BITTE KLAR BILD GEBÄRDEN

Systematic Promotion of Modality Specific Translation and Interpretation into German Sign Language in L2/M2

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Abstract

Empirical research in the field of Second Language Acquisition (SLA) of Signed Languages (SLs) is essential in order to inform and improve practices in teaching L2/M2 learners as well as training interpreters who work with SLs (SLI). The aim of this study is to contribute to this still small body of research by exploring the effects of Modality Specific Strategies (MSS) on the perception of deaf signers. The data for this qualitative study was generated by deaf signers taking a judgment acceptability task rating two versions in German Sign Language (DGS) that are based on the same source text (ST). The results show a clear tendency towards the version with MSSs. Furthermore, the data identified priorities, preferences and needs the participants expressed: the consideration of modality specific features and related linguistic properties of DGS to ensure an understanding of and accessibility to the text while at the same time respecting the factor of entertainment. These findings have strong implications on the training of SLIs as they are expected to know about deaf signers' preferences, priorities and needs and meet them in their interpretation.

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Declaration of Authorship

I declare that the thesis embodies the results of my own work and has been composed by myself. Where appropriate within the thesis I have made full acknowledgement of the work and ideas of others or have made reference to work carried out in collaboration with other persons. I understand that as an examination candidate I am required to abide by the Regulations of the University of Applied Sciences Humak, Helsinki and to conform to its discipline and ethical policy.

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List of abbreviations

AoA	Age of Acquisition
AV	Additive Visualisierung (english term see VE)
ASL	American Sign Language
CA	constructed action
CD	constructed dialogue
CSA	Context-Specific Adaptation
CR	Coherence in Reference
DGS	Deutsche Gebärdensprache German Sign Language
DI	Deaf Interpreter
EB	Explizite Beschreibung (english term see ED)
ED	Explicit Description
EUMASLI	European Master of Sign Language Interpreting
IDGS	Institut für Deutsche Gebärdensprach und Kommunikation Gehörloser Institute of German Sign Language and Communication of the Deaf
IS	International Sign
KK	Kontextuelle Konkretisierung (english term see CSA)
LIS	Lingua Italiana dei Signe Italian Sign Language
MSS	Modality Specific Strategy
RK	Referentielle Kohärenz (english term see CR)
RQ	research question
SL(s)	Signed Language(s)
SLA	second language acquisition

SLI	sign language interpreting
ST	source text
TT	target text
VA	Visual Elaboration

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Glossing conventions

SIGN	Represents a single sign
PEOPLE++	Indicates repetition
S-I-G-N	Indicates fingerspelling
CL-SIGN	Indicates the use of a classifier
SIGN$_{ADJ}$	Indicates the manipulation of the sign (i.e. nonmanuals)
CA$_{par}$	parallel constructed action (see Fischer & Kollien, 2016)
CA > SIGN	Indicates a sequence of CA
CD > SIGN *CA > SIGN*	Indicates a *sequence of CA* within a <u>sequence of CD</u>
/UN/	proper noun
VERB$_{>DIRECTION}$	Indicates a directional verb
SIGN$_{MG:BAM}$	Indicates mouth gesture
SIGN$_{neg}$	Indicates negation

1 Introduction

In the following introductory sections, the relevance for this research project will be outlined as well as the positionality and influence that I as the researcher and author have had on this project. Lastly, I will state the research questions for this study and give an overview on how I proceeded to answer them.

This research project is most of all a very personal one. It was during my BA studies at the Institute of Sign Language and Communication of the Deaf (IDGS) at the University of Hamburg that I started to wonder why my signing looked different from deaf people signing. Although I tried to follow grammatical rules that we have had learned so far, such as the word order (subject-object-verb instead of subject-verb-object as it is the rule for written or spoken German), or that adjectives follow nouns and not the other way around, my signing felt and looked very different from what I have been observing. It is interesting and feels validating for me today to read about similar experiences shared by students in an academic journal: "The students with whom I talked about their learning process shared very similar frustrations: [...], the bewilderment, when the deaf lecturers shook out of their sleeves, in the truest sense of the word, in a short, clear and beautiful form, what one had been pondering over for minutes. The discrepancy between what one observed and usually understood well, and what one could produce oneself, caused considerable grief to a large number of students of each year." (von Randow, 2016a, p.102). It was a fellow student and one of my closest friends who challenged me in one essential aspect that I just did not seem to comprehend. When asking her how to sign "jealous", "I turned around" or "she looked at me in disbelief", her answer would always be the same: "Just do it with constructed action". She even wrote a story about dragons and a girl living in Iceland for me to retell in order to understand the concept of constructed action and its essential role within the structure of German Sign Language (DGS). As it is almost impossible to sign a narrative without using constructed action, the dragons helped me to comprehend the phenomenon of constructed action and I learned how to incorporate it into my signing. I felt quite different about my signing and I thought it resembled the way that deaf people signed more than before. However, still, there was something missing and my signed output had another quality to it than my linguistic role models at that time. These thoughts and

the idea as well as the concept for this project have not left me for the last eight years. The process in that time can be described with my explicit knowledge being "fuzzy", "imprecise and inaccurate" (Ellis, 2009, p.12) and with me not being willing to accept this state of fuzziness. I can identify myself and my learning process with the following statement: "It is possible, for example, that learners will reflect on knowledge that they have acquired implicitly (i.e. without metalinguistic awareness) and thus, subsequently develop an explicit representation of it." (p.6). This explicit representation culminates in the form of this thesis: the exploration of my observations, the theoretical work on the modality-specific strategies and lastly the study that either results in confirmation by deaf signers or in disaffirmation.

Linguistic variation in Signed Languages (SLs) does not only pose a challenge for working interpreters, but can be a factor that influences their training as well as the possibilities and limitations that teachers and professors face (Crasborn & Blom, 2009; Leeson, 2005). It is difficult to refer to one standard rule or solution in any SL as there is a broad spectrum of signers with the biggest group being "habitual signers" as Gullberg terms them (2022, p. 243). Unfortunately, this variation in lexicon and grammar alike has not always been understood nor accepted as a feature of SLs. The government in the Netherlands executed language planning and politics to the extreme in making the standardization of NGT (Dutch Sign Language) a prerequisite for officially acknowledging it as a language of the Netherlands (Crasborn & de Wit, 2005). Luckily, a more descriptive approach can be observed for corpus projects (i.e. DGS Corpus Project) where data is generated "to provide a better sense of how habitual signers manage lexical, grammatical, and pragmatic demands and balance them against other conversational needs such as humour, irony, linguistic creativity more generally and individual communicative styles" (Gullberg, 2022, p. 243). With SLs still not being researched as extensively as spoken languages (Hammarström et al., 2014) and underrepresented (Lillo-Martin & Hochgesang, 2022), there are consequences for research in the more obvious fields of linguistics, second language acquisition (SLA) amongst others, as well as interpreters' training. This in turn impacts other academic related disciplines and at last the life of members of deaf communities (de Meulder et al., 2019).

This thesis wants to contribute to the broader field of SLA, focusing on SLs and the target group of SLI students. To do so, it starts off with a literature review on modality and

iconicity in SLs in general as well as in SLA specifically (chapter 2). The research questions are explained in chapter 3 as well as the methodological approach that I chose to answer these research questions. After an extensive description of the suggested Modality Specific Strategies (MSS) and the stimuli material in chapter 3.3.1 and 3.3.2 respectively the process of data generation and analysis is outlined in chapter 3.4. What follows is the presentation of the results (chapter 4) and the exploration of practical and theoretical implications in chapter 5. Chapter 6 concludes this thesis.

2 The Importance of Modality

In the following chapters, modality, here the visual modality across Signed Languages, will be described shortly. Furthermore, a (linguistic) property that is promoted by the specificities of the visual modality will be highlighted. Iconicity is not exclusive to SLs, but is heatedly debated within the academic discipline. An overview of this discourse will be presented before describing studies that examine iconicity and its possible effect on learning a SL as a second language.

2.1 Modality and iconicity

While spoken languages mainly use the oral-auditory channel to convey and receive signals (i.e. information), SLs are characterized by their manual-visual modality. Signers use the space in front of their torso (signing space), the torso/upper body itself, the hands as well as facial expression and head position to relay information and their eyes to receive these signals (Emmorey, 2015, p.475). This modality makes it possible for SLs to exhibit sequential as well as simultaneous structures/information. Constraints in this specific modality have been identified and found to favor simultaneous structures over sequential ones on every linguistically defined level of SLs (Aranoff et al., 2005). This leads to a very much debated feature of SLs that is likewise ingrained in their very structure: iconicity. The concept of iconicity is referred to as the perceived resemblance of a sign (or word) and their counterpart in reality, namely their referent (Emmorey, 2014, p.1). This resemblance is difficult to generate with spoken or written words as their properties (e.g. the sound of the word *hammer*) do not evoke a mental image of the object itself. The visual modality of SLs on the other hand allows for a mental

representation (as the sign for *hammer* shows how the tool is handled) (Vigliocco et al., 2005, p. 1895).

However, early research tried to prove that SLs are equal to spoken languages and have been developing just as naturally. Thus, scholars viewed it as an essential step towards an approval in academics to emphasize that iconicity, which apparently was an inherent feature in SLs, did not play a strong role (Valli, 2005). In order to join the paradigm of arbitrariness in language and to disprove the widespread theory that signs were nothing more than gestures and pantomime, evidence was gathered that highlighted SLs as being as arbitrary as spoken languages (Perniss et al., 2010, p. 15). Hockett's design features (Hockett, 1960) of language are one example that clearly reflects that very notion with one feature describing arbitrariness as a precondition for a communication system to be considered human language (Lillo-Martin & Gajewski, 2014, p. 389). The setting and time during which research on SLs emerged and the school of thought popular at that time have had massive influence on the way scholars see iconicity in SLss up until today. Although, in spoken languages, a clear trend can be observed towards ascribing them a higher degree of iconicity than previously (Dingemanse et al., 2015, p.603/604), scholars in SLs still seem to be cautious in this regard. The conflict between acknowledging iconicity and the role it plays across SLs and the tradition in linguistics emphasizing arbitrariness as well as other paradigms that have fostered the notion that SLs are nothing more than gestures and pantomime manifest in a research landscape that has been producing a myriad of arguments in favor (more recently) or against iconicity and its influence on language acquisition especially.

Iconicity and its role on a lexical level has been studied more extensively compared to other aspects of SL structure and grammar. An interesting focus in research was to determine parts of the lexicon that are considered as iconic and other lexemes that are considered as arbitrary (see for example Perlman et al., 2018; Poizner et al., 1981; Thompson et al., 2009; Ortega et al., 2014), even across different SLs and cultures (Pizzuto & Volterra, 2000; Occhino et al., 2017). This specific part of the whole language system has always been acknowledged as having a possible high(er) degree of iconicity (Perniss & Vigliocco, 2014, p. 10). The role that iconicity plays across SLs on a lexical level has been confirmed by Boeyes-Braem (1968) stating that at least a third of the lexicon is iconically motivated, by Stokoe (1965) who classified a quarter of the ASL-lexicon as

pantomimic or iconic, as well as by Pietrandrea (2002) claiming that more than half of the signs in LIS (Italian Sign Language) and their properties respectively can represent physical features of their referents (see Ortega, 2017).

