases of uncertainly identified referent of the CA. Neither have been counted as part of the 721 certainly identified instances. Similar to the Frog Stories, uncertainty as to whether or not there was subtle constructed action present, is the cause of the majority of the 131 cases. The 29 uncertainly identified referents are due to possible ambiguity of the referent. 21 of the 29 cases belonged to one signer, due to a few narrative sequences with long stretches of unframed constructed dialogue and role shift between human referents, which caused some doubt for me as an annotator concerning who was saying what to whom. The other eight cases were spread across five of the other signers, and were also due to perceived ambiguity of the referent.

Of the 721 instances of certainly identified CA, 23 were considered to have uncertain framing. Some of these were due to uncertain CLU boundaries from previous annotations by corpus annotators. As I worked with conversational narratives that were works in progress, this was also to be expected. When the CLU boundaries were uncertain, this created uncertainty regarding which signs should be considered part of the CLU, thereby making framing analysis unviable. Some cases of uncertain framing were also due to ambiguous pointing actions. If the point could not be confidently said to identify one referent or other, the framing was considered uncertain.

Across the 721 instances of CA, there were also 31 cases of uncertain NarrativeReferent1-tier. These were cases where the referent of CA was identified, but the activation status was uncertain. Some of these were due to uncertain CLU boundaries, similar to the uncertainties regarding framing. In these cases the uncertainty was related to both the CA framing and the annotation of the NarrativeReferent1-tier. Only the cases that had annotations on all relevant tiers that were considered certain enough, i.e. the CA tier, CA framing tier and the NarrativeReferent1-tier, were part of the data that was eligible for further analysis. The total number of CA that were deemed certain enough on all relevant tiers, numbered 667 instances in the conversational data. After randomizing and capping the tokens of CA to maximum 50 instances per signer, 343 instances of CA were used in further analysis. The following section will present how the 417 instances of CA in the sample for the Frog Stories, and the 343 instances of CA in the sample for the conversational narratives, were framed by activation status.

7.2 FRAMING BY ACTIVATION STATUS

As readers may remember, the hypothesis of this thesis was presented in section 1.2. In order to see how the analysis aligns with the hypothesis, the hypothesis is repeated here:

> Framing constructed action through the use of a noun phrase or pronominal point will occur more frequently in contexts of switch reference. In contexts of co-reference between the referent of the CA and a referent in the previous clause, explicitly framing the constructed action with a noun phrase or pronominal point will occur less frequently.

Analysis of the annotations provide findings that support this hypothesis. The main finding relating to the hypothesis, is that framing of CA in Norwegian SL occurs more frequently when the referent of the CA is in switch reference (reintroduced contexts) than in co-reference (maintained contexts), across both genres. Consequently, the findings of this study, in broad terms, fit into a long list of studies on both SLs and SpLs which state that a switch in reference conditions whether or not referents are overtly identified, following Givón (1983b). (e.g. Cameron, 1992, 1998; Cormier et al., 2013b; Ferrara et al., accepted; Flores-Ferrán, 2007; Hodge et al., 2019; McKee et al., 2011; Wulf et al., 2002).

Details about the findings for framing by activation status will further be separated into co-referential (maintained contexts) vs. Switch reference (reintroduced contexts), and presented in that order, with sub-sections for the Frog Stories and the conversational narratives respectively. The results for new referents will be discussed separately in section 7.4.

7.2.1 Constructed action in maintained referential contexts

The findings for percentage of CA in maintained contexts, and the percentage of framed CA and unframed CA in maintained contexts for both the Frog Stories and the conversational narratives are found in table 4 below. The results are further described in section 7.2.1.1 for maintained contexts in the Frog Stories, and in section 7.2.1.2 for maintained contexts in the conversational narratives.

Table 4 – CA in maintained referential contexts

	Percentage of CA in maintained contexts	Percentage of unframed CA in maintained contexts	Percentage of framed CA in maintained contexts
Frog Stories	76%	89.6%	10.4%
Conversational narratives	74.3%	77.6%	22.4%

7.2.1.1 CA tokens in maintained contexts - Frog Stories

For the Frog Stories, the results for CA framing in maintained contexts largely support expectations that explicit framing would occur less frequently in co-reference. Of the 417 instances of certainly analyzed tokens of CA in the Frog Stories, 317 of them were in a maintained context, i.e. 76% of the CA. These results were as expected, considering previous research showing that CA is a discourse strategy used most often in maintenance (Ferrara et al., accepted; Hodge et al., 2019). In maintained contexts, 284 out of 317 instances of CA were unframed (CA1), which amounts to 89.6%[13]. A high percentage of unframed CA in maintained contexts was also expected, due to research showing that CA is frequently unframed when the referent is maintained (Cormier et al., 2013b) and studies on how CA is

[13] All results in percentages are rounded up or down to the nearest decimal, and presented with a maximum of one decimal.

used to maintain referents without needing to be explicitly reidentified with a noun (Morgan, 2006; Reilly, 2000).

The findings are also in line with research on quotations in Spanish, where co-reference was found to favor unframed quotations (Cameron, 1998). Cormier et al. (2013b) found 75% of unframed CA in maintained contexts in BSL, which means the findings from the Norwegian SL Frog Stories surpass theirs in the frequency of unframed CA. Possible reasons will be examined further in section 8.4 of the discussion. While signers frequently choose to not frame CA in maintained contexts in the Frog Stories, there were still 33 instances where they did frame, which amounts to 10,4% of the time. 30 of these 33 were with a noun phrase. Cormier et al. (2013b) also found that signers used noun phrases to frame in maintained contexts, when they did frame. See table 4 above for a summary of the presented percentages in the Frog Stories.

7.2.1.2 CA tokens in maintained contexts - Conversational narratives

In the conversational narratives, 255 of the 343 instances of CA in the sample were in a maintained context, i.e. 74.3%. The percentage of CA in maintained contexts in the conversational narratives is thus very close to the percentage of CA in maintained contexts in the Frog Stories. This percentage in the conversational narratives further underpin the expectation that much of the CA would be CA in maintained contexts. Of these 255 instances, 198 were unframed, which is 77.6% of the time in maintained contexts. These results are lower than for the Frog Stories, and closer to the 75% unframed CA found in maintained contexts by Cormier et al. (2013b). 57 out of 255 instances in maintained contexts were framed, that is 22.4% of the time.

The conversational narratives have further been split into results for first person reference vs. third person reference in maintained contexts. Third person reference here includes all reference to third person referents, whether it is unframed, or framed with a pronominal point or a noun phrase. The reason for differentiating first person from third person is due to signers frequently enacting self-experienced situations in the conversational narratives. Differentiating the results made it possible to see how self-CA patterned compared to CA of other referents. Of the 343 instances of CA in maintained referential contexts, 186 were signers' enactment of themselves when narrating experiences from the past. These 186 only include first person singular reference.

150 of the instances of CA in the conversational narratives are third person reference. These referents are additionally nearly all human. The exception is three instances of enacting dogs. There are no instances of enacting inanimate objects or abstract entities in the sample. Third person CA includes data from nine of the ten participants, as one of the shorter files did not contain any third person CA. Third person reference has not been further differentiated into pronominal vs. full nominal reference in order to see general practices of framing referents other than the self in the conversational narratives. The remaining seven instances of CA were first person plural, which have not been analyzed together with first person singular, due to the two categories being known to pattern differently in both SpLs and SLs (e.g. Flores-Ferrán, 2007; McKee et al., 2011; Wulf et al., 2002). Below in table 5 is an overview of CA in maintained contexts in both the Frog Stories and the conversational narratives as a whole, as well as self-CA and third person CA separately. The findings for self-CA and third person CA in maintained contexts are further described below.

Table 5 – CA in maintained referential contexts - All genres

	Percentage of CA in maintained contexts	Percentage of unframed CA in maintained contexts	Percentage of framed CA in maintained contexts
Frog Stories	76%	89.6%	10.4%
Conversational narratives (all)	74.3%	77.6%	22.4%
Conversational narratives (third person)	67.3%	87.1%	12.9%
Conversational narratives (self-CA)	81.2%	72.2%	27.8%

When the results for the conversational narratives are divided into self-CA (first person singular reference) vs. third person CA, the results pattern differently. In the third person CA in the conversational narratives, 101 of the total 150 instances of CA are maintained reference, i.e. 67.3%. This is somewhat lower than the degree of CA in maintained contexts in the Frog Stories and the conversational narratives as a whole, and is likely explained by the larger number of unique referents in the conversations. Considering the degree of framing in

maintained contexts, signers do *not* frame in 88 out of 101 instances in third person CA, which is 87.1% of the time. Framing is thus at 12.9%. The results for framing in third person CA are therefore more similar to the results from the Frog Stories, which only contain third person reference, of both humans and animals (no inanimates).

Looking at self-CA, 151 of 186 instances are in a maintained context, which is 81.2%. Of the 151 instances of CA in maintained contexts in self-CA, 109 instances are unframed, and 42 are framed. That is 72.2% and 27.8% respectively. Consequently, it seems probable that the amount of self-CA in the conversational narratives increases the degree of framing for the conversational narratives overall. A likely reason for this is that self-CA, when framed, is framed with a first person singular pronominal point. As presented in the research on reference in both SpLs and SLs, first person singular is more likely to be overt than third person reference (Cameron, 1992; Flores-Ferrán, 2007; McKee et al., 2011; Wulf et al., 2002), as will be discussed further in section 8.5 of the discussion.

7.2.2 Constructed action in reintroduced referential contexts

The findings for the percentage of CA in reintroduced contexts, as well as the percentage of unframed and framed CA in reintroduced contexts are presented in table 6 below, for all genres. The findings are further described below in section 7.2.2.1 for the Frog Stories and section 7.2.2.2 for the conversational narratives.

Table 6 - CA in reintroduced referential contexts

	Percentage of CA in reintroduced contexts	Percentage of unframed CA in reintroduced contexts	Percentage of framed CA in reintroduced contexts
Frog Stories	23%	54.2%	45.8%
Conversational narratives (all)	21.9%	37.3%	62.7%
Conversational narratives (third person)	24%	36.1%	63.9%
Conversational narratives (self-CA)	18.8%	40%	60%

7.2.2.1 CA tokens in reintroduced contexts - Frog Stories

The total cases of CA in reintroduced contexts in the Frog Stories amount to 96 instances, which is 23%. The expected results for reintroduced contexts, cf. the hypothesis, and earlier work on framing of CA in BSL (Cormier et al., 2013b), was that the percentage of framing in reintroduced contexts would occur with higher frequency than framing found in maintained contexts. Of the 96 instances in reintroduced contexts, 44 were framed and 52 were unframed. Thereby, framing in switch reference in the Frog Stories is at 45.8%, and unframed at 54.2%.

Signers are thus shown to frame with a higher frequency in reintroduced contexts than in maintained contexts, cf. the hypothesis. In addition, there was the expectation that within the category of reintroduction, framing would occur with higher frequency than unframed CA. This expectation was not met in the data, as the percentage of unframed CA in reintroduced contexts in the Frog Stories actually surpassed the percentage for framed CA. For comparison, in the Cormier et al. (2013b) study, the percentage of framing in reintroduced contexts was only at 12%. Possible reasons will be discussed further in the discussion, particularly in section 8.1 and 8.4.

7.2.2.2 CA tokens in reintroduced contexts - Conversational narratives

In the conversational narratives, 75 out of 343 instances of CA were in a reintroduced context, i.e. 21.9%. In the conversational narratives, there is a higher frequency of framing in reintroduced contexts compared to the Frog Stories. 47 of the 75 instances in reintroduced contexts here are framed, while 28 are unframed, which is 62.7% and 37.3% respectively. As such, the conversational narratives are in line with the hypothesis that framing would occur more frequently in reintroduced contexts than in maintained contexts. The results from the conversational narratives are additionally more in accordance with the expectation that there would be a higher frequency of framed CA in reintroduced contexts than unframed CA.

While the frequency of framing is higher in the conversational narratives than in the Frog Stories, the frequency still stops short of the 88% framing frequency in reintroduced contexts found by Cormier et al. (2013b), further discussed in section 8.4. Distinguishing third person CA and self-CA in the conversational narratives does not seem to change the balance between framed and unframed to any noticeable extent regarding the results for reintroduced contexts. It may be noted that when comparing third person CA and self-CA in reintroduced contexts, the number of instances per category is not great, which may make the results less reliable. In third person CA, 36 instances were in reintroduced contexts (24%), of which 23 were framed

and 13 were unframed, i.e. 63.9% framed vs. 36.1% unframed. For self-CA, the numbers are similar: 35 instances were in reintroduced contexts (18.8%), with 21 framed and 14 unframed, i.e. 60% framed vs. 40% unframed. In other words, distinguishing third person CA from self-CA in maintained contexts seems to have a greater effect on the results than distinguishing the two categories from each other in reintroduced contexts. A closer look at the framing categories found in the sample for the Frog Stories and the conversational narratives will be presented in the next section.

7.3 FRAMING CATEGORIES

This section will look at the findings from a different perspective, that is how the findings pattern regarding framing categories. The first framing category is unframed CA, which will be presented in section 7.3.1 below, with the findings for the Frog Stories and the conversational narratives presented together. How the framed CA patterns across framing categories will be described in section 7.3.2, with findings for the Frog Stories and the conversational narratives presented separately.

7.3.1 Unframed constructed action

The percentages of unframed CA in both genres are presented in table 7. The findings are further described below.

Table 7 – Unframed CA in both narrative types

	Percentage of unframed CA of total CA	Percentage of unframed CA that is co-referential
Frog Stories	80.8%	84.3%
Conversational narratives	67%	86.1%
Across genres	74.6%	85%

A majority of the instances of CA in the Frog Stories were unframed, with 337 of the 417 instances of analyzed CA, i.e. 80.8%. Of these 337 unframed CA, 284 were co-referential. I.e. 84.3% of all unframed CA were in a maintained context. In the conversational narratives, the number of unframed CA was at 230 of 343 analyzed instances of CA, i.e. 67%, which is a somewhat lower number than in the Frog Stories. Of the 230 unframed CA in the

conversational narratives, 198 were co-referential. This means 86.1% of the unframed CA in the conversational narratives were in a maintained context. The percentage of unframed CA in a maintained context in the conversational narratives largely mirror the percentage in the Frog Stories, and thus further match the expectation that much of the unframed CA would be co-referential, as described in the results for maintained contexts. Across both genres, unframed CA made up 567 of the 760 instances of CA in the sample, amounting to 74.6% of the total CA. The co-referential percentage of unframed CA across both genres is 482 of the 567 unframed CA, i.e. 85%.

7.3.2 Framed constructed action

The percentages for the main categories of framing are presented in table 8 below, with the findings explicated for the Frog Stories in section 7.3.2.1 and for the conversational narratives in section 7.3.2.2. For picture examples of the data, readers are referred back to figure 1 in section 1.1, as well as the figures presented in section 6.5.3.

Table 8 – Framing of CA in both narrative types

	Percentage of total CA that is framed	Of framed: Contiguously framed	Of framed: Non-contiguously framed	Of framed: Contiguously with NP	Of framed: With pronominal point
Frog Stories	19.2%	93.8%	6.2%	86.3%	6%
Conversational narratives	32.9%	82.3%	17.7%	19.5%	71.7%

7.3.2.1 Framed constructed action - Frog Stories

In the Frog Stories, 80 of the 417 instances of CA in the sample were framed, which is a framing percentage of 19.2%. 75 of the 80 cases of framing in the Frog Stories were contiguous framing, i.e. 93.8%. 69 of the contiguous cases were with a noun phrase, i.e. ‘NP CA’ or ‘NP CA sim’, plus one case of ‘CA NP’. This means that when signers framed CA in the Frog Stories, they framed contiguously either with a bare noun or full noun phrase, without a quotative verb, 86.3% of the time. As mentioned earlier in this thesis, noun phrases have been distinguished from pronominal pointing, and therefore noun phrases do not include reference with only a pronominal point.

Only five of the framed cases were non-contiguous reference, i.e. 'NP...CA' or 'PP...CA'. Only one of them, an instance of NP...CA, included a quotative verb: The verb THINK. In other words, quotative verbs are not commonly used to frame CA in the Frog Stories. These results largely confirm the expectation that when signers do frame, they are likely to frame with a bare noun or NP, rather than with an accompanying quotative verb. These results are as expected from the study of Cormier et al. (2013b) as well as the work of Morgan (2006) and Reilly (2000). The results may also be affected by the subtypes of CA. As mentioned in section 5.2.2, Cormier et al. (2013b) questioned whether quotative verbs could be used for the quoting of actions, as quotative verbs had only been found in some instances of quoted utterances.

Framing by the use of pronominal pointing totaled five cases across contiguous and non-contiguous reference in the Frog Stories, and thereby fit the expectation that pointing would only rarely be used to frame CA in the elicited narratives. This expectation was due to the low amount of pointing to denote referents in other studies of referencing in SLs (Cormier et al., 2013b; Frederiksen & Mayberry, 2016; Hodge et al., 2019). Framing by the use of only a depicting sign which identifies the referent of the CA ('DS CA') occurred two times, and has been considered subsumed under contiguous reference.

7.3.2.2 Framed constructed action – Conversational narratives

In the conversational narratives, 113 of the 343 instances of CA were framed (32.9%). Framing in the conversational narratives is thus somewhat more frequent than in the Frog Stories, where the frequency of framing was at 19.2%. 93 of the 113 instances of framing were contiguous reference, which adds up to 82.3% contiguous reference when CA is framed. 20 of the 113 instances of framing, i.e. 17.7%, were non-contiguous framing, by either NP or PP. A noticeable difference in the framing of the conversational narratives vs. the Frog Stories, is the use of pronominal pointing as framing in the conversational narratives. Of the 113 cases of framing, only 22 are contiguous reference with a noun phrase (NP CA), that is 19.5% contiguous framing with a NP. If we include all instances of framing with a NP (NP CA + NP...CA), the number of framing with a NP only numbers 30 cases, i.e. 26.5% of the total instances of framed CA.

81 of the 113 cases of framing, that is 71.7%, are with a pronominal point. This includes pronominal pointing in both contiguous and non-contiguous reference. When contiguous PPs and non-contiguous PPs are differentiated, 69 instances (61%) of framing is done with a

contiguous pronominal point (PP CA, PP CA sim, CA PP and CA PP sim), and 10.6% with a non-contiguous pronominal point (PP...CA, CA...PP and CA...PP sim). Considering the amount of self-CA in the conversational narratives, the amount of pointing as framing is perhaps unsurprising. After all, when referencing oneself, the choices are mainly pronominal reference or zero anaphora, rather than nouns. Additionally, pronominal reference is represented in the third person CA, with 15 of 45 instances of framing across contiguous and non-contiguous reference. Pointing actions in general have been found at higher frequency in conversations than in elicited narratives in Auslan and ASL, with the highest frequency of pointing found in casual conversations (Johnston, 2012, p. 171), which may help explain the results. The other 30 instances of framing with third person CA were 22 contiguous with a noun phrase (NP CA), and eight non-contiguously with a noun phrase (NP...CA).

In the category of non-contiguous reference in the conversational narratives as a whole, the 20 instances include 12 uses of quotative verbs distributed across four signers. These were mostly the quotative verb SAY, but also included two uses of ASK and one THINK. In other words, the use of a quotative verb is attested in the data from the conversational narratives, but quotative verbs are not great in number, and are not evenly distributed across signers. The uneven distribution suggests possible sociolinguistic factors influencing their use. 11 of the instances are used to frame constructed dialogue, and the instance of THINK is used as framing for a referent's thoughts. No instances are found of using quotative verbs for the framing of a referent's actions. Cormier et al. (2013b) theorized that quotative verbs in BSL were borrowed from English. Further studies would be needed to establish if the use of quotative verbs in Norwegian SL are a borrowing from Norwegian. It also may be that quotative verbs are an optional strategy that is more frequent in the conversational narratives due to a higher frequency of enacted utterances.

In all, the conversational narratives include a higher degree of non-contiguous reference. The use of quotative verbs, as well as more complex clauses with inserted, intervening material in the conversations, largely account for these findings. The remaining two instances of framing are DS CA, that is with only a depicting sign identifying the referent of the CA. Four bar charts summarizing and visualizing the results for switch reference vs. co-reference in both genres and across framing categories, are found in the Appendix. Figure 24 is for the Frog Stories, figure 25 for the conversational narratives, and in addition figure 26 for third person CA and figure 27 for self-CA.

7.4 NEW MENTIONS

As mentioned in the introduction to the results, new mentions were scarce in the material for both the Frog Stories and the conversational narratives. In the Frog Stories, there were only four referent introductions with CA. In the conversational narratives, there were only 13 referent introductions with CA. In the conversational narratives, new mentions amounted to thirteen instances of CA. The low number of new mentions is not surprising given that new mentions are more likely to be expressed with more conventional forms, for example lexical noun signs, and that enactment is seen more as a strategy for maintained referents, as well as for reintroduced referents (Ferrara et al., accepted; Hodge et al., 2019), which further aligns with general reference theory (Ariel, 1991; Givón, 1983b).

What is surprising is how these new mentions are framed, or rather – how some of them are not framed. In Cormier et al. (2013b, p. 133) there were no cases of unframed CA across the 102 first mentions in their elicited narrative data. In the Norwegian SL Frog Stories, three of four new mentions were as expected framed with a noun phrase (NP CA). One was unframed, but this seems contextually to be an instance of starting a story before remembering to establish the referents. In all, unframed CA for new referents was not expected, as new mentions are not cognitively accessible, and addressees need more information to retrieve them (Ariel, 1991; Givón, 1983b).

Of the 13 instances of new referents expressed with CA in the conversational narratives, seven were framed as one could expect for new referents: Three were framed contiguously with a noun phrase (NP CA), and four were framed non-contiguously with a noun phrase (NP...CA). The remaining six consisted of four unframed CA, and two contiguously framed with pronominal pointing (PP CA and CA PP). Pronominal reference used to introduce referents was also unexpected, as pronominal reference is used to mark referents of higher accessibility (Ariel, 1991). These findings, and the possible reasons for them, will be discussed further in section 8.7 in the following discussion.

7.5 SHORT SUMMARY OF THE FINDINGS

The findings from this study show that framed CA occurs with higher frequency in switch reference contexts than in co-reference contexts, across both narrative types, thus supporting the hypothesis. This study further shows that CA is unframed most of the time (74.6%), with slight distributional differences across the Frog Stories (80.8%) and in the conversational narratives (67.3%). The Norwegian SL signers retelling the Frog Stories often left periods of CA unframed in referent maintenance contexts (89.6%). In the conversational narratives, signers also often leave periods of CA unframed in maintained contexts, although to a lesser extent compared to the Frog Stories (77.6%).

The difference between the genres seems to be affected by the prevalence of self-CA in the conversational narratives, as maintained contexts in self-CA gives a percentage of 72.2% unframed CA, and third person CA gives a percentage of 87.1% unframed CA. In reintroduced contexts, framing is more common than in maintained contexts in both the Frog Stories and the conversational narratives, with 45.8% framing in reintroduced contexts in the Frog Stories, and 62.7% in the conversational narratives, further supporting the hypothesis. In addition, the results from the conversational narratives support the expectation that framing of CA would be more frequent than not framing in reintroduced contexts. The findings from the Frog Stories in reintroduced contexts does not fit this expectation, as unframed CA (54.2%) was more frequent than framed CA (45.8%) in this referential context.

In the Frog Stories, the framing mainly consists of framing with a NP, with contiguous framing with a NP amounting to 86% of the framing in the Frog Stories. In the conversational narratives, the most common framing category was framing with a pronominal point, with 71.7% framing with pointing across both contiguous and non-contiguous reference. The findings will be further discussed and explicated in section 8, “Discussion and conclusion” below.