Thompson et al. (2019) have studied the impact that iconicity has on a phonological level and discovered that these effects permeate the entire language system (for iconicity on phonological level see also Brentari, 2007; Sandler, 2017; Johnston & Schembri, 1999; Van der Kooji, 2002; Wilbur, 2008). Iconicity on a morphological level (see Aranoff et al., 2005) has been observed in verb agreement or directionality (Lillo-Martin & Meier, 2011; Meier, 1987; Schembri et al., 2018), aspect (Klima & Bellugi, 1979; Wilbur 2008; Reagan, 2009), references (Lillo-Martin & Klima, 1990; Klima & Bellugi, 1979; Engberg-Pedersen, 2003) as well as classifiers (Klima & Bellugi, 1979; Emmorey, 2003).

As Sandler puts it in short, iconicity is prevalent on every grammatical level in SLs (2017, p.55), which include the level of syntax (Haiman, 1983; Schlenker et al., 2022) as well as discourse. The French school spearheaded by Cuxac and supported by his fellow researcher Sallandre (2002, 2006, 2007a, 2007b) has long been following an approach that has been viewed as radical by peer scholars (Demey et al., 2008, p.198) due to the argumentation of iconicity being the main principle that grammar and structure of SLs are built on (e.g. 1999, 2000; see also Russo for LIS, 2004). The underlying assumption of this master thesis as well as the aim to strategically promote modality specific translation and interpretation into (German) Sign(ed) Language follow Cuxac's principle of iconicity being the foundation of SL grammar, structure and organization.

This section has reviewed literature related to modality and iconicity in SLs by giving an overview on published research that has analyzed this specific property of SLs on the lexical, phonological, morphological, syntactical as well as discourse level.

2.2 Modality and L2/M2 acquisition

Having given a literature review on iconicity in Sls, this thesis now moves on the field of SLA acquisition, considering the visual-gestural modality of SLs throughout. Lillo-Martin and Gajewski (2014) might conclude in their theoretical study that spoken languages and Signed languages do in fact share one grammar, they do, however, emphasize that

the visual-manual modality of SLs allows other forms of expressions and therefore at least partly concur with Cuxac who sees iconicity as the leading principle in structure and organization of SLs (1999, 2000). Although there are features and properties that are shared across spoken languages and SLs and iconicity being seen as an element present in both modalities (Perniss et al., 2010; Dingemanse et al., 2015), it is important to address its exceptional role when learning a SL as a second language (see Wilcox & Wilcox, 1997). This is why I deliberately use the term L2/M2, acknowledging nevertheless the discourse in the field of SL linguistics suggesting to use the term L2 to respond to latest research on the intersection of SLs and gesture.

2.2.1 L2/M2 acquisition in the context of formal adult education

This thesis and the development of strategies to promote modality specific interpretation and translation aim to contribute to the academic discourse as well as offer a practical tool for the field of teaching hearing adults. Students in Germany are supposed to learn German Sign Language (DGS) as a second (or third/fourth/etc.) language as well as master the visual-manual modality to a certain degree in the course of only three years (see e.g. Calle et al., 2013; Leeson et al., 2013). Furthermore, students who are enrolled in a program of Sign Language Interpreting have to learn about different modes of interpreting, settings that they may work in after graduation and bring these acquired technical skills together with their competence in DGS. Scholars in the field of SL linguistics as well as interpreting training have pointed out that even the existence of a curriculum does not necessarily mean that it is based on research on processes of L2/M2 acquisition or patterns of language use within signing communities (Ferrara & Nilsson, 2017, p.2; Quinto-Pozos, 2011, p. 145; Thoryk, 2010, p.100/101). Many SLs are still under-researched and thus not documented well enough to even allow for a comparison with the use by hearing adult learners of the SL in question. This lack of insight results in curricula and lessons that are in many cases based on the intuition and anecdotal knowledge of instructors (see also Biber & Conrad, 2011; Cresdee & Johnston, 2014; Fries & Geißler, 2012). Historical developments have been playing a major part in developing the curricula in question. Von Randow (2016a) demonstrates that teaching material for DGS does not portray iconicity and constructed action as being

an integral part of learning a SL. On the contrary, by analyzing the materials in question[1], von Randow (2016a) illustrates that a firm line is drawn between pantomime and gesture on the one side and DGS on the other side. Authors caution instructors and advise them to use lexemes and manual signs whenever possible denying them as well as students access to essential features of the language. Shortcomings like these are not only documented for SLs, but for spoken language teaching as well what led researchers as well as practitioners to think about alternative ways of teaching as well as other forms of material, such as corpora (Krieger, 2003; Reppen, 2010; O'Keffee et al., 2007).

The PRO-sign project that has worked on descriptors for language proficiency worked towards the possibility of structuring curricula, defining levels of proficiency and making assessment in L2/M2 possible (Leeson et al., 2016). The Common European Frame of Reference for Languages (CEFR), that has long existed for spoken languages, has been adapted to SLs from 2012 to 2015 (Leeson et al., 2016). Although the authors refer to the challenges rooted in the visual-gestural modality of SLs they faced throughout this process (p.7), it is interesting to observe that the descriptors do not highlight any of those modality-specific phenomena. This document is without a doubt a milestone in the history of sign language pedagogy, since it changed curricula across Europe and provided guidelines for teaching SLs in a systematic way. Unique terminology pertaining to SLs is only mentioned at the end in the form of a glossary. Concepts such as iconicity, signing space, non-manual features and constructed action /dialogue are explained in the glossary, but not mentioned in the chapters on the descriptors (p. 53). With this study, I would like to add a proposal on *how* L2 learners of a SL should be able to sign to the CEFR that already defines the topic of *what* L2 learners should be able to sign in order to reach levels A1/A2 as a basic user, levels B1/B2 as an independent user or levels C1/C2 as a proficient user.

2.2.2 Transfer in second language acquisition

In the following, I would like to highlight a few studies that show linguistic challenges that arise when hearing adults are in the process of learning a SL. Research on SLA pertaining to SLs has been scarce and not situated in the broader field of SLA

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[1] Grundkurs Deutsche Gebärdensprache (Basic Course in German Sign Language), Lehrbuch für Lehrende Stufe 2 (corresponding Manual for Teachers level 2)

(Schönström & Marshall, 2022; Gullberg, 2022). Far more research has been done on the topic of L1 learning of SLs (e.g. Boyes Braem 1990; Bogaerde & Baker, 2005), especially with regard to iconicity and its effects (Morgan, 2002; Morgan et al., 2006; Caselli & Pyers, 2017; Perniss et al., 2018; Lillo-Martin & Henner, 2021). That is for good reason as "less than five percent of deaf and hard of hearing students receiving special education are known to have at least one deaf parent" (Mitchell & Karchmer, 2004). By now, there are a number of studies providing evidence of (natural) sign languages to be beneficial in deaf or hard of hearing childrens' linguistic and cognitive development (see for instance Hassanzadeh, 2012; Hall et al., 2019). In this study however, I want to focus specifically on adult learners who get in contact with the visual-manual modality for the first time. It is this group of learners whom I want to benefit from the strategies described in chapter 3.1 by suggesting a way to promote their skills in modality specific translation and interpretation into (German) Sign(ed) Language.

In the context of modalities, it is important to acknowledge that gesture is part of the visual-manual modality as well (see Gullberg & McCafferty, 2008 for an overview on gesture and L2). Hearing adults have been growing up with co-speech gestures that can vary in execution, size and shape and do not have a grammatical function per se (Woll, 2013). Nevertheless, several studies have suggested that gestures' and learners' command of them can have an effect on their SL acquisition process (Taub et al., 2008; Casey & Emmorey, 2009; Ortega & Özyürek, 2013; Chen & Koulidobrova, 2015; Ortega, 2017; Ortega et al., 2019; Marshall et al., 2021).

One aspect that can be related to this intersection of SL and gesture is linguistic transfer. In general, it is described as an "incorporation of a grammatical property into one language from another'' (Paradis & Genessee, 1996, p.3). Odlin (1989) defines transfer as "the influence resulting from the similarities and differences between the target language and any other language that has been previously (and perhaps imperfectly) acquired" (p.27). This influence can occur on a phonological level (accent), lexical level (false friends), syntactical level (word order from L1) and even on discourse and pragmatic level (e.g. the conventional form of an apology) (Odlin & Yu, 2016). In the context of interpreting, Cokely termed a transfer from L1 to L2 *intrusion* (1986). Within the latest turn in the field, the term transfer was replaced by the expression *cross-linguistic influence* (Gullberg, 2022). Koulidobrova (2012) has argued against linguistic

transfers, describing these phenomena as instances of code-switching and -mixing using the label *language-synthesis* (p.6). Although it has been historically seen as an obstacle on the learner's way to proficiency of a second language (Jarvis, 2015, p.17), linguistic transfer research has become a discipline of its own within the broader scope of L2 research. Gulberg (2022) criticizes that research on SLA has focused exclusively on spoken languages and thus has not tested any hypothesis or model "across the modality boundary" (p.234). Chen Pichler (2011) is pointing out that transfer has been described in the Speech Learning Model (Flege, 1995 in Chen Pichler, 2011) and the Perceptual Assimilation Model (Best, 1995 in Chen Pichler, 2011) as a phenomenon that occurs increasingly when the form of the L1 is similar to the form of the L2, but not identical (p.6). This might lead to learners using known handshapes or movements from their gestural experience instead of the correct ones that make up the sign (see Chen Pichler, 2011 for overview on transfer in the phonological level, p.6-7). I want to suggest, however, that it is not on the phonological level that potential for linguistic transfer is the highest and argue that it is in fact the underlying structure of (German) Sign Language that invites learners to make transfers. When learners use a rather sequential form when expressing their thoughts in a SL, they do not use the grammatical opportunities that a SL offers with its signing space, its potential for simultaneous structures and iconic properties (see Cuxac, 1999, 2000). Ingram is referring to a coping mechanism that interpreters (L2) can use when working into the Signed Language, in this case ASL: "The interpreter can always shift into a sign language form that is easier for him, but not necessarily more comprehensible to the deaf person receiving the message. Unfortunately, deaf individuals receiving such interpretations frequently just shrug, 'Oh, well, he (the interpreter) signs like a hearing person', and let it go at that." (Ingram, 1978, p.6).

The studies that I present in the next section support my hypothesis in that sense. However, I do want to refer to other scholars who have identified nonlinguistic challenges for adult hearing learners of a SL, such as insecurity when performing in a classroom setting (Sheridan, 2019), interacting with Deaf people outside of class (McKee & McKee, 1992), using nonmanual markers as a grammatical property and thus unlearning hearing habits (Calton, 2013, p.68; Peterson, 2009, p.6) as well as realizing their hearingness as a part of their identity (O'Connell, 2017, p. 858).

2.2.3 Linguistic challenges in L2/M2 acquisition

After having described the phenomena of transfer in SLA in general as well as in SLs specifically, I review the little published research that studied SLA and how this process can be impacted by the visual-gestural modality of SLs.