8 DISCUSSION AND CONCLUSION

The following discussion will consider various aspects of the findings, and look more closely at possible reasons behind the results. First, the discussion will compare the narrative types in this study, i.e. elicited narratives vs. conversational narratives, and possible reasons for the differences found in the two types of narrative. Further, the discussion will consider possible reasons for the findings related to framing of CA in referentially maintained contexts, before a discussion on the prevalence of invisible surrogates in the narratives and how they may impact framing. Subsequently, the findings of this thesis will be compared with the study of Cormier et al. (2013b). Additionally, self-reference and the effects of person and number will be discussed, as well as factors from SL and SpL research that impact overt reference, and therefore may impact framing of CA. Lastly, the discussion will examine the unframed tokens of CA along with those framed by pronominal pointing found for new mentions as potential examples of agent defocusing constructions.

8.1 COMPARING NARRATIVE TYPES

Several studies from the literature review in section 5 have suggested possible effects of genre on overt reference, both in general, and with quotative content and CA (Cameron, 1998; Cormier et al., 2013b; Hodge et al., 2019; McKee et al., 2011; Wulf et al., 2002). Yet, the studies presented in section 5 have focused mostly on narrative vs. non-narrative text types (Cameron, 1998), interviews vs. spontaneous narratives in conversations (McKee et al., 2011) or have only looked at one text type, i.e. elicited narratives (Cormier et al., 2013b; Hodge et al., 2019; Wulf et al., 2002). Some of this research, as will be explicated in the next paragraph, has posited a few hypotheses and expectations regarding how explicit reference could pattern in language produced in conversational vs. elicited contexts. However, when comparing the findings from the elicited and conversational data examined in this study, the findings do not quite align with the expectations from these hypotheses.

For example, McKee et al. (2011, p. 395) hypothesized that the shared context in conversations could mean that less explicit reference would be needed between "genuine conversational interlocutors", and Cormier et al. (2013b) wrote that: "It may be that overt subjects are more common in reintroduced contexts in fictional narratives than in personal experience narratives." (Cormier et al., 2013b, p. 135). From these hypotheses, we might expect that the Norwegian SL conversation participants would share a degree of experiential

context and discourse context with their interlocutors, which might reduce the need for explicit reference, i.e. reduce the need for framing with CA. This hypothesis was not supported by the data, however, as signers framed more in maintained and reintroduced contexts in the conversational narratives than in the Frog Stories.

While signers' practices around framing of CA in maintained contexts are similar in the Frog Stories and for third person reference in the conversational narratives, with 10.4% framing in maintained contexts for the Frog Stories and 12.9% for third person CA, these similarities diverge in reintroduction contexts. The practices witnessed in reintroduced contexts therefore go against the expectations set out from the literature. In reintroduced contexts, the degree of framing in the Frog Stories was at 45.8%, while the conversational narratives were at 62.7%, with both self-CA and third person CA separately between 60-64% framing. Considering the expectations set out for the hypothesis in section 1.2, we would expect that framing in reintroduction contexts would occur more frequently than not framing in reintroduction contexts. The conversational narratives fit this expectation, while the framing in reintroduced contexts in the Frog Stories is at less than 50%.

The participants in the conversational narratives knew each other to various extents, and these relationships may have affected their framing of CA, because what they presume is given or new information for the other signer(s) is likely to affect their choices when referencing (Chafe, 1976; Givón, 1983b). These factors may affect the results in ways that are difficult to properly quantify. Other factors that may affect the results are general factors affecting reference, as mentioned by Cormier et al. (2013b): The length of the narrative and the number of referents involved. Cormier et al. (2013b, p. 135) wrote that longer narratives may lead to more 'subject' drop and that a larger number of referents may lead to the opposite.

In the conversations, each participant contributed several narrative sequences that varied in length. How the length of the sequences affect framing would therefore need further statistical analysis to properly quantify. Regarding the number of referents, as a conversational narrative is considered as *all* conversational content contributed by one signer, most of the conversational narratives surpass the number found in the Frog Stories, particularly the longer conversational narratives with the older signers. A greater number of referents may cause a greater need for disambiguation, a factor which is well known to affect overt reference (Ariel, 1991; Chafe, 1976; Givón, 1983b). A higher risk of interference from other referents due to a greater number of referents, is thus one probable factor for the increase in framing in the

conversational narratives. After all, the Frog Stories contain a rather controlled number of referents which are followed over time, with much of the CA being of the protagonist, i.e. the boy.

Another aspect which might help explain the lower degree of framing in the Frog Stories than in the conversational narratives, is the possibility of enacting unique characteristics of the referents. The narrative referents in the Frog Story are very diverse: There is a single human, i.e. the boy (one signer adds the boy's mother), a single dog, and (for most of the story) a single frog. The other characters are also diverse animals with characteristics that separate them from one another. It may seem unlikely that CA of something flapping its wings is a boy, a dog or a frog, just as walking with paws or quacking like a frog would be unusual behavior in an owl.

Real-world knowledge and logic is therefore something that can affect framing choices. Hodge et al. (2019) also comment on this: When signers refer to the glass jar in the Frog Stories, interactants are perhaps more likely to assume the frog is in the jar than the dog (Hodge et al., 2019, p. 50). Consequently, the way CA is enacted with characteristics typical of each species, combined with the signers' real-world knowledge about the referents that are referred to through visible and invisible surrogates, likely eases the cognitive load of (re)identifying the proper referent. The fact that the Frog Stories contain a controlled number of referents may also interact with this real-world knowledge, thus reducing the need for explicit reference by framing in reintroduced contexts.

In contrast, the referents in the conversational narratives are nearly all human, and therefore more similar to one another, in addition to the sheer number of possible referents in a conversation. Further, the narrative sequences in the conversational narratives are naturally less controlled and structured than any elicited narrative, which might cause signers to disambiguate more for the benefit of their interlocutors by increasing the degree of framing (c.f. Ariel, 1991; Chafe, 1976; Givón, 1983b), and thus frame with greater frequency than in the Frog Stories. In this way we see that the kinds of referents expressed with CA in the two genres are considered to likely affect how these instances of CA are framed.

It is easy to jump to the possible factor of an animacy-distinction between animal and human referents. However, the two main animal referents in the Frog Stories, and thereby the animal referents that are enacted the most, are the dog and the frog. These two referents were by Ferrara et al. (accepted) reanalyzed as human, due to their role as main characters which

exhibit individual identities, based on the work of Fraurud (1996), who showed that animal referents that are made prominent in a narrative, may attain individual identities and be treated similar to human referents. In other words, there may not be such a large difference in the animacy category of the referents in the Frog Stories vs. the conversational narratives as one might think. However, the possibility of enacting unique characteristics, which are based on the animacy of the referents insofar as different living creatures have distinctive characteristics typical of their species, seems to influence how easily retrievable the referent is, and as such how likely it is to be unframed.

8.2 FRAMING CONSTRUCTED ACTION IN MAINTAINED CONTEXTS

It is clear that signers choose not to frame CA the majority of the time when the referent is maintained in the Frog Stories. However, the percentage of CA that is framed in this context (10.4%) indicates that it is not necessarily infelicitous to frame CA when the referent of CA is maintained, and that it is not obligatory to avoid framing CA in maintained contexts in Norwegian SL. This is further underpinned by the results from the conversational narratives, where 22.4% of the CA in maintained contexts is framed. As mentioned in the findings section, the prevalence of self-CA and factors regarding person and number might help explain some of the differences observed between the results for the Frog Stories and the conversational narratives as a whole, which will be discussed further in section 8.5.

If we only focus on framing of CA in maintained contexts, some framing of CA is observed also when only comparing the Frog Stories and the third person CA in the conversational narratives. Specifically, 10.4% of CA in maintained contexts in the Frog Stories are framed, and 12.9% for third person CA in the conversational narratives. Some cases of framed CA in maintained contexts, across genres, may be affected by role shift. If two different characters were mentioned in the previous CLU, but only one of them was the referent of the CA, a switch in the referent of the CA in the next CLU might cause a higher chance of explicit framing. The part that role shift might play is not quantified in this study, and it should be noted that role shift without explicit framing is also attested in the data. Nevertheless, it is possible that frequent role shift causes more framing, due to frequent shifts causing a higher chance of referent ambiguity.

For the Frog Stories, some of the framed CAs in a maintained context are likely due to the nature of the narrative as well. A few of the referents in the Frog Story are first introduced in climactic parts of the narrative, which has also been commented on by Hodge et al. (2019)

who also used the Frog Story as material. Climactic introductions include e.g. the boy holding onto "twigs" which turn out to be deer antlers (figure 10), and something small jumping up to bite the boy turning out to be a prairie dog (often translated in Norwegian SL as different types of rodents, or a mole) shown in figure 12. The mole/prairie dog is often introduced with a depicting sign, before it is identified more explicitly with a plain noun in the following CLU. That is, the referent is introduced in a semantically underspecified way for discourse-pragmatic reasons, and is then explicitly identified with a noun phrase in the CLU *after* it is introduced. If this second, maintained CLU also contains CA, this will cause the CA of the mole to be framed with a NP in a maintained context. The next section will have a closer look at another form of reference in SLs which use may have affected the results: Invisible surrogates.

8.3 INVISIBLE SURROGATES

Working with the data material from the Norwegian SL corpus, it was also made clear that the way signers use the space around them for anaphoric reference affects referencing and also the framing of CA. While the use of space for doing reference is not particular to sign languages, as spoken languages also make use of gestural demonstrations with referents placed in the space around them (Kendon, 2014; Sidnell, 2006), the use of space in SLs as visual and gestural languages is arguably more pervasive. This is especially clear when looking at signers' use of invisible surrogates (see section 2.3 and 3.7 for invisible surrogates). Hodge et al. (2019, p. 47) also noted the frequent use of invisible surrogates in the Auslan Frog Stories.

The use of invisible surrogates permeate the narrative sequences in the conversational narratives as well as in the elicited narrative retellings. Invisible surrogates was one of many possible referencing strategies that could introduce, maintain and reintroduce referents in this study. As invisible surrogates were not the object of study for this thesis, their use has not been properly calculated. Nevertheless, the presence of invisible surrogates in the narrative sequences in the conversations is undeniable. Invisible surrogates seem to interact with other discourse factors in a way which can make invisible surrogates highly informative and easily identifiable in some contexts, and in other contexts may be used by signers in a way that is purposefully obtuse – where the invisible surrogate is underspecified in introduced or reintroduced contexts in the sense that it is clear someone or something is there, but it is not

yet clear *what* or *who*. E.g. the example of the deer in the Frog Stories, whose antlers were first thought to be twigs (see figure 10).

Similarly to the example with the mole in section 8.2, this use of underspecified invisible surrogates to introduce or reintroduce referents may cause a higher degree of framing in the next CLU (which means the referent is then maintained), as the identity of the invisible surrogate is made explicit for example by the use of a noun phrase, *after* an underspecified (re)introduction as an invisible surrogate. The example of PP CA in figure 17 is also an example of a new referent being introduced as an invisible surrogate, as it is clear the signer (who is enacting their childhood story), is looking up at and talking to people, but we do not yet know exactly who they are. The group of people that the signer was talking to ("all the big ones" at school) were explicitly identified with a noun phrase in the next CLU over. This CLU contained CA of "all the big ones", which caused that CA to be analyzed as NP CA in a maintained context.

Invisible surrogates may also be highly informative, in the sense that identifying who or what is denoted by the invisible surrogate is very easily retrievable. Another example from the Frog Stories is a narrative sequence with the boy and the dog looking for their pet frog. With the glass bowl around its head, the dog looks out the window and falls down. The boy then comes out of the house to pick up the dog. When the signers enact the boy, who is picking up and holding the dog, the dog is the invisible surrogate, as seen in figure 21 below.

Figure 21:
Example of constructed action of the boy in the Frog Story, who is holding the dog.

(Ferrara and Halvorsen (2021): RPH12_ES_Frosk2.mpf. BT: 00:01:16.970, ET: 00:01:17.910))

The example in figure 21, seen without context, might as well have signified a parent holding their baby, or anything that requires holding the arms in such a position. Yet it is contextually obvious that it is enactment of the boy holding the dog, and not something else. As such, the

dog as an invisible surrogate is highly informative and the referent is therefore very easily retrieved. The next CLU in the video file, following the enactment in figure 21, contained unframed CA of the dog licking the boy's face. The CA in that CLU was consequently analyzed as unframed CA in a maintained context, as the dog was referenced as an invisible surrogate in the previous CLU. The degree of informativeness of invisible surrogates is therefore likely to affect the framing of referents in maintained contexts, in the sense that: CA to express maintained referents where the referent is first an unspecified invisible surrogate in the previous CLU, might cause a higher chance of framing of CA, while CA in a maintained context where the referent of the CA was a highly informative invisible surrogate, might decrease the chance of the CA being framed.

8.4 COMPARISON WITH CORMIER ET AL. (2013)

In the Cormier et al. (2013) study on framing of CA in BSL, only 12% of the CA with reintroduced referents were unframed, in contrast with this study's 54.2% unframed CA for reintroduced referents in the Frog Stories, and 37.3% for the conversational narratives. Differences in the length of the stories and the number of referents might account for some of the difference, as Cormier et al. (2013b) used shorter narrative clips with few referents for their study (three referents per clip). The Frog Stories and the conversational narratives analyzed here both include longer narrative sequences with a larger amount of referents than the clips in Cormier et al. (2013b). Cormier et al. (2013b) hypothesized that longer narratives would induce less framing, and that more referents would induce more framing.

These two factors then might compete in narratives that are both longer *and* include a greater range of referents. It is thus hard to quantify their individual effect for the sample in this study vs. the sample in Cormier et al. (2013b). Nonetheless, the lower degree of framing in the Frog Stories vs. the clips used by Cormier et al. (2013b) give an indication that perhaps telling one coherent narrative over a "longer" period of time (minutes as opposed to seconds), has a greater bearing on the divergent results than the number of referents. This is keeping in mind that the range of referents in the Frog Stories is also quite controlled. The original story by Mayer (1969) contains nine animate referents, if the frog's partner and children are each considered one referent. Not all animate referents are consistently referenced through CA by the signers, and additionally some signers compress their re-telling, and do not include every referent from the original story. In other words, the difference in the number of referents may

not be as great between the Frog Stories and the Cormier et al. (2013b) clips, as the difference in narrative coherence and length.

In addition, and not barring possible differences between the two SLs, it may be that the choice by Cormier et al. (2013b) of looking at a switch in reference only regarding a switch in actor, explains part of the difference in results. With their annotation scheme, they found a higher amount of framing in both maintained and reintroduced contexts than this study (Cormier et al., 2013b). It is possible that whether or not a referent of CA was the 'subject' (actor) in the previous CLU(s) affects framing of CA to a greater degree than whether or not the referent of CA was mentioned in another role in the previous CLU. In other words, what matters most regarding framing might be whether or not the referent of CA was the profiled participant in the previous clause. If it was mentioned, but not profiled in the sense of a 'subject', and another referent was, signers might be more likely to explicitly frame the switched 'subject' referent, also aligning with Givón (1983b). In order to study this, the data material would first need to be annotated for 'subject' status in the sense of RRG.

What is perhaps just as likely, is that the factors of 'subject', co-reference and switch reference, the referential aspects of CA, and how a referent was mentioned in the last CLU (and perhaps earlier in the discourse) are factors that all interact in more complex ways, which includes the factors discussed so far. This study found more unframed CA in maintained contexts than Cormier et al. (2013b) as well, which is an indication that how and if the referent was mentioned in the previous CLU does have an effect on the absence of framing, also when the referent of CA was not necessarily the 'subject' in the previous clause. The next section will explore more closely how framing with CA may be affected by the person and number of the referents, more specifically first person singular vs. third person reference.

8.5 SELF-REFERENCE – EFFECTS OF PERSON AND NUMBER

The results for framing in periods of self-CA also give an interesting insight into signers' referencing choices when talking about themselves. Given the possibility of zero anaphora, signers still choose to frame CA of themselves more in maintained contexts compared with their framing of CA of third person referents in maintained contexts. At first glance this might seem illogical, as maintained contexts have been found to disfavor overt reference, and due to overt reference being disfavored in clauses with constructed action (McKee et al., 2011; Wulf et al., 2002). Yet, earlier research on other SLs has found that first person singular pronominals are more likely to be present than third person pronominals (McKee et al., 2011;

Wulf et al., 2002). As mentioned in section 5.1.3, McKee et al. (2011, p. 389) found that third person disfavors explicit 'subject', and first person singular was found to favor 'subject' presence in their study of Auslan.

McKee et al. (2011) noted that while the results might be surprising given "… the salience of the body as an implicit first-person subject in the verb structures of many signed languages" (McKee et al., 2011, p. 393), similar findings have been provided from studies on spoken languages with extensive use of null subjects, such as Spanish (Cameron, 1992; Flores-Ferrán, 2007). Therefore, the findings of this study align with Wulf et al. (2002) and McKee et al. (2011) on overt reference in SLs, as well as SpL studies that have found that first person reference is more likely to be overt than third person, both in referencing in general (Flores-Ferrán, 2007), and with quotatives (Cameron, 1998).

The further question is when signers choose to frame CA of themselves in maintained contexts, and when they do not. Factors found to affect overt pronoun reference in SpLs might give an indication of possible cross-linguistic factors that can help explain the use of first person singular framing in maintained contexts in Norwegian SL. Readers should keep in mind that the pointing actions known as pronominal pointing in this thesis may not be sufficiently comparable to SpL pronouns in every way, as explained in section 6.3.3 on pronominal pointing. Known factors that affect reference with pronouns in SpLs may still have some bearing cross-linguistically, as both pronouns in SpLs and the self- and other-directed pointing found in SLs are instantiations of self- and other-directed reference.

8.6 OTHER FACTORS AFFECTING OVERT REFERENCE

This part of the discussion will look at which factors other than switch reference vs. co-reference and person and number have been found to affect overt reference and framing in SLs and SpLs. This section will focus on discussing the factors considered most likely to affect the framing of CA in Norwegian SL, and therefore may be included as variables in future studies.

8.6.1 Language contact

One factor shown to affect overt reference cross-linguistically is that of language contact, which has been much researched for Spanish (Flores-Ferrán, 2007; Silva-Corvalán, 1994) and has been found to affect overt reference in ASL and Auslan (McKee et al., 2011; Wulf et al., 2002). Language contact is thus a factor which is likely to impact the degree of overt

reference and framing for Norwegian SL as well, considering contact with spoken and written Norwegian. Norwegian is a language known to require expression of subject referents[14], and is a language that makes use of formal subjects (Hagemann, 2021). One could therefore theorize that contexts with local influence from Norwegian will show increased degree of framing, due to the required expression of grammatical subjects in Norwegian.

8.6.2 Sociolinguistic factors

Sociolinguistic factors such as age and gender are known factors that affect overt reference in other languages (Flores-Ferrán, 2007). Especially age is a factor which should be studied further for possible effect on framing of CA in Norwegian SL, as age was found as a factor affecting overt subject presence in ASL, and slightly so for New Zealand Sign Language (McKee et al., 2011; Wulf et al., 2002). The use of CA in general has also been linked to the age of the signers in Finnish SL, where older signers use more overt CA (Puupponen et al., 2022). Age has further been linked to the degree of unframed demonstrations in spoken English and Spanish (Palacios Martinez, 2013). While different languages seem to pattern differently regarding which age groups use more overt reference or overt demonstrations/CA, age is shown as a significant sociolinguistic factor in several unrelated languages, and is thereby considered likely to affect framing of CA in Norwegian SL.

8.6.3 Clause types

Studies looking at the syntactic structure of clauses that contain demonstrations/CA are scarce. Cameron (1998) did find that syntactic factors such as clause types and different contexts of embedding affected framing of Spanish quotatives, as seen in section 5.2.1. To reiterate: Embedded demonstrations (i.e. constructed action) within constituents, such as saying the lexical verb for crying followed by the demonstration of the sound of crying, were all unframed. On the other hand, quotations embedded in subordinate clauses before a matrix clause were all framed, usually with a verb of report (Cameron, 1998, p. 54). This factor might have some bearing on the framing of CA, and especially the CA that occurs in the conversational narratives, due to more complex clause structures with more embedding and inserts occurring with CA in the conversations. Clause structure in Norwegian SL is still understudied, and clause structure is a debated question in SL literature in general (Johnston,

[14] While subject expression is considered required in traditional accounts of Norwegian grammar, subject ellipses are fairly widespread in certain contexts in spoken Norwegian: When the name of the subject referent is considered sensitive content in the discourse, or when the identity of the subject is considered unimportant or contextually obvious (Stjernholm, 2008).

2019a). More research on the very basis of clause structure and syntactic structure in Norwegian SL would need to be undertaken in order to study how the framing of CA in Norwegian SL is affected by clause types, and by the clause structure of clauses with CA.

8.6.4 Topicality, contrast and specificity

Further, discourse-pragmatic factors are also likely to have an impact on the framing of CA in Norwegian SL, as they are found to affect overt reference in other languages that allow for null arguments. Discourse-pragmatic factors known to affect overt reference in SpLs include topicality, contrast and specificity (Azar et al., 2018; Flores-Ferrán, 2007), as mentioned in section 5.1.2. The factors of topicality and contrast are perhaps fruitful concepts for further study, as topic-constructions are well known in several SLs (see e.g. Engberg-Pedersen, 2002; Johnston, 2019b; Liddell, 2003). Also presented in section 5.1.2: In spoken Turkish, a language which also favors zero anaphora for highly accessible referents, the use of overt pronouns were found to be most strongly linked with factors such as topicality, contrast and emphasis, more so than whether the referent was maintained vs. reintroduced (Azar et al., 2018).

It may be that these factors are also evident in SLs as null argument languages (Engberg-Pedersen, 2002; Jantunen, 2008; Johnston, 2019a; Lillo-Martin, 1991), as well as in Turkish (Azar et al., 2018). The discourse-pragmatic factors found to affect overt reference in Turkish, may thus give an indication of when signers frame self-CA, if we assume possible cross-linguistic similarities between pro-drop/null argument languages. It would be interesting to see if and/or how the referent of the CA being pragmatically marked as e.g. a narrative topic, or marking similarity or contrast with other referents, might affect overt reference with CA in Norwegian SL. The last factor, that of specificity, concerns whether a pronoun is used as uniquely referring or in a non-specific or generic way. The use of generic reference takes us into the last part of the discussion, which is CA used as an agent defocusing strategy.

8.7 AGENT DEFOCUSING

Another interesting aspect regarding the results from the conversational narratives in particular, are the instances of CA expressing new referents that are marked with higher accessibility markers, i.e. pronominal pointing and zeros (unframed CA), as mentioned in the findings section (section 7.4). Thirteen instances of CA for first mentions occurred, and the likely assumption was that they would be framed with a noun phrase, due to factors of

referent accessibility as mentioned in section 6.4. Yet, four of the CAs for new referents were unframed, and two were framed through the use of a pronominal point. The six instances from the sample occurred across five signers, and thus do not seem to be based on the idiosyncrasies of one signer.

These tokens are clearly unusual results considering that new referents are typically expressed with phonologically heavier expressions, i.e. expressed more explicitly than reintroduced or maintained referents (Ariel, 1991). What becomes clear when looking more closely at each instance is that either the referent's identity is seemingly not important or in focus in the story, or that the CA seems to represent a generalized referent group, that is the reference is impersonal/generic. In other words, the instances seem to function as agent defocusing constructions. That CA can be used as agent defocusing was presented in section 3.8, by the research of Rankin (2013) and Nordlund (2019).