McKee and McKee point out that one of the first major issues for L2/M2 learners is to produce and understand linguistic information in a way for which they do not have a schema developed yet (1992, p. 131). It is interesting to note that in the analysis of their questionnaire, that they distributed to 72 students and 12 teachers (hearing and deaf) of American Sign Language (ASL), both groups of participants rated in the category language "Thinking in ASL" as being a 5 (students) and a 6 (teachers) respectively on a scale from 1 (easy) to 6 (difficult) (p.134). Unfortunately, the authors do not explain what their concept of "Thinking in ASL" is and it is not clear whether the participants have a similar definition of this concept in mind when answering the question. However, it is telling to see that apparently modality specific, iconic properties of ASL are understood in theory (spatial indexing 2, directional verbs 2, classifiers 2 as well as performance aspect of ASL 3), but that these features are difficult to arrange and execute in a way that the result looks and feels like ASL thinking in ASL: (i) students 5, teachers 6, (ii) expressing thoughts easily in ASL: students 5, teachers 6, (iii) grammar & syntax: students 4, teachers 5 and (iv) coordination and fluency: students 4, teachers 5. A comment from one student specifically refers to the visual modality and iconicity in ASL by stating that "it is hard to think in pictures when I have been taught to think linearly" (p. 135). Open-ended statements from teachers show similar challenges on the other side of the classroom: "… but knowing how to analyze and break it down to teach is difficult…" (p.135), "Students don't seem to get a natural control of ASL grammar" (p. 136), "Second language learners get so frustrated and they often think I'm trying to teach the meaning of the vocabulary item when I'm really trying to get at the grammatical concept" (p.136). The data collected in this category of the questionnaire demonstrate that it is iconicity and modality specific signing on discourse level that is complex to teach and thus difficult to learn. Students and teachers alike report that it is challenging to move away from single examples and teaching via modeling. Hence, both sides are in need of practical strategies that offer systematic ways on how to "think more in (A)SL".

Kemp (1998) notes something very similar in their report on the reasons that learning ASL is a challenge. Amongst other arguments they mention being "criticized for signing in English sentences when communicating with Deaf people, despite the fact that [I am] they are fluent in ASL. This is probably because [I] they grew up in a non-signing environment and [I] they, at times, unconsciously transfer English grammatical rules into ASL grammar" (p. 258). Schornstein (2005) observes the same phenomena, only from the view of a deaf instructor teaching hearing interpreting students. They noticed that students "were using them [material] as 'vocabulary books' and still following English word order" (p.399) and thus changed their philosophy of teaching, supposedly feeling not content with the students' proficiency in ASL after their four years of interpreting training.

As described in chapter 2.1, use of the signing space is an essential part of any SL. Ferrara and Nilsson (2017) explore the L2M2 acquisition in Norwegian Sign Language in relation to describing spatial layouts. In their study, depicting signs produced within a set of spontaneous responses on prompts by 12 hearing BA students are analyzed and in a second step compared to the signing output of three deaf instructors. In contrast to the concept of classifiers that focuses more on the handshape, depicting signs are based and described according to their generalized meaning in context (Ferrara & Nilsson, 2017). What was striking in the results was firstly that students used more lexical signs and fewer depicting signs than their instructors. Calculating with a normalized frequency of 100 signs, students produced 72 fully lexicalized signs (compared to 61 produced by the instructors) and 11 depicting signs (compared to 21 used by the instructors). A second interesting observation was made by the instructor who led the data elicitation process commented on the numbers as well as on their impression by stating that "students appear to be 'thinking in Norwegian' during some parts of their responses" (p.11). In sum, this study did not only identify struggles that participants had with choosing depicting signs over lexicalized signs, but also with the way they used depicting signs and the coordination of their two hands in relation to each other. The authors emphasize that they do not see potential problems in phonological errors, but in understanding the concept and the (right) usage of depicting signs by managing and manipulating their signing space.

Studies like these are essential to understand L2/M2 acquisition as a process beyond a lexical (Ortega & Morgan, 2015; Schönström & Holmström, 2022; Hofweber et al., 2022; Sevcikova Sehyr & Emmorey, 2019) and phonological level (Beal & Faniel, 2019; Mirus et al., 2001; Rosen, 2004; Chen-Pichler, 2010; see also Ferrara & Nilsson, 2017, p.5/6). I want to suggest that it is important to address iconicity as the organizing principle of SLs (Cuxac 1999, 2000) as the main topic of concern when it comes to hearing adult learners of any SL. Although the visual-manual modality is not an entirely new concept for learners and although gestures can be seen as a stepping stone on a learner's way towards acquiring a SL, it is the iconicity and related grammatical features that can be described as the most challenging aspect of learning and mastering a SL (Quinto-Pozos, 2011). The studies referred to above suggest that hearing adults tend to stick to the sequential structure of spoken languages by using lexical signs instead of using the simultaneity that is inherent to the visual-manual modality. In this context, it is the aim of this study to develop strategies for hearing adult learners of (German) Sign Language that enable them to strategically promote modality specific tools for their interpretation and translations into a SL. I hope this thesis can contribute to the comprehensive question that Quinto-Pozos (2011) asks in the conclusion of their article: "What are the impacts of linguistic similarities and differences between signed and spoken languages on pedagogy?" (p.152). In practical terms, I want to suggest a didactic tool, namely Modality Specific Strategies, that support hearing adult learners of a SL in their process of acquiring DGS, as:

"The experience from the limited use of the basic course DGS at the University of Hamburg so far shows [...] that at least learners in the context of university are not satisfied with implicit grammar teaching by example, imitation and reproduction. They conduct their own analysis of the structures and want to compare their subjective theories about underlying rules with reality and in discussion with lecturers. They demand more explicit instruction in grammar, more rules that go into detail, and more opportunities to practice these rules in a structured way." (Beecken, 2000, p.96 as cited in von Randow, 2016b, p.324).

This chapter began by giving a literature review on modality and iconicity in SLs. It went on to present an overview on research in the field of SLA in general as well as pertaining to SLs specifically. In the chapter that follows, I describe the methodological approach, introduce and define the Modality Specific Strategies, present the stimuli and lastly conclude with describing the process of data generation and analysis.

3 Methodology

In the following, I will first state the research questions that guided this research project. The next section will introduce the Modality Specific Strategies (MSS), refer to published research when possible and illustrate the use of each MSS with three examples from the stimuli. Lastly, the process of data generation and analysis will be outlined.

3.1 Research Questions

With this thesis I want to introduce five Modality Specific Strategies that offer lecturers of SL interpreting in Germany a didactic approach to promote L2/M2 learners in their interpreting process from German to DGS. The research questions that I address in this study are the following:

1. Is the version including the Modality Specific Strategies proposed in this work (version$_{MSS}$) perceived as more natural, more idiomatic and/or more intelligible than the version that does not include any Modality Specific Strategy (MSS) by deaf informants?

2. How do deaf informants describe the version that includes Modality Specific Strategies (version$_{MSS}$) and the version that does not respectively?

3.2 Methodological approach

The following part of the chapter moves on to describe the methodological approach for this study. As I have illustrated in the introduction, my very own journey of

comprehending and applying as well as explaining and teaching DGS has sparked the question how a deaf signer expresses themselves so differently in DGS than me or any L2/M2 learner. The basic structure of DGS that is highly motivated by iconicity due to the visual-gestural modality might be an approach to answer this question and has been discussed in chapter 2.1. As was pointed out in section 2.2, acquisition of a new language in another modality than the learner's first language might pose challenges in regard to didactic methods, tools and concepts. I have been observing my own signing, students, colleagues as well as members of the deaf communities trying to find a schema or theory that can answer my question. After eight years of developing four of the five proposed MSSs myself and engaging with the fifth MSS (i.e. CA/CD) in detail, I am now working on bringing everything to paper, refining definitions as well as working on a conceptual framework.

The first step was to word research questions that guide me through this process (see chapter 3.1). In this section of the thesis, I will describe the methodological approach that I took to answer the two RQs. To answer my first RQ, I used an acceptability judgment paradigm in order to obtain feedback from deaf informants. This method is chosen when researchers aim to elicit feedback on a specific topic from their informants who serve as representatives for a targeted population (here: deaf communities) and want to learn more about their perception in terms of acceptability or use of certain features. One example for this type of paradigm is the investigation of deaf individuals' perceptions of the emergence of new technology as well as its development and improvement, such as SL avatars (Kipp et al., 2011). The method has been applied in studies with various research interests in the field of SL linguistics: acceptability of sign manipulation (Arendsen et al., 2010), influence of age of acquisition (AoA) on the processing of linguistic structures (Krebs et al., 2021), syntactic competence of deaf adults (Chamberlain & Mayberry, 2008). In the case of this study, I generated stimuli, each with two versions: one version that applied multiple MSSs and the other version that did not. The videos were inserted into a Powerpoint presentation to make it easy for the participants who had to only have to click on the space-bar to get to the next stimuli, whenever they had signed their responses. The buildup of the study is illustrated in fig.1. The participants of this study had to decide which version they perceived as being more natural, more idiomatic and/or more intelligible.

first frame   version A   gray screen   version B   last frame
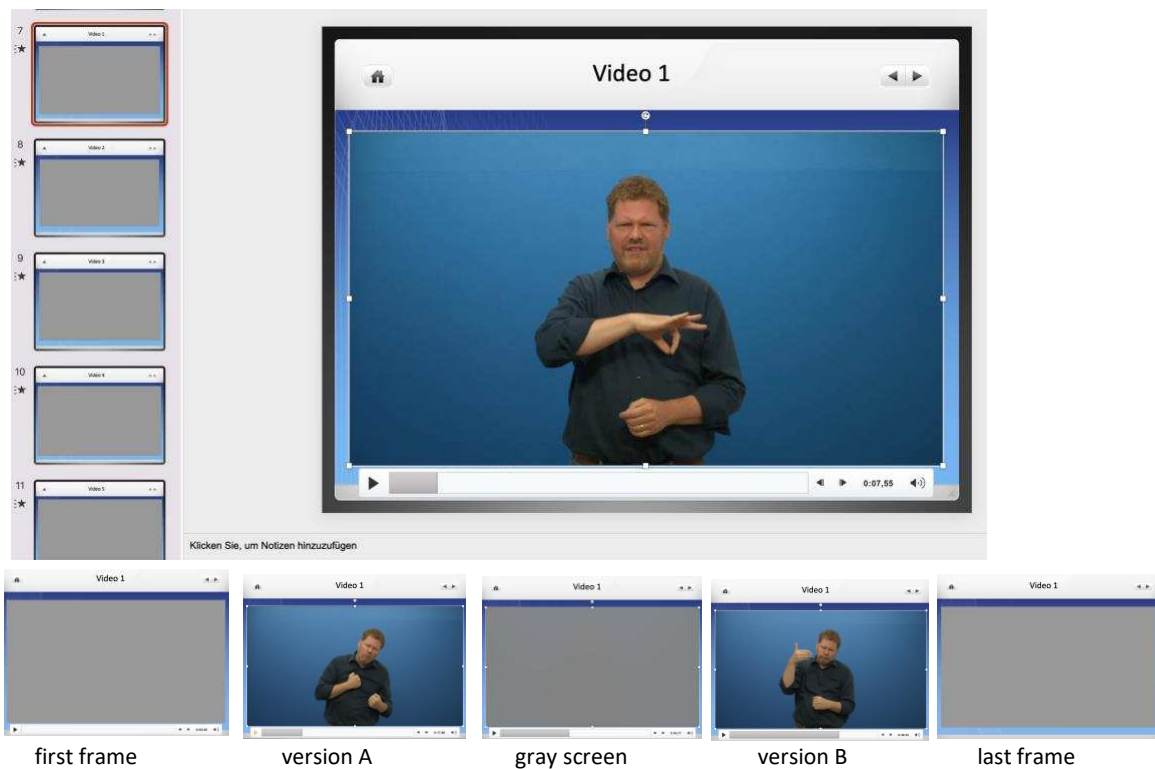
Fig. 1: buildup of the Powerpoint document

They were given the option to reply that neither of the two versions is a signed text that they would associate with these attributes. They could also opt for both options being signed in a natural and idiomatic way. The participants compared version A and B without being provided with the ST. Instead of using a scale such as the Likert scale, I designed the task in a way that the informants can give open answers and do not feel restricted in their responses. This is especially important for the second RQ (How do deaf informants describe the version that includes modality specific strategies and the version that does not respectively?), when the informants answered the question why they preferred their chosen version. For this metalinguistic task the informants need to be capable of accessing their implicit and/or explicit knowledge on DGS. This prerequisite influenced the process of recruiting informants for this study (see more on the sampling group in chapter 3.4).