Summarizing, constructed action can be used to make the agent prominent without specifying the agent's identity, thus reducing the agent's focus. Reducing agent focus could also be achieved by semantically underspecifying overt subjects, for example by using pronouns with underspecified reference (Rankin, 2013, pp. 56-57). Nordlund (2019) found the same strategies for Finnish SL, and wrote that CA can be used to tell the story from the agent's or the patient's perspective (Nordlund, 2019, p. 1). Figure 22 below is an example of PP CA where the referent of the pronominal point was a new referent. This instance may be analyzed as a form of agent defocusing, by the use of a semantically unspecified pronominal point to reduce the focus on the agent. The signer might have chosen a less accentuated form of reference due to the point being what was said, with less focus given to who exactly said it.

Figure 22: Example of agent defocused PP CA, from one of the conversational narratives. (Ferrara and Bø (2015 (collection date)): P-OO1_ES.eaf. BT: 00:37:17.338, ET: 00:37:19.192)

Context: The signer tried to speak to a man in spoken Norwegian, but the man did not understand and told her he did not speak Russian. In the example CLU, the signer is enacting someone else, who told the man that the signer was deaf. The identity of the 'someone' is not relevant to the story, rather the story centers around the hearing man and the signer. The identity of the 'someone' is not specified further than a mouthing of the Norwegian word "hun" ("she") along with the point, and the person has not been previously introduced. The pointing actions, i.e. the initial third person singular point ('someone'/'she'), the second person singular point ('hearing man') and the final two instances of third person singular points ('the signer') are further distinguished from each other by different spatial locations in the signing space, in addition to being outside of, or within, the frame of the constructed dialogue.

There are also examples of unframed CA where the signer takes on the role of the agent, who is prominent but unspecified. An example is provided in figure 23 below**.**

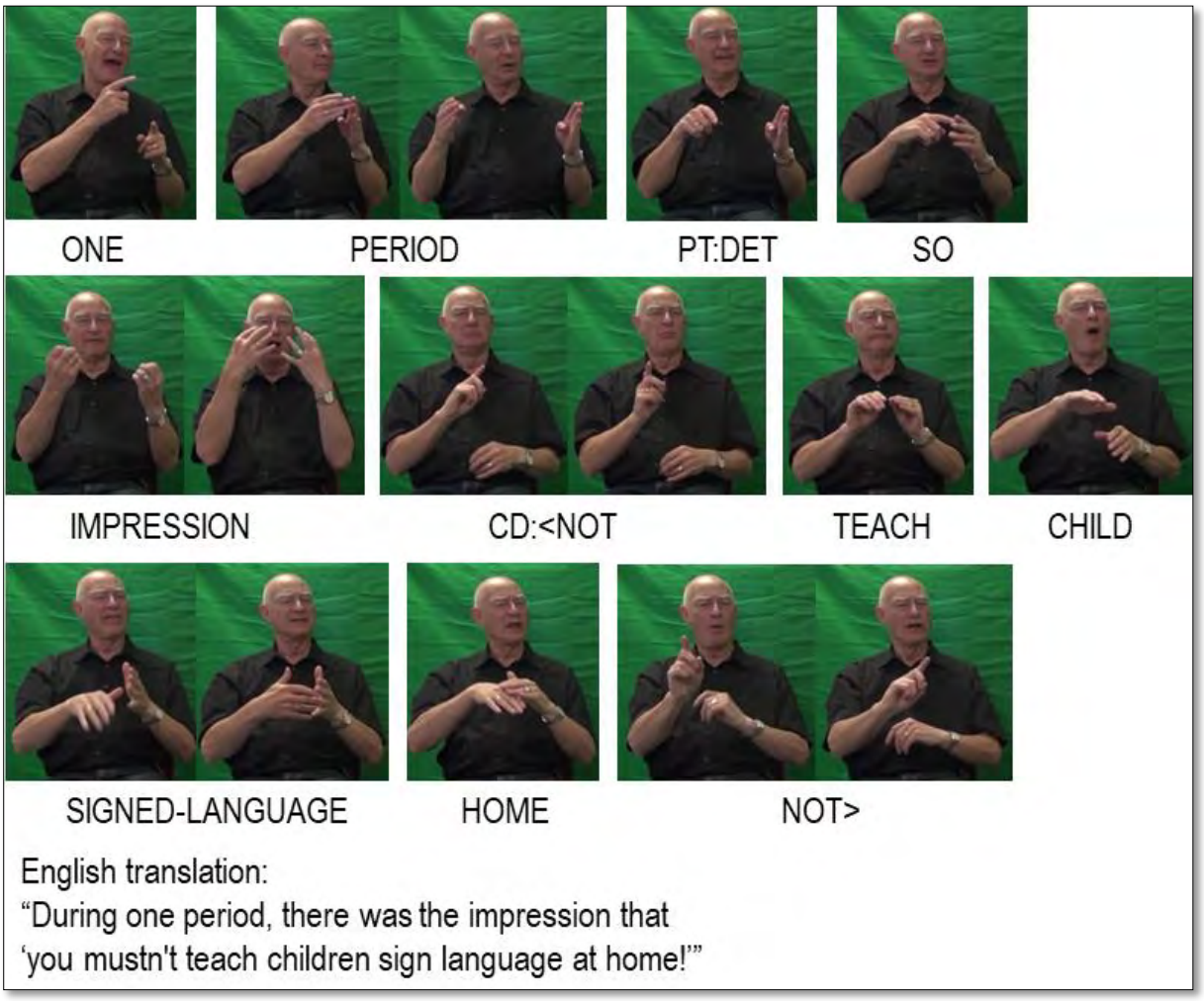

Figure 23: Example of CA with defocused agent, from one of the conversational narratives. (Ferrara and Bø (2015 (collection date)): P-BO1_TR.eaf. BT: 00:12:31.983, ET: 00:12:37.985)

In figure 23, the < > mark the start and endpoint of the constructed dialogue, where the signer takes on the role of an unspecified person uttering the statement: "You mustn't teach children sign language at home!" This may be said to constitute an example of agent defocusing, as the utterance is of the essence, and the signer takes on the role of a generalized 'utterer' of the statement. Once I became aware of agent defocusing as a possible element in the conversational narratives, the question arose whether several instances of unframed self-CA both in maintained and reintroduced contexts might be better analyzed as the signer overlapping with a generalized character, rather than as true CA of themselves. These were cases where the signers enacted something they had done themselves or been a party to, but

the focus did not seem to be on the signer as the doer of the actions, but rather on how the actions were performed in general.

In one of the stories of the older signers, a signer expresses a long stretch of unframed CA, showing what one had to do to get extra chocolate out of old vending machines. Another signer has a sequence of unframed CA showing how to pay for parking at the parking machines at an airport. Both of these examples, and more like them, could perhaps better be analyzed as agent defocusing constructions functioning somewhat similarly to passives, (though with more prominent referents) or other agent defocusing constructions in spoken languages, i.e. would perhaps be translated with "it was done like this…" or "you had to do like this…" rather than "*I* did it like this…"

Summarizing, the discussion of this thesis has considered how factors such as narrative type may affect the framing of CA, as well as how framing in maintained contexts may be explained and the way invisible surrogates may affect framing of CA. The discussion section has further looked at how this study on Norwegian SL compares to the study of Cormier et al. (2013b) on BSL, and has considered other factors known to affect overt reference and how they may affect framing of CA, including - but not limited to - factors of person and number. Lastly the discussion has explored how CA as an agent defocusing construction may explain some of the unexpected findings of pronominal reference and unframed CA in introductions. The next two sections will conclude this master's thesis, with a section on the contributions and implications of this study, as well as a section on the limitations of the study and suggestions for possible future research.

8.8 CONTRIBUTIONS AND IMPLICATIONS OF THE STUDY

This thesis has contributed with the first in-depth study of CA in Norwegian SL, and the first research on the framing of CA in Norwegian SL. The study is also the first to directly compare the framing of CA in elicited material vs. spontaneously occurring CA in casual conversations in any SL, and thereby the first to study the similarities and differences concerning how these two genres pattern regarding framing of CA. This study can also be seen as expanding the focus on, and emphasizing the importance of, invisible surrogates and their referential function in SLs, following Hodge et al. (2019).

Additionally, the findings of this thesis advance previous research on CA as a way to express other language functions, by highlighting that CA is not just a narrative tool to "liven" up the

narrative, but rather an integral discourse strategy with several functions, including agent defocusing. This thesis further contributes knowledge on how CA seems to be used as an agent defocusing construction in Norwegian SL, following the research of Rankin (2013) on ASL, and presents the first examples of how CA is used as an agent defocusing construction in Norwegian SL. In addition, this thesis is a contribution to the field of switch reference studies in general, as the findings show that switch reference vs. co-reference constrains the use of overt reference with CA in Norwegian SL.

Norwegian SL has been subject to relatively few linguistic studies, and any research on how signers of Norwegian SL carry out the act of referencing is therefore a contribution to knowledge about this language. This research on the framing of CA in Norwegian SL represents a part of the implicit knowledge of the first language users, made explicit. Subsequently, the knowledge can be more easily passed on to others who are learning or who wish to learn the language. In this way, expanding the explicit knowledge of the language can help expand the knowledge of language learners, particularly second language learners who study to become interpreters or teachers for the deaf.

One aspect of the findings from this research that is especially important in this regard, is the amount of unframed CA that occurs in the material studied, also in switch reference. In essence, when there has been a switch in reference, explicit reference is more likely to occur, but as unframed CA is common across activation statuses, signers seem to rely quite heavily on discourse-pragmatic factors and the referential aspects of CA to guide interlocutors in identifying the referent of the CA. Consequently, learners of Norwegian SL cannot rely on signers explicitly framing the referent of the CA with e.g. nouns, even if there has been a switch in reference. Furthering the implications for second language learning: The number - and use of - CA in the conversational narratives also show that CA is a discourse strategy which can be quite frequent in casual conversations, and not just in elicited narrative settings. This emphasizes the importance of learning to use CA, and understand the use of CA, for second language learners. The importance is emphasized for interpreting students, who need to quickly and correctly identify who is doing what, and to whom, when interpreting from SL to SpL.

8.9 LIMITATIONS OF THE STUDY AND FUTURE RESEARCH

This study is necessarily limited by the availability of data, as a larger amount of data would be preferable to ascertain more fully the general reference choices of the Norwegian SL signers. Yet, by working with data from conversations in addition to elicited content, and including data from ten signers for both narrative types, this study uses a wider and more representative range of data than what has been common for such research. In consequence, this thesis is a step in the direction of more representative, and more naturalistic, SL research. The study is also somewhat limited by the use of simple, descriptive statistics rather than more advanced statistic methods. As a starting point and the first overview of the topic in Norwegian SL, the method is still considered adequate. It provides a foundation on the topic in Norwegian SL, and can function as a building block for more advanced statistic research in the future.

In addition to hopes that the framing of CA in Norwegian SL can be studied with more advanced statistical methods, I hope that further research on CA in Norwegian SL can give other insights into the use of this iconic discourse strategy. Further studies on how CA as visible surrogates interact with invisible surrogates, and with the discourse context, is necessary to establish fully how signers use the space around them for doing reference. Preferably, more research should be done using corpus data from conversations to achieve a holistic view on how visible and invisible surrogates are employed by signers for referential purposes, in both Norwegian SL and in other SLs.

Other factors from SpL research such as language contact, sociolinguistic factors, and other factors related to grammar and discourse functions that are known to affect overt reference in other languages, whether signed or spoken, may be possible to add as variables for future research on the framing of CA in Norwegian SL, to quantify their individual effect. The use of CA as an agent defocusing construction is also a fruitful field of future research. Hopefully future studies can look further into the phenomenon in Norwegian SL, and thereby further the research and knowledge of Norwegian SL. Lastly, I hope that this study can help to further emphasize that constructions which are inherently iconic in nature can carry grammaticalized functions on a par with conventionalized structures that are arbitrary in nature, something which SL linguists and multimodality researchers are well aware of, but society at large and certain facets of linguistic theory seem less inclined to accept. In the words of Kendon (2014):

> “We like to make a point of the arbitrariness of language, as if this is something that makes it superior to systems that are not arbitrary. Why this should be so, I am not sure.”
>
> (Kendon, 2014, p. 2)

REFERENCES

Ariel, M. (1991). The function of accessibility in a theory of grammar. *Journal of Pragmatics*, *16*(5), 443-463.

Azar, Z., Backus, A., & Özyürek, A. (2018). General- and Language-Specific Factors Influence Reference Tracking in Speech and Gesture in Discourse. *Discourse Processes*, *56*(7).

Bø, V. (2010). *Verb Sandwich Constructions in Norwegian Sign Language. A syntactic analysis* Universitetet i Oslo [University of Oslo].

Cameron, R. (1992). *Pronominal and null subject variation in Spanish: constraints, dialects, and functional compensation* [University of Pennsylvania].

Cameron, R. (1998). A variable syntax of speech, gesture, and sound effect: Direct quotations in Spanish. *Language Variation and Change* (10), 43-83.

Chafe, W. L. (1976). Givenness, Contrastiveness, Definiteness, Subjects, Topics, and Point of View. In C. Li (Ed.), *Subject and Topic* (pp. 27-55). Academic Press, Inc.

Clark, H. H. (2016). Depicting as a method of communication. *Psychological review*, *123*(3), 324-347.

Clark, H. H., & Gerrig, R. J. (1990). Quotations as demonstrations. *Language*, *66*(4), 764-805.

Cormier, K., Quinto-Pozos, D., Sevcikova, Z., & Schembri, A. (2012). Lexicalisation and de-lexicalisation processes in sign languages: Comparing depicting constructions and viewpoint gestures. *Language & Communication*, *32*(4), 329-348.

Cormier, K., Schembri, A., & Woll, B. (2013a). Pronouns and pointing in sign languages. *Lingua*, *137*(December 2013), 230-247.

Cormier, K., Smith, S., & Sevcikova-Sehyr, Z. (2015). Rethinking constructed action. *Sign Language & Linguistics*, *18*(2), 167-204.

Cormier, K., Smith, S., & Zwets, M. (2013b). Framing constructed action in British Sign Language narratives. *Journal of Pragmatics*, *55*(September 2013), 119-139.

Crasborn, O., Bank, R., Stoop, W., Komen, E., Hulsbosch, M., & Even, S. (2020). Global Signbank. In.

Crasborn, O., & Sloetjes, H. (2008). Enhanced ELAN functionality for sign language corpora. Proceedings of LREC 2008, Sixth International Conference on Language Resources and Evaluation,

Davydova, J. (2019). Quotative like in the Englishes of the Outer and Expanding Circles. *World Englishes*, *38*(4), 578-592.

Debreslioska, S., Özyürek, A., Gullberg, M., & Perniss, P. (2013). Gestural viewpoint signals referent accessibility. *Discourse Processes*, *50*(7), 431–456.

Dingemanse, M. (2015). Ideophones and reduplication: Depiction, description, and the interpretation of repeated talk in discourse. *Studies in Language*, *39*(4), 946-970.

Dudis, P. G. (2004). Body partitioning and real-space blends. *Cognitive Linguistics*, *15*(2), 223–238.

Eberhard, D. M., Simons, G. F., & Fennig, C. D. (2022). Ethnologue: Languages of the World. In (Twenty-fifth edition ed.). Dallas, Texas: SIL International.

ELAN (Version 6.0) [Computer software]. In. (2020). Max Planck Institute for Psycholinguistics, The Language Archive, Nijmegen, The Netherlands. Retrieved from https://archive.mpi.nl/tla/elan

Emmorey, K. (2002). *The Structure of American Sign Language: Linguistic Universals and Modality Effects*. Lawrence Erlbaum Associates.

Emmorey, K., & Reilly, J. S. (1998). The development of quotation and reported action: Conveying perspective in ASL. Proceedings of the twenty-ninth Annual Child Language Research Forum, Stanford, CA.

Enfield, N. J. (2009). *The Anatomy of Meaning: Speech, Gesture, and Composite Utterances*. Cambridge University Press.

Engberg-Pedersen, E. (1993). *Space in Danish Sign Language*. Signum Press.

Engberg-Pedersen, E. (1995). Point of view expressed through shifters. In K. Emmorey & J. S. Reilly (Eds.), *Language, gesture, and space* (pp. 133–154). Lawrence Erlbaum.

Engberg-Pedersen, E. (2002). Grammatical relations in Danish Sign Language: topic and subject. In A. Pajunen (Ed.), *Mimesis, sign, and the evolution of language* (pp. 5-40). University of Turku.
Erlenkamp, S. (2009). "Gesture verbs". Cognitive-visual mechanism of "classifier verbs" in Norwegian Sign Language. *CogniTextes*, *3*.
Erlenkamp, S. (2011). Grunntegnstilling i norsk tegnspråk. *Norsk Lingvistisk Tidsskrift,*, *29*(1), 87-116.
Fauconnier, G., & Turner, M. (1996). Blending as a central process of grammar. In A. Goldberg (Ed.), *Conceptual Structure Discourse and Language* (pp. 113–130). CSLI Publications.
Fenlon, J., Cooperrider, K., Keane, J., Brentari, D., & Goldin-Meadow, S. (2019). Comparing sign language and gesture: Insights from pointing. *Glossa: a journal of general linguistics*, *4*(1), 1–26.
Fenlon, J., Schembri, A., Johnston, T., & Cormier, K. (2015). *Documentary and Corpus Approaches to Sign Language Research*. Wiley Blackwell.
Ferrara, L. (2019). *Language use in the Norwegian deaf community: Reflections of a signed language ecology. Project description for research project under Young Research Talents, The Research Council of Norway*.
Ferrara, L. (2021). Norwegian Signbank. In *Global Signbank* (2020 ed.): In Crasborn, Onno, Bank, Richard, Stoop, Wessel, Komen, Erwin, Hulsbosch, Micha, & Even, Susan (eds).
Ferrara, L. (in prep.). *Norwegian Sign Language Corpus. Unpublished video recordings and annotation files*.
Ferrara, L. (n.d.). *Annotation guidelines draft for: Referencing across signed languages: a cross-linguistic study of doing reference while story-telling.* . Norwegian University of Science and Technology (NTNU).
Ferrara, L. (unpublished annotation guidelines, updated January 2022). *Annotating Norwegian Sign Language Corpora*.
Ferrara, L., Anible, B., Hodge, G., Jantunen, T., Leeson, L., Mesch, J., & Nilsson, A.-L. (accepted). A cross-linguistic comparison of reference across five signed languages.
Ferrara, L., Anible, B., & Kalvenes Anda, L. M. (accepted-b). Exploring sign-writing contact and multilingualism in the Norwegian deaf community. In E. Wehrmeyer (Ed.), *Advances in sign language corpus linguistics*. John Benjamins.
Ferrara, L., & Bø, V. (2015 (collection date)). *A pilot corpus of Norwegian Sign Language. Unpublished video recordings and annotation files*.
Ferrara, L., & Halvorsen, R. P. (2017). Depicting and describing meanings with iconic signs in Norwegian Sign Language. *Gesture*, *16*(3), 375-399.
Ferrara, L., & Halvorsen, R. P. (2021). *Norwegian Sign Language Corpus - Halvorsen (2012)*. http://hdl.handle.net/11509/141
Ferrara, L., & Johnston, T. (2014). Elaborating Who's What: A Study of Constructed Action and Clause Structure in Auslan (Australian Sign Language). *Australian Journal of Linguistics*, *34*(2), 193-215.
Ferrara, L., & Ringsø, T. (2019). Spatial Vantage Points in Norwegian Sign Language. *Open Linguistics*, *5*, 583-600.
Flores-Ferrán, N. (2004). Spanish subject personal pronoun use in New York City Puerto Ricans: Can we rest the case of English contact? *Language Variation and Change*, *16*(March 2004).
Flores-Ferrán, N. (2007). Bend in the Road: Subject Personal Pronoun Expression in Spanish after 30 Years of Sociolinguistic Research. *Language and Linguistics Compass*, *1*(6), 624-652.
Fraurud, K. (1996). Cognitive Ontology and NP Form. *Pragmatics & Beyond New Series*, *65*.
Frederiksen, A. T., & Mayberry, R. I. (2016). Who's on First? Investigating the referential hierarchy in simple native ASL narratives. *Lingua*, *180*(September 2016), 49-68.
Garcia, B., & Sallandre, M.-A. (2020). Contribution of the Semiological Approach to Deixis–Anaphora in Sign Language: The Key Role of Eye-Gaze. *Frontiers in Psychology*, *11*, Article 583763.
Givón, T. (1983a). Topic Continuity in Discourse: An Introduction. In T. Givón (Ed.), *Topic Continuity in Discourse: A Quantitative Cross-Language Study*. John Benjamins Publishing Company.

Givón, T. (1983b). Topic continuity in discourse: The functional domain of switch reference. Switch reference and universal grammar: Proceedings of a symposium on switch reference and universal grammar, Winnipeg, May 1981.
Greftegreff, I. (1991). *Håndformer og håndformendringer i norsk tegnspråk: en innledende undersøkelse av foneminventaret [Hand shapes and hand shape changes in Norwegian Sign Language: An introductory study of the phoneme inventory]* Universitetet i Trondheim [University of Trondheim].
Greftegreff, I. (1992). Orientation in indexical signs in Norwegian Sign Language. *Nordic Journal of Linguistics*, *15*(2), 159-182.
Greftegreff, I., Handberg, T.-B., & Schröder, O.-I. (2015). Norwegian Sign Language. In J. B. Jepsen, G. De Clerck, S. Lutalo-Kiingi, & W. B. McGregor (Eds.), *Sign Languages of the World. A Comparative Handbook*. De Gruyter Mouton.
Gundel, J. K., Hedberg, N., & Zacharski, R. (1993). Cognitive Status and the Form of Referring Expressions in Discourse. *Language*, *69*(2), 274-307.
Hagemann, K. (2021). Subjekt (grammatikk) [Subject (grammar)]. In *Store norske leksikon [Great Norwegian Encyclopedia]*. Retrieved May 9th 2022, from https://snl.no/subjekt_-_grammatikk
Halvorsen, R. P. (2012). *Tre diskursmarkører i norsk tegnspråk: En studie av blunk, blikkendring og nikk i åtte fortellinger [Three discourse markers in Norwegian Sign Language: A study of blinking, change of gaze and nods in eight narratives]* Universitetet i Oslo [University of Oslo].
Haualand, H. (2015). *Grunnskole for tegnspråklige elever [Primary school for signing students]* (Fafo-notat 2015:01 [Note by the research foundation Fafo 2015:01], Issue.
Hickmann, M., & Hendriks, H. (1999). Cohesion and anaphora in children's narratives: A comparison of English, French, German, and Mandarin Chinese. *Journal of Child Language*, *26*(2), 419-452.
Hockett, C. F. (1960). Logical Considerations in the Study of Animal Communication. In W. E. Lanyon & W. N. Tavolga (Eds.), *Animal Sounds and Communication* (Vol. Symposium Series no. 7, pp. 392-430).
Hockett, C. F. (1978). In Search of Jove's Brow. *American Speech*, *53*(4), 243-313
Hodge, G., Ferrara, L., & Anible, B. (2019). The semiotic diversity of doing reference in a deaf signed language. *Journal of Pragmatics*, *143*(April 2019), 33-53.
Huang, C. T. J. (1984). On the distribution and reference of empty pronouns. *Linguistic Inquiry*, *15*(4), 531-574.
Jantunen, T. (2008). Fixed and Free: Order of the Verbal Predicate and Its Core Arguments in Declarative Transitive Clauses in Finish Sign Language. *SKY Journal of Linguistics*, *21*, 83–123.
Janzen, T. (2004). Space rotation, perspective shift, and verb morphology in ASL. *Cognitive Linguistics*, *15*(2), 149–174.
Janzen, T. (2008). Perspective shifts in ASL narratives: The problem of clause structure. In A. Tyler, Kim, Yiyoung., Takada, Mari. (Ed.), *Language in the context of use: Discourse and cognitive approaches to language* (pp. 129-154). Mouton de Gruyter.
Johnston, T. (2012). Lexical Frequency in Sign Languages. *The Journal of Deaf Studies and Deaf Education*, *17*(2), 163–193.
Johnston, T. (2013). Formational and functional characteristics of pointing signs in a corpus of Auslan (Australian sign language): Are the data sufficient to posit a grammatical class of 'pronouns' in Auslan? *Corpus Linguistics and Linguistic Theory*, *9*(1), 109-159.
Johnston, T. (2019a). Auslan Corpus Annotation Guidelines. In. Macquarie University (Sydney) & La Trobe University (Melbourne).
Johnston, T. (2019b). Clause constituents, arguments and the question of grammatical relations in Auslan (Australian Sign Language). A corpus-based study. *Studies in Language*, *43*(4, Dec 2019), 941 - 996.
Johnston, T., & Schembri, A. (2013). Corpus analysis of sign languages. In C. Chapelle (Ed.), *Encyclopedia of Applied Linguistics* (pp. 479-501). London: Wiley-Blackwell.