This section has introduced the methodological approach of this study. In the next chapters, aspects that only have been outlined so far, will be described in much more depth. The application and function of the five MSSs will be described in the following section. The section that follows on chapter 3.3 provides an overview of the stimuli used in this study as well as a detailed explanation on the process of stimuli generation.

3.3 Material

In this chapter, definitions of the five applied MSSs will be given while putting them into reference with the broader academic discourse. Examples for each strategy will be presented and discussed in terms of stimuli development. Secondly, I will describe the tools that I used for creating these stimuli.

3.3.1 Modality Specific Strategies

In the following, the five strategies that were put to the test with deaf informants will be outlined. The categories *Constructed action / Dialogue* and *Coherence in Reference* are to be viewed differently from the other three categories. Researchers and scholars have already studied and described these two grammatical properties. Hence, there is a body of literature to include in these two sections. The remaining three strategies *Visual Elaboration*, *Context-Specific Adaptation* as well as *Explicit Description* do not build on the work of other scholars in the same way. After describing the targeted learning goals for L2/M2 learners, I will include three examples for each MSS from the stimuli.

3.3.1.1 Constructed Action / Constructed Dialogue

In signed as well as in spoken languages, linguists have defined a linguistic phenomenon in which a signer or speaker will enact or embody the behavior, thoughts or physicality of their subject. It can be described as a discourse strategy used widely within sign languages in which the signer uses his/her face, head, body, hands and / or other non-manual cues to represent the actions, utterances, thoughts, feelings and / or attitudes of a referent (Metzger, 1995). The term *constructed action* can be seen as an umbrella term that encompasses various approaches towards the subject in question and their corresponding typologies (Cormier et al., 2016): syntactic and semantic aspects (Lillo-Martin, 2013: point of view predicate; Quer, 2005: context shift and indexical variables; Schlenker, 2017: action role shift), a cognitive view (Liddell, 2003: surrogate space and

blending; Dudis, 2004: body partitioning) as well as sociolinguistics (Metzger, 1995; Fischer & Kollien, 2006: constructed dialogue).

Lastly, returning to Cuxac's work on iconicity, the concept of constructed action can be found in the following overview labeled as "transfer of person" (fig. 1). "Transfer of size and form" as well as "transfers of situations" are grammatical properties that are described as classifiers, depicting signs or SASS (size and shape specifier) by other scholars. For the purpose of this thesis the term constructed action will be used as it is most widely used as the generic term for the linguistic phenomenon described above (Metzger, 1995; Fischer & Kollien, 2006; Perniss, 2007; Stec, 2012; Cormier et al., 2016).
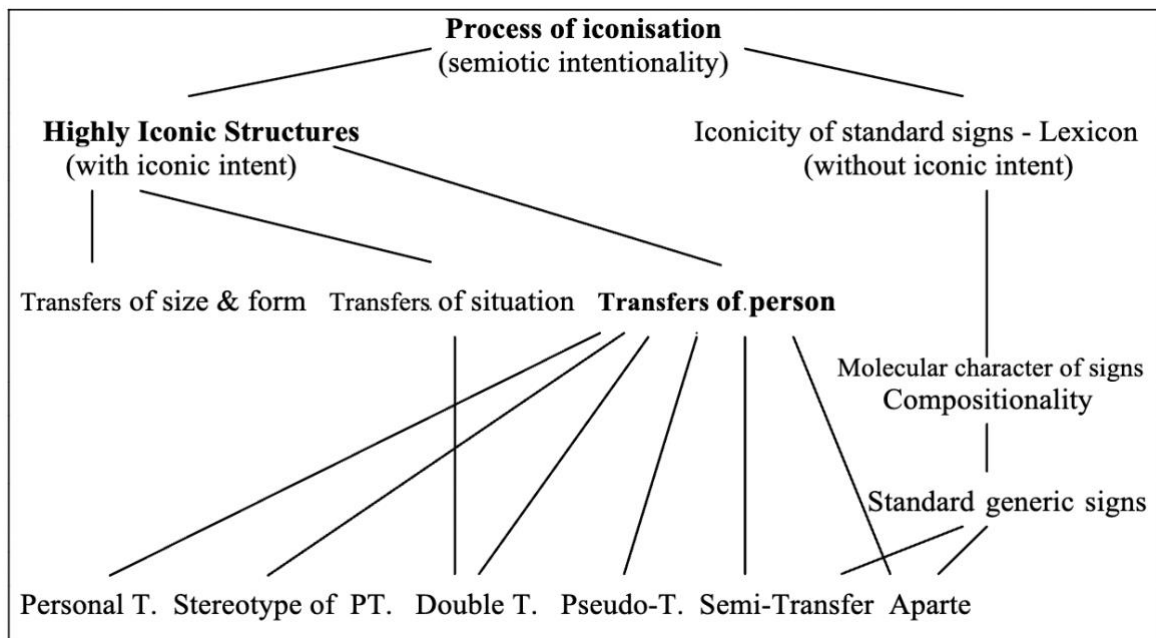
Fig. 2: Model of an iconic grammar for Sign Language (Sallandre & Cuxac, 2002, p.2)

As of now, constructed action is considered an integral part of discourse in SLs, research projects have been looking at learners of a SL and their command of this specific grammatical element. The notion that CA is predominantly used in narrative texts can be pinpointed in anecdotal evidence (talking to interpreting students and interns as well as colleagues) as well as in the academic discourse, as Fischer and Kollien explain (2006, p. 101): "CA has been predominantly described for narrative discourse sections. That could mislead to relating the performative features of CA to the unfolding of a narrative

text and to seeing CA as being unique to stories. This is not the case."[2] Yet, von Randow (2016a) confirms the aforementioned assumption and states that every student in her study views CA as being a tool that is to be used exclusively in narrative texts. A descriptive approach using data from SL corpora and other signed texts could shed more light on the use of CA and text types in SLs. In the context of this thesis, it is important to acknowledge that the stimuli were drawn from news texts and thus, on the other end of the continuum of narrative texts (see more on methodology in chapter 3).

When it comes to L2/M2 acquisition, there are a few studies that explored hearing learners' use of CA compared to how deaf signers switch between observer viewpoint and character viewpoint. Character viewpoint is another term for the concept of constructed action, whereas the narrator "does not put themselves 'on stage' [...] and does not convey their own feelings, thoughts, or inner states'' (Kurz et al., 2019, p.5) in observer viewpoint. As has been mentioned before in the chapter on visual-gestural modality, SLs allow for simultaneous structures. An example would be a dual viewpoint construction that depicts both character as well as observer viewpoints and is referred to as blended viewpoint (e.g. Dudis, 2004.) In their study, Gulamani et al. (2022) identified that hearing adult learners of BSL used the observer viewpoint significantly more often as well as significantly longer than the deaf signers telling the same picture story. The apparent preference for observer viewpoint (meaning not making use of CA) could be rooted in the learners' first language, English. A study that compared expressions of character viewpoint and observer viewpoint in a narrative text were able to pinpoint a preference for character viewpoint in the two BSL signers and a preference for observer viewpoint in the two English speaking participants (Earis & Cormier, 2013). Of course, the studies referred to are case studies and exploratory in nature. Nevertheless, it was observed that deaf signers seem to favor constructed action as a discourse strategy instead of describing a scene as an all-seeing narrator. These results support one of the underlying assumptions: Linguistic transfer from the L1 is more likely to happen on a structural level than on a phonological or lexical level.

Kurz et al. (2019) aimed at identifying patterns in hearing students acquisition of CA by testing them two times with a time frame of 6.5 months to 8.25 months apart. In the data, retelling a video clip of the comic 'Tweety and Silvester', the authors were not able

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[2] Translation by the author.

to detect a shared acquisition trajectory amongst the three cohorts of students. On the contrary, they had to acknowledge that they have not been aware of the apparent heterogeneity within the learners' group. Unfortunately, the authors do not refer to the curriculum in such detail that the reader can understand the methodology or the material with which CA is taught and learned.

Von Randow (2016a) describes that students learning DGS at the Institute of German Sign Language and Communication of the Deaf (Hamburg) noticed that there is "something" that instructors expect them to use more of and that students who do that, receive positive feedback. That "something" is apparently, however, not defined nor explained and not even named in a way that students can refer to and use in a systematic way. This "something", namely CA, was explored more by interviewing ten students asking them about their perception as well as their learning process. The results show that the participants did not have enough explicit knowledge to name the linguistic phenomena in question. They saw CA as being used in narrative texts exclusively, as something that takes time, something that is not necessary and that the same content can be expressed more efficiently by using lexemes. Secondly, von Randow (2016b) observes skills that can help students in their learning process: implicit knowledge, observing signed output for patterns and avoiding CA consciously to secure the narrative process. Students can be supported in their struggles as described by von Randow (2016a, 2016b) by (i) introducing them to CA and relevant theory, (ii) identifying CA in texts and discussing its functions, (iii) analyzing signers who use CA (upper body shift, manuals, nonmanuals), (vi) offering diverse examples of CA in different text types, and (vii) pointing out opportunities for the use of CA in their own texts.

In the following, I will show three examples from the stimuli illustrating the use as well as the function of CA. In fig. 3 the concept of a moment of silence is depicted as used in the ST "Merkel held a public moment of silence after the terrorist attack". Here, the concept of a moment of silence is realized by a parallel constructed action (see Fischer & Kollien, 2006), meaning that the body of the signer does not only depict the referent(s), but uses e.g. classifiers simultaneously. The manual signs function as classifiers depicting people with their heads down, while the head as well as the upper body of the signer depicts a mourning person with their head held down as well.

CA_par-MOMENT-OF-SILENCE

Fig. 3 Example 1 *Constructed Action*

The next example shown in FIG.4 shows a parallel constructed dialogue (see Fischer & Kollien, 2006) used for the concept of "false accusation" from the ST "Deutsche Bank had initially claimed that these were targeted false reports". The signer shifts with his upper body to the location where Deutsche Bank has been located in the sentence before. This shift signals the audience that it is Deutsche Bank that utters the statement. The index fingers point at the signer himself, hence at Deutsche Bank and accuse the institution in question of not being transparent in their communication with the public. The facial expression depicts the press who blame Deutsche Bank for their behavior.