Keenan, E. L. (1976). Towards a universal definition of 'subject'. In C. Li (Ed.), *Subject and Topic* (pp. 305-333). Academic Press.
Kendon, A. (2014). Semiotic diversity in utterance production and the concept of 'language'. *Philosophical transactions of the Royal Society of London*, *Series B, Biological sciences, 369*(1651).
Kimmelman, V. (2018). Null arguments in Russian Sign Language. *FEAST*, *1*, 27-38.
Klima, E. A., & Bellugi, U. (1979). *The signs of language*. Harvard University Press.
Liddell, S. (2003). *Grammar, gesture, and meaning in American Sign Language*. Cambridge University Press.
Liddell, S., & Metzger, M. (1998). Gesture in sign language discourse. *Journal of Pragmatics*, *30*(6), 657-697.
Lillo-Martin, D. (1991). Universal Grammar and American Sign Language: Setting the Null Argument Parameters In T. Roeper & K. Wexler (Eds.), *Studies in Theoretical Psycholinguistics* (Vol. 13). Springer Science + Business Media, B.V.
Lillo-Martin, D. (2012). *Utterance reports and constructed action*. De Gruyter Mouton.
Loew, R. C. (1984). *Roles and Reference in American Sign Language: A Developmental Perspective*. ProQuest Dissertations Publishing.
Louro, C. R. (2013). Quotatives down under: Be like in cross-generational Australian English speech. *English world-wide*, *34*(1), 48-76.
Lov om språk (Språklova) [The Language Law]. (2021). Lovdata. Retrieved from https://lovdata.no/dokument/NL/lov/2021-05-21-42
Lønnum, E. (2019). Tegnspråk, først og fremst [Sign Language, First and Foremost]. *Språknytt [Language News]*(1).
Mathis, T., & Yule, G. (1994). Zero quotatives. *Discourse Processes*, *18*(1), 63-76.
Mayer, M. (1969). *Frog, Where Are You?* Dial Press.
McKee, R., Schembri, A., McKee, D., & Johnston, T. (2011). Variable 'subject' presence in Australian Sign Language and New Zealand Sign Language. *Language Variation and Change*, *23*(3), 375-398.
Metzger, M. (1995). *Constructed dialogue and constructed action in American Sign Language*. Gallaudet University Press.
Morgan, G. (2006). The development of narrative skills in British Sign Language. In B. S. Schick, Marschark, M., Spencer, P. (Ed.), *Advances in the Development of Sign language by Deaf Children* (pp. 314-343). Oxford University Press.
Nordlund, S. (2019). Agent defocusing in two-participant clauses in Finnish Sign Language. *Glossa: a journal of general linguistics*, *4*(1), 1-27.
Norges døveforbund. (n.d.). *Om tegnspråk [About Sign Language]*. Norges døveforbund [Norway's Association for the Deaf]. https://www.doveforbundet.no/tegnsprak/hva
Norsk døvemuseum [Norwegian Museum of the Deaf]. (n.d.). *Tegnspråk [Sign Language]*. Retrieved 14.06.2021 from https://norsk-dovemuseum.no/tegnsprak
Padden, C. A. (1986). *Verbs and role shifting in American Sign Language.* Proceedings of the Fourth National Symposium on Sign Language Research and Teaching, NAD, Silver Spring, MD.
Palacios Martinez, I. M. (2013). Zero quoting in the speech of British and Spanish teenagers: A contrastive corpus-based study. *Discourse studies*, *15*(4), 439-462.
Pavlenko, A. (2008). *Narrative analysis*. Blackwell.
Perniss, P., & Özyürek, A. (2014). Visible Cohesion: A Comparison of Reference Tracking in Sign, Speech, and Co-Speech Gesture. *Topics in Cognitive Science*, *7 (2015)*, 36–60.
Pfau, R., & Quer, J. (2010). *Nonmanuals: their grammatical and prosodic roles*. Cambridge University Press.
Pizzuto, E., Rossini, P., Sallandre, M.-A., & Wilkinson, E. (2008). Deixis, anaphora and highly iconic structures: Cross-linguistic evidence on American (ASL), French (LSF) and Italian (LIS) signed languages. In R. Muller de Quadros (Ed.), *Sign languages: Spinning and unraveling the past, present and future*. Editora Arara Azul.
Puupponen, A., Kanto, L., Tuija, W., & Jantunen, T. (2022). Variation in the use of constructed action according to discourse type and age in Finnish Sign Language. *Language & Communication*, *85*(March 2022), 16-35.

Quer, J. (2018). On categorizing types of role shift in Sign languages. *Theoretical Linguistics*, *44*(3-4), 277-282.
Rankin, M. (2013). *Form, Meaning, and Focus in American Sign Language*. Gallaudet University Press.
Reilly, J. (2000). Bringing affective expression into the service of language: Acquiring perspective marking in narratives. In K. Emmorey, Lane, H. (Ed.), *The Signs of Language Revisited: An Anthology to Honor Ursula Bellugi and Edward Klima* (pp. 415--433). Lawrence Erlbaum Associates.
Schembri, A. (2003). Rethinking 'Classifiers' in Signed Languages. In K. Emmorey (Ed.), *Perspectives on Classifier Constructions in Sign Languages* (pp. 3-34). Psychology Press.
Schembri, A., Cormier, K., & Fenlon, J. (2018). Indicating verbs as typologically unique constructions: Reconsidering verb 'agreement' in sign languages. *Glossa: a journal of general linguistics*, *3*(1), 1-40, Article 89.
Schröder, O.-I. (1983). Fonologien i norsk tegnsprog [The Phonology of Norwegian Sign Language]. In J. M. Tellevik, M. Vogt-Svendsen, & O.-I. Schröder (Eds.), *Tegnspråk og undervisning av døve barn [Sign language and the education of deaf children]*. Tapir.
Schröder, O.-I. (1993). Introduction to the History of Norwegian Sign Language. In R. Fischer (Ed.), *Looking back: A reader on the history of deaf communities and their sign languages* (pp. 231-248). Signum.
Scott, K. (2019). *Referring Expressions, Pragmatics, and Style: Reference and Beyond*. Cambridge University Press.
Selvik, K.-A. (2006). *Spatial Paths Representing Time. A Cognitive Analysis of Temporal Expressions in Norwegian Sign Language.* Universitetet i Oslo [University of Oslo].
Sidnell, J. (2006). Coordinating Gesture, Talk, and Gaze in Reenactments. *Research on Language and Social Interaction*, *39*(4), 377-409.
Silva-Corvalán, C. (1994). *Language contact and change: Spanish in Los Angeles*. Clarendon Press, New York; Oxford University Press.
Skedsmo, K. (2020). Other-initiations of repair in Norwegian Sign Language. *Social Interaction. Video-Based Studies of Human Sociality*, *3*(2).
Slowikowska Schröder, B. (2011). Imperativ i norsk tegnspråk [Imperative in Norwegian Sign Language]. *Norsk Lingvistisk Tidsskrift [Norwegian Journal of Linguistics]*, *29*, 136-157.
Språkrådet [the Language Council of Norway]. (2017). *Språkstatus 2017. Språkpolitisk tilstandsrapport fra Språkrådet [Language Status 2017. Language Policy Condition Report by the Language Council]*.
Språkrådet [the Language Council of Norway]. (2019). Norsk tegnspråk [Norwegian Sign Language]. In.
Statped. (2016). *Tegnbanken [the Sign Bank]*. Retrieved 14th April 2022, from https://www.minetegn.no/Tegnbanken-2016/index.php#info
Stjernholm, K. d. V. (2008). *Subjektsellipser: Fins pro i norsk talespråk? [Subject ellipses: Does pro exist in spoken Norwegian?]* Universitetet i Oslo [University of Oslo].
Stokoe, W. C. (1960). Sign language structure: An outline of the visual communication systems of the American deaf. *Studies in linguistics*, *Occasional paper 8*, 1-78.
Supalla, T. (2003). Revisiting visual analogy in ASL classifier predicates. In K. Emmorey (Ed.), *Perspectives on classifier constructions in sign languages* (pp. 249–257). Lawrence Erlbaum.
Svartvik, J., & Quirk, R. (1980). A Corpus of English Conversation. In *Lund Studies in English 56*. Lund, Sweden: C. W. L. Gleerup.
Swabey, L. (2011). Referring expressions in ASL Discourse. In C. Roy (Ed.), *Discourse in signed languages* (pp. 96-118). Gallaudet University Press.
Tannen, D. (1986). Introducing constructed dialogue in Greek and American conversational and literary narrative. In F. Coulmas (Ed.), *Direct and Indirect Speech*. De Gruyter Mouton.
Tannen, D. (1989). *Talking Voices: Repetition, Dialogue, and Imagery in Conversational Discourse* Cambridge University Press.
Van Leeuwen, T. (2004). *Introducing Social Semiotics: An Introductory Textbook*. Routledge.
Van Valin, R. (2004). Semantic macroroles in Role and Reference Grammar. *Semantische rollen*, *62*.

Van Valin, R., & LaPolla, R. (1997). *Syntax, Structure, Meaning and Function*. Cambridge University Press.
Vogt-Svendsen, M. (1983). *Norske døves tegnspråk - noen pedagogiske og språkvitenskapelige aspekter [Sign Language of the Norwegian Deaf - Some Pedagogical and Linguistic Aspects]*. Tapir.
Vogt-Svendsen, M. (1990). *Interrogative strukturer i norsk tegnspråk: en analyse av nonmanuelle komponenter i 86 spørsmål. [Interrogative Structures in Norwegian Sign Language: An Analysis of Nonmanual Components in 86 Questions].* Universitetet i Trondheim [University of Trondheim].
Vogt-Svendsen, M. (2001). A comparison of mouth gestures and mouthings in Norwegian Sign Language (NSL). In P. Boyes-Braem (Ed.), *The hands are the head of the mouth. The mouth as articulator in sign language* (pp. 9-40). Signum.
Vonen, A. M. (2020). *Norsk tegnspråk - en grunnbok [Norwegian Sign Language - A Primer/Handbook]*. Cappelen Damm akademisk.
Winston, E. (1992). Space and involvement in an American Sign Language lecture. Expanding horizons: Proceedings of the twelfth national convention of the registry of interpreters for the deaf, Silver Spring, MD.
Woll, B. (2013). The History of Sign Language Linguistics. In K. Allan (Ed.), *The Oxford Handbook of the History of Linguistics*.
Wulf, A., Dudis, P., Bayley, R., & Lucas, C. (2002). Variable subject presence in ASL narratives. *Sign Language Studies*, *3*(1), 54-76.

APPENDIX

BAR CHARTS FOR THE DISTRIBUTION OF FRAMING IN SWITCH REFERENCE VS. CO-REFERENCE

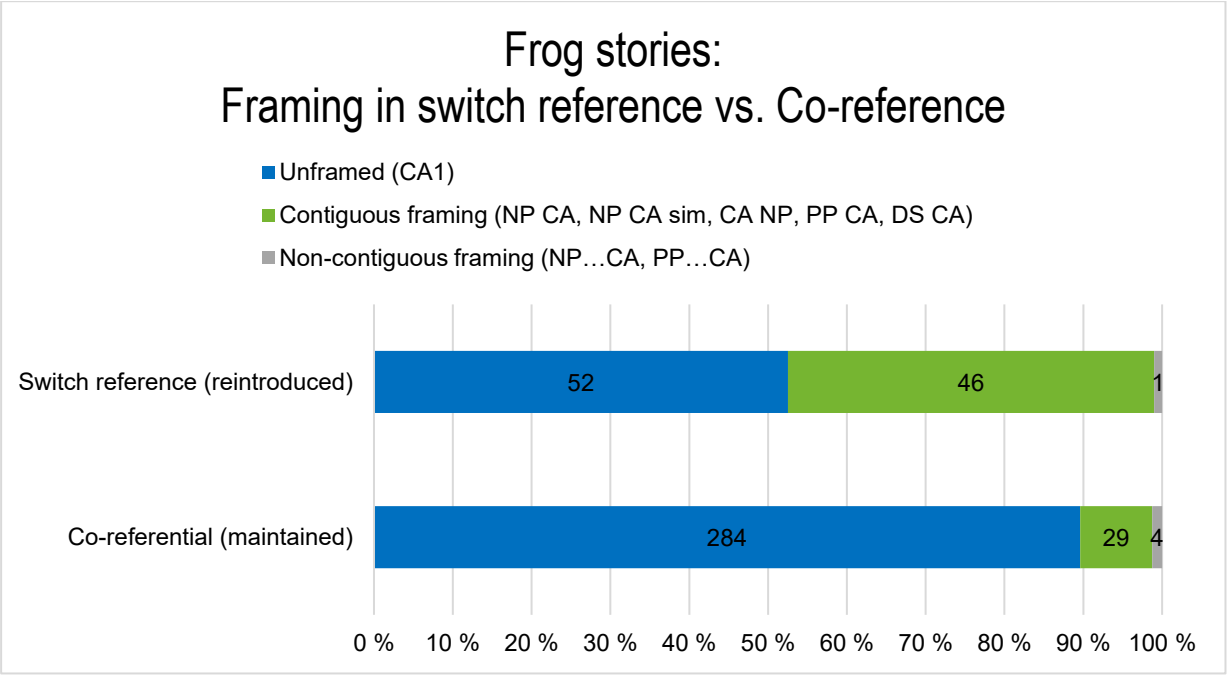

Figure 24: Distribution of framing categories in switch reference vs. Co-reference in the Frog Stories. The number of instances per category is shown on the graph.

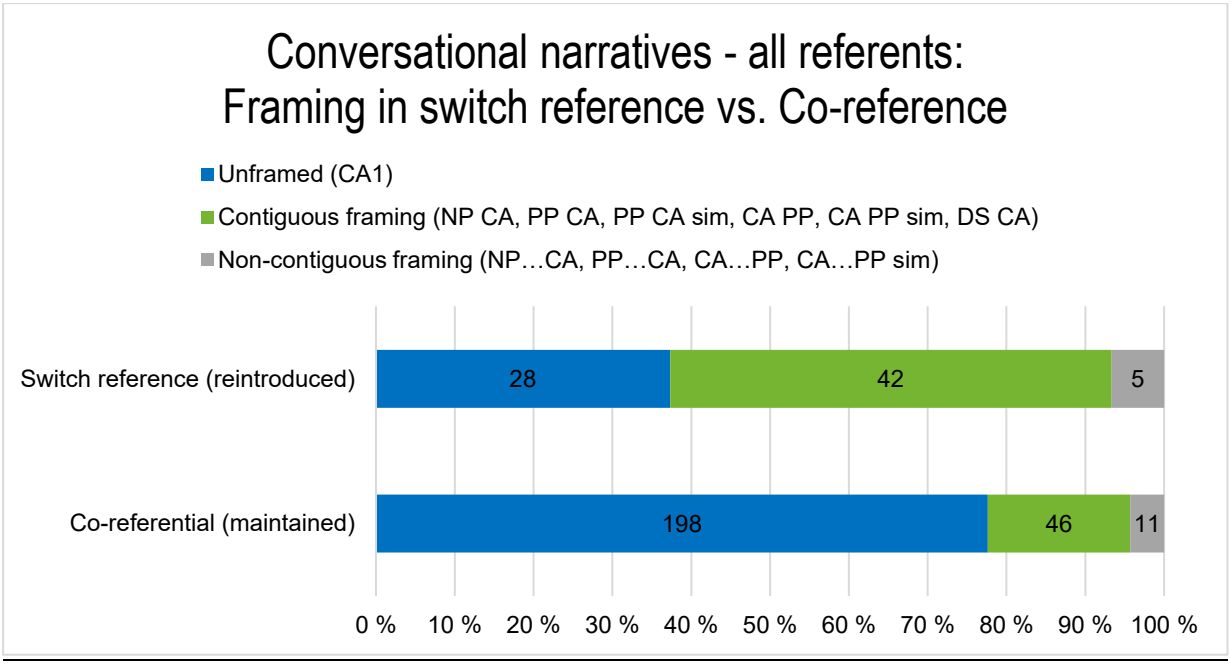

Figure 25: Distribution of framing types in switch reference vs. Co-reference in the conversation files. The distribution includes all 343 instances, the number of instances per category is shown on the graph.

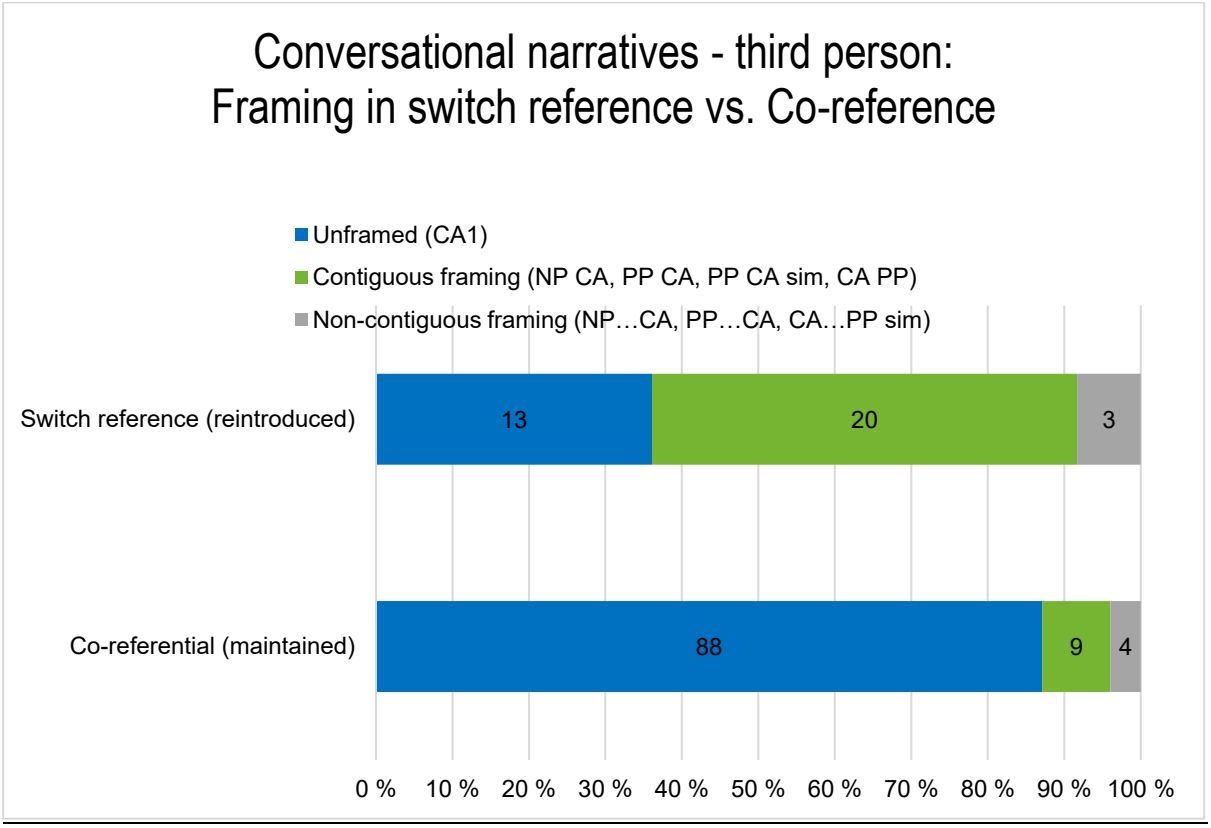

Figure 26: Distribution of framing categories in switch reference vs. Co-reference in the instances of third person CA in the conversation files.

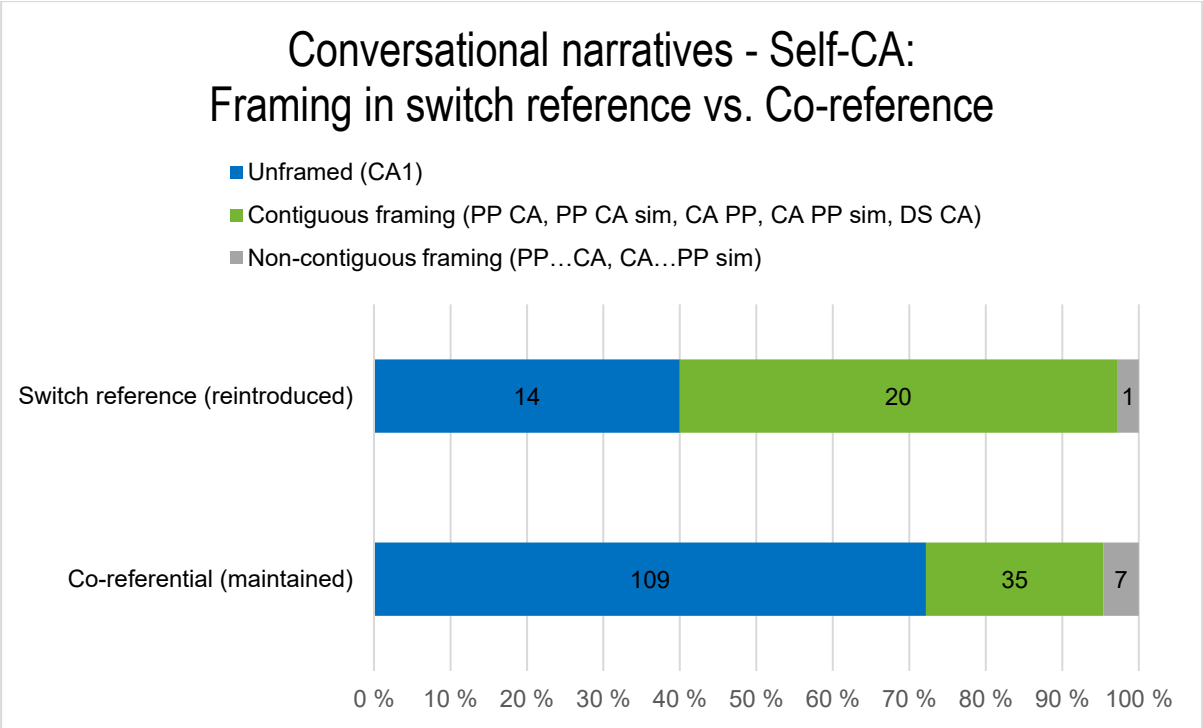

Figure 27: Distribution of framing categories in switch reference vs. Co-reference with self-CA only in the conversation files.