CD_par-ACCUSATION

Fig. 4 Example 2 *Constructed Dialogue*

The last example in this section illustrates the use of a CA with the signer depicting the "[...] current Oxford professor [who] traveled to Berlin in the 1980s and looked behind the Iron Curtain for his doctoral thesis". Again, it is a parallel constructed action (see Fischer & Kollien, 2006) showing the wall by use of a classifier in picture 1 and 2. The

right hand shows the verb WATCH or SEE in picture 1 and the proper noun DDR in picture 2. In picture 3 the signer uses both hands to sign MEAN-WHAT.

CL_{left}-WALL   CL_{left}-WALL   MEAN-WHAT

CL_{right}-LOOK   / DDR /

Fig. 5: Example 3 *Constructed Action*

Table 1 gives an overview on the instances of CA and CD used in the stimuli. Besides listing the ST and how the MSS is applied in the respective stimuli, the table shows the function of used MSS. In the case of CA / CD it is one function only, namely to depict an action or an utterance that either took place in the past, will probably happen in the future, is imagined by a referent or serves as a prototype.

8 EU & Turkey	seemed friendly and there was even hugging	CA > FRIENDLY HUG	depiction
9 US & Turkey	observed	CA > LOOK-UP-DOWN, HUMAN-RIGHTS VIOLATE++	depiction
9 US & Turkey	Trump did his best to appear as a peaceful and charming president	CA > FRIENDLY SMILE IMPRESSION	depiction
9 US & Turkey	proudly bragged	CD > WE HAVE PLAN LIST-BUOYS IS-ATTACK	depiction
10 Election France	who has seen many French presidents come and go, to just welcome Macron with nice words	CA > CL-1-PERSON_{BACK>MOV:CENTER} CL-1-PERSON_{FRONT>MOV:CENTER AWAY}, CL-1-PERSON_{FRONT>MOV:CENTER AWAY}, CL-1-PERSON_{FRONT>MOV:CENTER} HAND-SHAKE AWAY. HAND-SHAKE, DISCUSS, WORD++, DEBATE, LOBBY	depiction

Stimuli	Source Text	Applied in Stimuli	Function
2 Nizza	public moment of silence	CA$_{PAR}$ > HEAD-LOWERING	depiction
3 NATO	Schulz criticize Trump	CD > CRITICISM	depiction
3 NATO	autocrat	CA > EGOISM RULES ONE-SELF	depiction
3 NATO	Trump humiliate head-of-states	HEAD-OF-STATE INDxTHEY ALLY$_{NEG}$, HUMILIATE++	depiction
4 Olympic Games	overshadowed	CAPAR > MOTIVATION JOY GOOD++ DISAPPOINTMENT	depiction
4 Olympic Games	visibly unimpressed in the face of criticism	CA > INTEREST-NO, LEGS-UP, WAVE-OFF	depiction
4 Olympic Games	delayed doping tests	CA > DELAY++, STALL++	depiction
4 Olympic Games	Bach praised	CD > OLYMPIC GAMES PROGRESS CA > BEAUTIFUL COLOR PASTE UP NO. BRAZIL THIS-WAY, RIO REALITY PICTURE THIS-WAY MANY PROBLEM++ BUOY LIST	depiction
5 Deutsche Bank	emphatically announced a culture change	CD > TRUE CHANGE++	depiction
5 Deutsche Bank	investors continued to buy shares and invest	CA > CL-BANKNOTE-INVEST++	depiction
5 Deutsche Bank	claimed that these were deliberate false reports	CD$_{DEUTSCHE.BANK}$ > ACCUSATION NO, INFLUENCE$_{>MOV:PRESS.to.DB}$ AIM PICTURE-CROOKED	depiction
6 Charlemagne-Prize	looked behind the Iron Curtain	CA > LOOK-OVER GDR MEAN-WHAT	depiction
7 Bundeswehr	strictly organized Bundeswehr	CA > SOLDIER-STAND-AT-ATTENTION	depiction
7 Bundeswehr	without anyone noticing	CA > NON-KNOWLEDGE NETWORK ESTABLISH	depiction
7 Bundeswehr	go out for a beer with their subordinate	CA > CHAT	depiction

Table 1: Overview CA/CD used in the stimuli

3.3.1.2 Coherence in Reference - Referentielle Kohärenz

A widely used example for transfer (see chapter 2.2) in spoken language references are null-subject languages and non-null-subject languages, such as Spanish and English (Bel et al., 2015): Native speakers of English who are learning Spanish, might use pronouns too often and in syntax structures when it is not necessary, at least. The discourse structures in the L1 and L2 lead to an over-redundancy when producing Spanish sentences and texts. This phenomena has been described by some scholars as a strategy to cope with processing demands, even when there is no risk of ambiguity (Sorace et al., 2009).

References in SLs are expressed by using the signing space that the visual-gestural modality allows signers to manipulate. The signing space is in front of the signer's torso and is in general the space where signs are produced (Boers-Visker & Van den Bogaerde, 2019) and located. Figure 2 gives a comprehensible overview on various devices that manipulate the signing space by creating and utilizing loci.
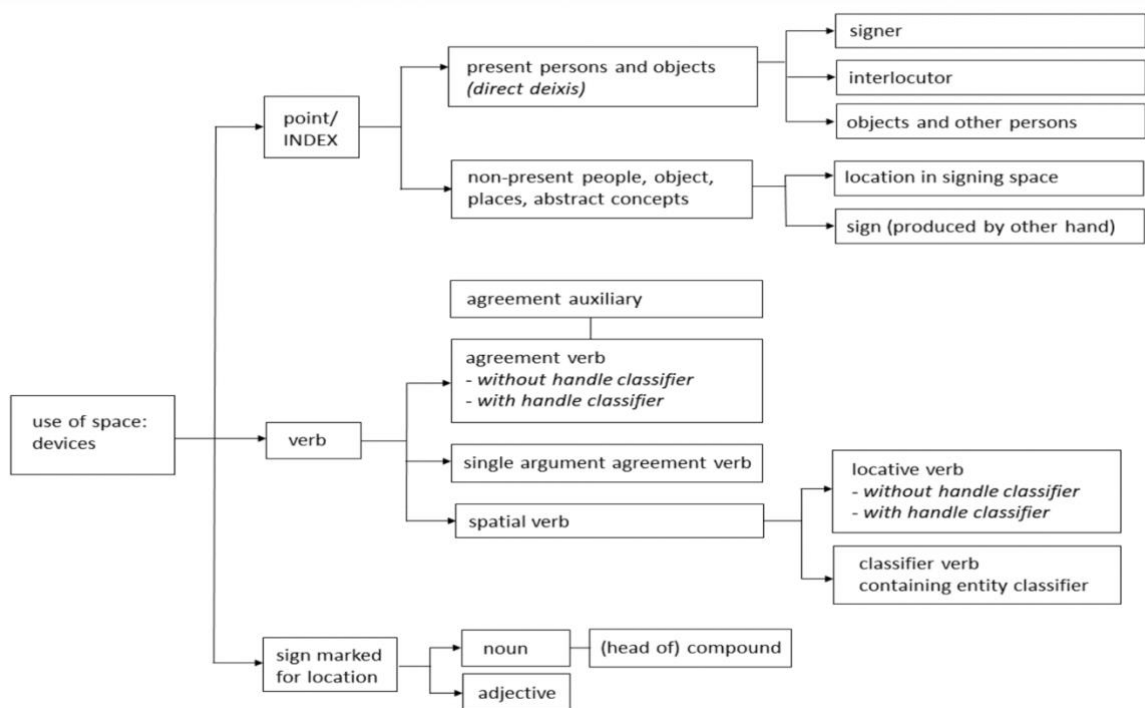
Fig. 6: Devices to create and utilize loci (Boers-Viskers & Van den Bogaerde, 2019, p.414)

Signs can be produced within that space in a neutral way, without ascribing the space a specific meaning nor by establishing a relationship between these signs. References, however, are used and located in the signing space in a very conscious way. Signers

associate a sign with a particular location and thus introduce a referent. Associating the locus with a referent is called nominal establishment (Sandler and Lillo-Martin, 2006) and allows the signer to refer back to that set loci without having to reintroduce the referent over and over again. This anaphoric use of deixis is done by pointing and expressing pronouns in a signed discourse (Pfau, 2011). The terms *grammatical space* or *semantic space* represent this use of space in a clearer way and denote the dynamic organization of the semantically structured space as well as the grammatical meaning that can be encoded (Liddell, 1990; Engberg-Pedersen, 1993).

Bel et al. (2015, p. 6) state that "different anaphoric expressions exhibit different preferences for discourse functions" and categorize these functions in reference introduction, reintroduction and maintenance. Studies have shown that L2/M2 learners in SLs prefer overt pronouns, even in reference maintenance when L1 signers use different strategies (Bel et al. 2015). These findings as well as my own observations are the starting point for the second strategy that I want to introduce, a strategy that is based on the function of maintaining a reference. *Coherence in Reference* describes a coherent use of the signing space by (i) using nominal establishment (ii) showing the relationship as well as interaction of different referents (iii) using and adapting classifiers to the type and number of referents in a systematic way.

Coherence in Reference as well as its application will be illustrated below. In the first example the MSS is established by using the signing space throughout the whole utterance in a cohesive way as can be seen in FIG. 7. The ST refers to two experts who are working on their report independently: "The commissioning of experts resulted in two different reports that failed to provide clarity." The signer firstly sets up the two experts on the right and left respectively. Then he signs the verb COMMISSION to the respective loci and shows the process of writing the report by signing BEING IN PROGRESS in relation to the loci as well. The sign RESULT is signed in a neutral space, before the signer refers back to the established loci by signing CONTENT on the right and on the left. The signs DIFFERENT, again on the right and left respectively, show that the two reports did not provide clarity. The sign CONTRADICTION sums that up and presents the result one more time. Establishing loci in signing space and referring back to them can create coherence in a text.

EXPERT REPORT   PERSON_{RIGHT+LEFT}   COMMISSION_{RIGHT}

COMMISSION_{LEFT}   PROCESS   RESULT

CONTENT_{RIGHT}   CONTENT_{LEFT}

DIFFERENT   DIFFERENT   CONTRADICTION

Fig. 7: Example 1 *Coherence in Reference*

In this second example, illustrated in Fig. 8, coherence is not created by using the signing space, but by adapting the verb WIN to the plural of GOLD MEDAL and thus ensuring

predicate-object agreement. The ST "The German team won gold 17 times" gives the signer the opportunity to produce a coherent text by recognizing the plural in the object GOLD (MEDAL) and manipulating the predicate in a way so that it agrees with the object's number.

17-TIMES   WIN++

Fig. 8: Example 2 *Coherence in Reference*

This last example in fig. 9 shows how the signer depicts the person in question owning two passports: "[...] has a German as well as a Turkish passport [...]". By using a handling classifier that depicts the person holding two passports in their hands, the signer refers back to the object and thus establishes coherence.

/ GERMANY /   PASSPORT   / TURKEY /

| PASSPORT | THERE | CL-HOLD-PASSPORT_{RIGHT+LEFT} |

Fig. 9: Example 3 *Coherence in Reference*

In Table 2 an overview of instances of *Coherence in Reference* in the stimuli is given. The examples are listed by the stimuli they are used in, the ST, application in TT as well as the function the MSS has. In this case, the MSS impacts the TT in a positive way by establishing agreement as well as by establishing loci and referring back to them.

Stimuli	Source Text	Applied in Stimuli	Function
1 Kenya	many people died	MANY HUMAN++ DIE++	number agreement subject-predicate
2 Nizza	many people were killed	MANY HUMAN++ DIE++	number agreement subject-predicate
3 NATO	recall: states had pledged to increase their defense spending	REMIND++: HEAD-OF-STATE++ SPEND-MONEY++ DEFENSE-BUDGET++	number agreement predicate1-subject3-predicate3-object3
4 Olympic Games	won 17 gold medals	MEDAL WIN SEVENTEEN-TIMES WIN++	number agreement object-predicate
5 Deutsche Bank	The commissioning of experts resulted in two different expert reports	EXPERT OPINION PERSON>LOCI:RE PERSON>LOCI:LI, ASSIGN>LOCI:RE ASSIGN>LOCI:LI, PROCESS>LOCI:RE PROCESS>LOCI:LI RESULT CONTENT>LOCI:RE CONTENT>LOCI:LI, DIFFERENT>LOCI:RE DIFFERENT>LOCI:LI CONTRADICTION UNCLEAR PERSPEKTIVE>LOCI:RE PERSPEKTVIE>LOCI:LI	use of space > loci
6 Charlemagne-Prize	award has been presented	CL-MEDAL CL-BAND++>loci:THEY (SASS)	agreement object-predicate
6 Charlemagne-Prize	Both the British and European flags flew at Aachen City Hall. Just as the heart of the laureate beats - for his homeland Great Britain and for Europe	CL-FASSADE TWO-FLAGS, CL-FLAG>LOCI:RE CL-FLAG>LOCI:LI, /EUROPE/ /GREAT BRITAIN/ CL-FLAG>LOCI:RE CL-FLAG>LOCI:LI. CL-PUT-IN-HEART>LOCI:RE&LI /A-S-H/ CL-PUT-IN-HEART>LOCI:RE CL-PUT-IN-HEART>LOCI:LI CL-HEARTBEAT LINK	use of space > loci
8 EU & Turkey	between the EU and Turkey [...] meeting between EU politicians and Erdogan [...] discussed	/EU/>LOCI:RE /TURKEY/INDxLI CL-TENSION. /EU/ POLITICS-PEOPLE++>LOC:RE /ERDOGAN/>LOC:LI CL-MORE-PERSON>MOV:CENTER CL-1-PERSON>MOV:CENTER DEBATE	use of space > loci agreement number subject-verb

8 EU & Turkey	who has a German as well as a Turkish passport	//GERMAN/ PASSPORT /TURKEY/ PASSPORT HAVE CL-PASSPORT-HOLD-IN-HANDRE CL-PASSPORT-HOLD-IN-HANDLI	agreement object-predicate
8 EU & Turkey	meeting between the EU politicians and Erdogan	/EU/ POLITICS-PEOPLE++>LOCI:RE /ERDOGAN/>LOCI:LI CL-MORE-PERSON>MOV:CENTER CL-1-PERSON>MOV:CENTER DEBATE	use of space > loci agreement number subject-verb
9 US & Turkey	meeting between Trump and Erdogan [...] two exchanged views	/TRUMP/>LOCI:RE /ERDOGAN/>LOCI:RE MEET CL-PERSONRIGHT>MOV:MIDDLE CL-PERSONLEFT>MOV:MIDDLE EXCHANGE	use of space > loci agreement number subject-verb
9 US & Turkey	both then appeared before the press	CL-1-PERSONRIGHT>MOV:CENTER CL-1-PERSONLEFT>MOV:CENTER	use of space > loci agreement number subject-verb
10 Election France	Marine LePen and Emmanuel Macron [...] very different opinions on the subject of Europe and fundamentally different ideas about France's future	/LEPEN/>LOCI:RE /MACRON/>LOCI:LI BOTH COMPETITION. /EUROPE/ PERSPECTIVE>LOCI:RE PERSPECTIVE>LOCI:LI DIFFERENT. /FRANCE/ FUTURE PICTURE>LOCI:RE PICTURE>LOCI:LI DIFFERENT	use of space > loci
10 Election France	initial talks [...] dependent on each other and must support each other	DEBATE>MOV:RE&LI.TO.CENTER PROCESS CLEARLY IMPORTANT NEED SUPPORT>MOV:RE.TO.LI.AND.VICE.VERSA	use of space > loci agreement subject-object-predicate

Table 2: Overview Coherence in Reference used in stimuli

3.3.1.3 Visual Elaboration - Additive Visualisierung

International Sign (IS)[3] has to exploit iconicity as well as spatial manipulation to the extreme (Rosenstock, 2008) in order to make intelligibility possible, at least to a certain degree (see Whynot, 2016 for discussion). This results in a relatively rich and structured grammar (Allsop et al., 1994) with features that can be identified in national SLs as well (Moody, 1989; Locker McKee & Napier, 1999). Oyserman (2022) states that visual

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[3] There has been a publication by Rathmann and Quadros (2022) supporting the idea that International Sign (IS) can actually be seen as a language, at least on a sociolinguistic level. The authors do, however, acknowledge that political implications have to be considered in acknowledging IS the status of a language . For the purpose of this thesis, I decided to use the term International Sign (IS).

(pictorial) thinking is to be seen as the core of IS, as deaf individuals employ the eyes and thus the visual channel (or modality) to a greater extent than hearing individuals (2015). When this is true for IS, it has to be true for national SLs as well, i.e. for DGS. The category of *Visual Elaboration* promotes hearing L2/M2 learners (i) in recognizing opportunities for (ii) making use of the visual-gestural modality by (iii) adding information that caters to that specific form of information processing in a systematic way.

In class as well as in individual conversations I have discussed the topic of intertextuality in DGS or in SLs in general. According to the Collins Dictionary intertextuality can be understood as "ways in which texts are interrelated and meanings that arise out of this" and "refers to the relationships or links that may be found among different books or texts" („Intertextuality definition and meaning | Collins English Dictionary", 2023). Following this definition, very little intertextuality can be observed in DGS. One example that I have seen signers refer to in a way that can be described as intertextuality is the poem "Schnee" (Snow) by Gunter Puttrich-Reignard (Trube) (*Weihnachtsgeschichte: „Schnee"*, Taubwissen, 2023). As DGS is one of the many unwritten languages in the world, it might be not surprising that intertextuality cannot be observed to the same extent as in written languages. However, I would like to suggest viewing the strategy *Visual Elaboration* as a visual form of intertextuality that caters to the visual-gestural modality of SLs.

The following example shown in fig. 10 illustrates my point well: The signer uses an entity classifier to depict the flag that is flying at half-mast and depicts the sad reason on his face. Flying a flag at half-mast is a picture that is printed in newspapers or shown in broadcasting news when governments call for national mourning.

CL-FLAG-HALF-MAST

Fig. 10: Example 1 *Visual Elaboration*

The second example, shown in fig. 11, refers to former president Donald Trump who "[...] did his best to appear as a peaceful and charming president". The signer uses a whole entity classifier to depict a mask of peaceful and charming behavior that the president is figuratively wearing. The facial expression in picture 1 depicts the non-authentic demeanor that was realized in the signs before by constructed action and carried into this next section.

MASKFALSE   MASK>PUT.ON

Fig. 11: Example 2 *Visual Elaboration*

In this third example, illustrated in fig. 12, the signer refers to the public that wonders "how it was possible that such a network could be established within the strictly organized Bundeswehr". The signer elaborates on the strict structures of the Bundeswehr by using a pure (orig. "reine CA", coined by Fischer and Kollien, 2006)

constructed action with his hand as hand depicting a prototype soldier standing at attention.

/ BUNDESWEHR /   STRUCTURE   STRICT

CA-SOLDIER

Fig. 12: Example 3 *Visual Elaboration*

Table 3 provides an overview of *Visual Elaboration* used in the stimuli by stating in which stimuli the MSS is applied, by listing the word or phrase from the ST as well as the use in the TT. In the last column, the function of the MSS is specified. In this case, the signer uses *Visual Elaboration* to depict entities, events and persons.

Stimuli	Source Text	Applied in Stimuli	Function
1 Kenya	starve	CL-CHEEKBONE, CL-RIBS	depiction
2 Nizza	national mourning	CL-FLAG-AT-HALF-MAST	depiction
4 Olympic Games	being close to reality in a city with many problems	BEAUTIFUL COLOR PASTE UP	depiction
5 Deutsche Bank	damage the company's reputation	PICTURE-CROOKED	depiction
5 Deutsche Bank	more transparent communication	CARPET-SWEEP-UNDER NO	depiction
7 Bundes-wehr	strictly organized Bundeswehr	CA > SOLDIER-STAND-AT-ATTENTION	depiction
7 Bundeswehr	bureaucracy	CL-PAPER-STACK++	depiction
8 EU & Turkey	demonstration	CL-Hold-Sign	depiction
8 EU & Turkey	the press	CL-CAMERA-CLICK	depiction
9 US & Turkey	Trump did his best to appear as a peaceful and charming president	MASK>MOV:IN.FACE	depiction
9 US & Turkey	secrets Trump had blurted out to Lavrov	RUMMAGE IN-DRAWER GIVE SECRET PAPER>MOV:AN.LAWROW	depiction

Table 3: Overview Visual Elaboration used in stimuli

3.3.1.4 Context-Specific Adaptation - Kontextuelle Konkretisierung

Anecdotal experiences in interpreting from German to DGS show that there are instances or even settings that can make it difficult for interpreters to honor the visual modality in their signed output. Interpreting in medical settings is such an example. Swabey et al. (2014) researched medical interview questions and how they are rendered by deaf physicians. A compelling example that falls under the category of *Context-specific Adaptation* is the english phrase "take medication" (p.111). The authors point to the broad semantic meaning of the verb "take" in English and assess the phrase "take medication" with its possible renditions in ASL: INJECTION-IN-ARM, INJECTION-IN-HIP, TAKE-PILL-1-TIME, TAKE-PILL-2-TIMES, INHALE-SLOWLY, INHALE-QUICKLY. Vague expressions in spoken languages do not transfer well into SLs with questions such as *where*, *how*, *how much* and *how often* demanding a rendition that describes the context as specific as possible.

There are certain structures that present challenges to interpreters in demanding background knowledge, analyzing the semantic context as well as acknowledging the different degree of specificity that SLs need in comparison to spoken languages. Such structures are generic terms such as *jewelry*, *allergy* as well as verbs like *to kill*, *to transport* or even *to eat*. A term that I stumbled across myself in the field of court interpreting shows the need for specifying according to context in a very evident manner: "fremde bewegliche Sache" is translated literally as a "foreign movable thing". The term is used in the context of theft and refers to an object that does not belong to the person in question and can be transported - a bag for example or even an animal (see STGB §242, §243). When the context is not known to the interpreter, they can only use several lexical items, choose best examples, prototypes or the subordinate category. A current example (June 12th 2023, Instagram, sexfee.conny) illustrates the challenge with generic terms in German well: A deaf person on Instagram who posts videos in DGS educating on the topics of women in particular and sex in general refers to a post by Tagesschau (a well known daily news broadcast in Germany).

Fig. 13: Post by Tagesschau on violence against women Fig. 14: Post by Sexfee.Conny

The interesting phrase in this example is the second bullet point that says that 34% of the men asked for this survey have turned violent on their female partners. The signer wants to make this post accessible in DGS and finds it challenging to do that in a modality specific form: 34 % OF MEN SAY FINISH DO VIOLENT TOWARDS WOMEN: SLAP ACROSS FACE, HIT, PUSH. EXACT CONTENT NO TELL. The signer decides to give examples for violent behavior against women, but discloses that the ST does not explain what is meant by the term "turn violent".

Fig. 15: QR Code to post by Sexfee.Conny

The strategy *Context-specific Adaptation* supports hearing L2/M2 learners in (i) recognizing generic terms (ii) acknowledging the need for specifying (iii) developing linguistic and other approaches (i.e. asking for clarification).

In the first of three examples, illustrated in fig. 16 the signer uses the lexeme PRIZE and adds a depiction to show the specific type of prize. *Prize/Award* is a generic term and can be understood as a trophy, a coin like the Nobel prize, a certificate or a medal. In this case the ST does not specify: "The British historian Garton Ash was awarded the Charlemagne Prize in Aachen." As I have mentioned before, background knowledge is necessary to be able to use a depiction such as this. In this case, the signer uses two size and shape specifiers (SASS) and depicts the band by using a classifier (C-handshape) as well as the medal itself (classifier, C-handshape).

/ K-A-R-L /   PRIZE   CL-BAND

CL-MEDAL

Fig. 16: Example 1 *Context-Specific Adaptation*

It is possible that the translation of the ST into English does not read as idiomatic or natural as this example, illustrated in fig. 17, refers to a German phrase used in this sentence. "At a large demonstration for Yücel's release there were a few hundred people." The German phrase *dabei sein* (engl. being there) can be used in many contexts and in combination with various words and phrases. In this sentence "a few hundred people were there". Although, in DGS there is a lexeme DABEI, which could theoretically be used for a literal translation, it does not show what the people were actually doing there. The signer uses a classifier depicting a large group of people marching. In the

context of a protest (which is the same sign in DGS - DEMONSTRATION - as the classifier), it is a large group of people protesting.

PROTEST++

Fig. 17: Example 2 *Context-Specific Adaptation*

The context in this example, shown in fig. 18, is a terrorist attack that happened in Nizza a few years ago: "The assassin killed a total of 86 people." The sentence itself does not specify on how the victims of the terrorist attack were killed. In the sentence before however, more context-specific information is given: "The celebration on the seafront for France's national holiday became the target of an assassin who drove a truck through the crowds." Given that information, the signer does not choose the lexeme MORD (MURDER) as the ST does. "Mord" or "murder" in English is another generic term that can be interpreted depending on the context of the text. By using a whole entity classifier to depict the truck (picture 2) and a limb classifier to depict the people falling (picture 3) the signer chooses to specify according to the context. Lastly, he uses the strategy of *Explicit Description* (next chapter) by adding the lexeme STERBEN++ (DIE++, in picture 4 of fig. 18) as well as the strategy *Coherence in Reference* (chapter 3.3.1.2) by manipulation the sign in a way that it agrees to the plural of PEOPLE-FALLING++. I would like to point out that in general two or more strategies can be used simultaneously in one utterance. Especially constructed action and constructed dialogue seem to appear in combination with other strategies (see also fig.12 CA-SOLDIER-STANDING-AT-ATTENTION for another example of simultaneous application of CA and *Visual Elaboration*).

TRUCK   CL-VEHICLE   CL-FALL++

CL-DIE++

Fig. 18: Example 3 *Context-Specific Adaptation*

Table 4 provides an overview on the instances that CSA is used in the stimuli. When looking at the column listing the function CSA has in the specific examples, one can see that there are actually two functions: contextualization and specification. Several examples specify by using classifiers (murder, Charlemagne-Prize, being-present). In the other three examples (stimuli 3, 9 and 10), the signer refers to context given in the text.

Stimuli	Source Text	Applied in Stimuli	Function
2 Nizza	murder	TRUCK CL-VEHICLE-DRIVING>PEOPLE-CROWD CL-FALL++ DIE++	specification
3 NATO	military alliance	NATO	contextualization
6 Charlemagne-Prize	Charlemagne-Prize	C-H-A-R-L-E-M-A-G-N-E-PRINCE CL-BAND, CL-MEDAL CL-AWARD>LOCI:AG	specification
8 EU & TURKEY	people were present	DEMONSTRATE-CL-MARCH	specification
9 US & Turkey	Turkish government	ERDOGAN	contextualization
10 Election France	Berlin	GOVERNMENT /GERMANY/	contextualization

Table 4: Overview Context-Specific Adaptation

3.3.1.5 Explicit Description - Explizite Beschreibung

Heise's bachelor's thesis (1997) has inspired me to look at the daily news broadcasting that is interpreted by a team of hearing and deaf interpreters (DIs). The DIs do not work with autocue, but with hearing interpreters who feed them in DGS. Heise used that setting to compare the signed output of the hearing interpreter, i.e. the feed, with the signed output of the deaf interpreter. In their comparison, Heise found interesting differences that they categorized in addition, substitution and omission and analyzed the data on phonological, morphological, lexical as well as syntactic level. As the aim of this master thesis is to develop strategies for L2/M2 learners, my approach is a very different one. However, it is interesting to see that Heise (1997) observed strategies the DI used that I would describe as *Explicit Description*. In their category of lexical addition they describe how the DI added the lexeme TOD (DEATH) when the hearing interpreter stopped at MORD (MURDER). This example illustrates well what the strategy *Explicit Description* does. In the German, spoken as well as written, language the concept of death is implicitly included in the term MORD (MURDER). When a person was murdered, the hearing audience would not be left wondering if the victim survived or not. Hence, the semantic meaning of MURDER includes the concept of death. When analyzing

Heise's (1997) results, the DI seems to perceive that in a different manner and thus decides to add the lexeme TOD (DEATH).

Heise (1997) describes what they observe in terms of *what* the DI does differently than their feeding interpreter. This MSS shows L2/M2 learners as well *how* it affects their signed output by (i) making aware of implicit semantic meaning and by (ii) teaching how to describe that meaning explicitly in their signed output.

In the following first example (see fig. 19), the ST gives information about an "Oxford professor [who] traveled to Berlin in the 1980s". The signer signs the lexeme PROFESSOR and describes afterwards what a professor typically does: being employed at a university, teaching, doing research and lecturing. In this case there is no implicit meaning to be made explicit per se. However, the signer tells a micro story by describing the prototype of a professor and their profession. Similarly to constructed action / dialogue, the strategy *Explicit Description* can be used in various forms: in a longer and more explicit form (like in this example) or in a shorter, denser form.

EMPLOYED   TEACH   RESEARCH

LECTURE
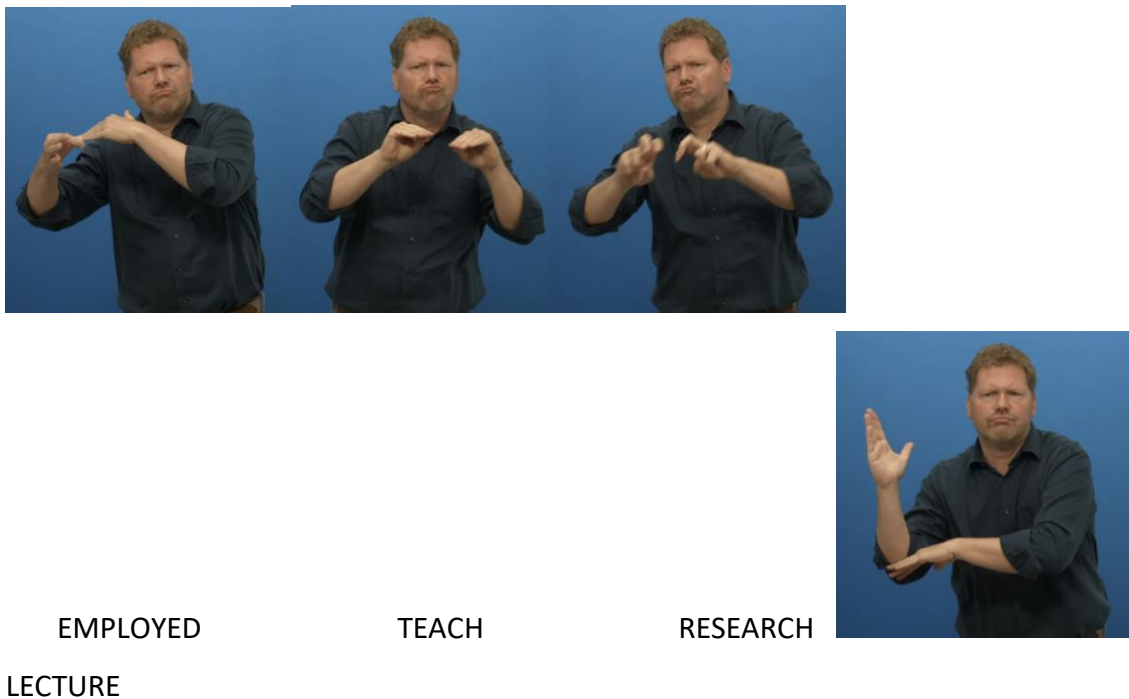
Fig. 19: Example 1 *Explicit Description*

The second example as illustrated in fig. 20 makes implicit information explicit by adding information to the TT that is not spelled out in the same way in the ST. "Deutsche Bank had informed too late about internal company unrest, so investors continued to buy and

invest in shares." Similarly to the example from Heise (1997), when the DI added DEATH to MURDER to state explicitly what happened to the victims of the terror attack, the signer adds two lexemes in this case. For the reader of the written German sentence it is clear that investors lost money because Deutsche Bank did not communicate about their internal issues. In DGS, however, this implicit meaning can get lost if one follows the ST. That is why the signer adds the signs STOCK MARKET (picture 3) and CRASH (picture 4). The signer makes the information that as soon as the public learns about the internal struggles, stocks from Deutsche Bank lose value, explicit to a DGS audience.

INVEST_{UNSUSPECTING}   STOCK-MARKET

CRASH

Fig. 20: Example 2 *Explicit Description*

This last example, shown in fig. 21, of the strategy *Explicit Description* illustrates what humanitarian aid can entail: "The United Nations (UN) has now stepped in to offer humanitarian aid." The signer elaborates on the term by signing FOOD, DRINK,

MEDICATION, SUPPLY, DISTRIBUTE. This chain of lexemes describes the concept of humanitarian aid and dismantles it into its possible components.

| EAT | DRINK | MEDICINE |

DELIVER++   DISTRIBUTE

Fig. 21: Example 3 *Explicit Description*

Moreover, I would like to use this example to point out that one utterance in German could be rendered in different DGS versions depending on which strategy or rather which combination of strategy one uses. The TT version above (fig.21) is realized by using *Explicit Description* only. One could add (parallel) constructed action to depict people standing around a truck waiting for the helpers to give them their share. Constructed action is a gradient linguistic feature (Fischer & Kollien, 2006) that one can use from a short snippet (maybe in a more formal setting) to "playing or acting it out" in a more elaborative way as has been described for IS (Moody, 2002). In this case, the signer can move on that spectrum as well from depicting people surrounding the truck waiting for

their share to additionally depicting the desperation or hope that the people might feel. The signer can choose to depict emotions by using facial expressions and by using (reine/pure) constructed action (Fischer & Kollien, 2006) to depict people reaching out for food or water. A third strategy one can apply in this example is to describe the people who are typically involved in humanitarian aid. When thinking of this concept, people in blue vests and blue helmets (United Nations) might come to mind and could serve as a prototype or an example given to support the information processing and thus understanding.

An overview on the functions of the MSS *Explicit Description* is given in Table 5: firstly, making implicit meaning explicit (stimuli 2, 3 and 5) and secondly illustrating on a term or phrase in the ST by telling a micro-story in DGS (stimuli 1, 3a, 3b, 4a, 4b, 4c, 6a, 6b and 7a, 7b).

Stimuli	Source Text	Applied in Stimuli	Function
1 Kenya	humanitarian aid	OFFER EAT DRINK MEDICINE DELIVER++ DISTRIBUTE	illustration
2 Nizza	man drove through the crowd	CL-VEHICLE-DRIVING>PEOPLE-CROWD CL-FALLING++	makes implicit meaning (murder = death) explicit
3 NATO	provocative statements, but to no avail	SPEECH WORD++ PROVOCATION CLEAR WORD++. CL-2LEGS++ INDxYOUR FACE IMMEDIATELY COLD-VIBES	illustration
3 NATO	fight IS and join EU is strong signal	/EU/ /NATO/ JOIN STRONG WE SHOW YOU SUPPORT SOLIDARITY DEFEND>LOCI.AGAINST.IS	makes implicit meaning (strong signal = support, solidarity) explicit
4 Olympic Games	public life stood still	PUBLIC LIFE STILL, SUBWAY CL-VEHICLE>MOV.STOP LEAVE, SHOPS++ CLOSED++, PEOPLE++ CL-PEOPLE -CROWD>MOV.LEFT FASCINATION	illustration
4 Olympic Games	on the fifth place on the medal table	TOTAL MEDALM:GOLD, MEDALM:SILVER-SILVER, MEDALEM:BRONZE PLUS TOTAL COUNTRY++ COMPARISON++ GERMANY LIST-FIFTH	illustration
4 Olympic Games	overshadowed	OLYMPIC GAMES (CAPAR >) MOTIVATION JOY GOOD++ DISAPPOINTMENT. SCANDAL DOPING	illustration
5 Deutsche Bank	Deutsche Bank had informed too late about internal company turmoil	INDxINFORMATION SCANDAL GO-WRONG TOO-LATE MAKE-PUBLIC. PEOPLE MONEY CA > CL-BANKNOTE-INVEST++ STOCK MARKET CRASH	makes implicit meaning (too late = crash, people lose money) explicit
6 Charlemagne -Prize	Oxford professor	EMPLOYED, TEACHING++, RESEARCH, LECTURE	illustration
6 Charlemagne -Prize	doctoral thesis	DOCTORAL THESIS RESEARCH, WRITING	illustration
7 Bundeswehr	that soldiers exploit what they learn in the Bundeswehr to carry out terrorist attacks with this knowledge	SOLDIER /BUNDESWEHR/ GAIN-KNOWLEDGE++ CL-KNOWLEDGE-GROWTH CL-KNOWLEDGE EXPLOIT INDx PLAN TERROR ATTACK	illustration
7 Bundeswehr	reflection of society	SOCIETY MIRROR CL-MIRROR OPEN-UP>MOV:LI BUNDESWEHR INDxli POLITICS MODERATE, CL-RIGHT CL-LINKS, CL-MIRROR /BUNDESWEHR/ ALSO RIGHT LEFT, CL-RIGHT CL-LEFT GROW++	illustration

Table 5: Overview Explicit Description used in stimuli

3.3.2 Stimuli

Several factors were of relevance in regard to developing the stimuli material. I wanted the deaf informants to be able to compare two versions - one version that includes modality specific strategies and one version that does not. Secondly, the individual stimuli had to be longer than one sentence in the ST. The strategy *Reference in Coherence* can only be tested when there is enough linguistic material to build references on, as there have to be enough entities and opportunities to refer back to

them in one individual stimuli. Another important factor was to generate stimuli that have a certain level of complexity. My first RQ addresses the question if the deaf informants participating in this study perceive the modality specific version in DGS as more natural, more idiomatic or/and more intelligible. Pertaining to the last aspect, it was important to generate stimuli that match a certain level of complexity. With stimuli that consist of only one phrase or sentence it is not probable that participants have issues processing and understanding the information. Considering these specifications, I decided to draw on the most well-known format of daily news (*Tagesschau* on ARD) which is broadcasted on another channel (Phönix) with sign language interpretation. The interpreting team was at the time composed of several hearing interpreters as well as one DI. The recordings of each broadcast are available in the media center on the official ARD homepage (*tagesschau (mit Gebärdensprache) - Videos der Sendung* retrievable in *ARD Mediathek, accessed: June 10th 2023*). Some topics were covered on several days which made it possible for me to compare the strategies hearing interpreters used with the signed output the DI produced. Another channel, ZDF, broadcasts a news format that is a little less formal and with 30 minutes twice as long as the Tagesschau. The *heute journal* broadcasts with hearing sign language interpreters online and makes shows available in the media center on the ZDF homepage (*heute journal retrievable* in *ZDF Mediathek, accessed: June 10th* 2023). As the topics that are covered in *Tagesschau* and *heute journal* tend to be similar, I was able to compare strategies that hearing interpreters used interpreting *heute journal* with the DI's way of interpreting *Tagesschau*. The process of generating the stimuli is similar to one part of the study Stone (2009) conducted in search of a Deaf translation norm.

Following the above described process, I created ten stimuli in total (see Appendix I), each with a modality specific version (target version) and with a version that did not consider any modality specific strategies (distractor) resulting in 20 videos in total. Table 6 gives an overview of each stimuli with the numbers of multiple MSS applied, ranging from 4 MSS (stimuli 1 Kenya) to 10 MSS (stimuli 8 EU & Turkey).

Stimuli	Modality-Specific Strategies
6 Charlemagne-Prize	3x Coherence in Reference 2x Explicit Description 1x Constructed Action / Dialogue 1x Context-Specific Adaptation
7 Bundeswehr	2x Explicit Description 2x Visual Elaboration 3x Constructed Action / Dialogue
8 EU & Turkey	4x Coherence in Reference 2x Visual Elaboration 4x Constructed Action / Dialogue 1x Context-Specific Adaptation
9 US & Turkey	3x Coherence in Reference 1x Explicit Description 2x Visual Elaboration 3x Constructed Action / Dialogue 1x Context-Specific Adaptation
10 Election France	5x Coherence in Reference 2x Constructed Action / Dialogue

Stimuli	Modality-Specific Strategies
1 Kenya	1x Visual Elaboration 2x Explicit Description 1x Coherence in Reference
2 Nizza	1x Coherence in Reference 1x Explicit Description 1x Visual Elaboration 1x Constructed Action / Dialogue 1x Context-Specific Adaptation
3 NATO	2x Coherence in Reference 2x Explicit Description 2x Constructed Action / Dialogue 1x Context-Specific Adaptation
4 Olympic Games	3x Explicit Description 1x Visual Elaboration 4x Constructed Action / Dialogue 1x Context-Specific Adaptation
5 Deutsche Bank	1x Coherence in Reference 1x Explicit Description 2x Visual Elaboration 3x Constructed Action / Dialogue

Table 6: Overview of MSS applied in stimuli

This results in the following numbers of MSS used in the total of 10 stimuli: 11x *Visual Elaboration (VE)*, 20x *Coherence in Reference (CR)*, 14x *Explicit Description (ED)*, 23x *constructed action / dialogue (CA/CD)* and 6x *Context-Specific Adaptations (CSA)*. One can see in fig. 22 that the MSSs are not distributed evenly. *CA/CD* and *CR* being the categories with the most examples in the stimuli, can be explained by looking at the function of the MSS and the compatibility respectively. In order to create coherence by the use of referents, one has to have enough linguistic material, i.e. entities, to refer back to. Once one or more loci are established, the signer can refer back to them several times. For CA/CD on the other hand, the principle of high compatibility with other MSSs applies. CA/CD is a linguistic feature that depicts entities and thus seems to occur often in combination with other MSSs.
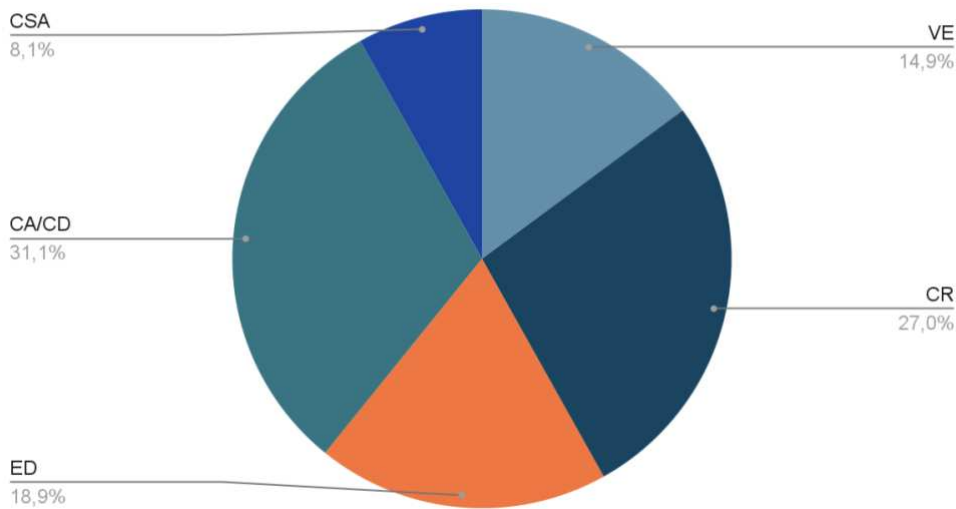
Fig. 22: Overview on distribution of MSS in the stimuli

In order to avoid misunderstandings in the process of data generation, I included an exercise trial giving the participants the opportunity to clarify before starting the actual study. Before beginning with the process of creating the stimuli, I had already asked a DI and instructor who has had experience in contributing to research projects as a sign model and consultant for the process. Hence, when we met to prepare the recording of the stimuli, I asked him to go through the versions that included MSS with me and to give me feedback on the target versions. One stimuli was changed after discussing the stimuli as he did not perceive the phrase IN-SCHÖNE-FARBE-TAUCHEN (literally: DUNK-IN-NICE-COLOR) to be an idiomatic phrase in DGS that deaf people would use for the concept of sugar coating something. In the following, I will present two of the ten stimuli that cover each strategy at least on time (please find the stimuli list in Appendix I). As glossing cannot do justice to signed texts, I added QR codes that will guide you to the respective video.

1. Example Stimuli DGS & English Voiceover Kenya

1. Example Stimuli German Kenya

In Kenia müssen die Menschen seit mehreren Monaten **hungern (AV)**. Eine **Dürre (EB)** plagt das Land und hat zum **Tod vieler Kenianer*innen (RK)**, darunter auch viele Kinder, geführt. Die Vereinten Nationen (UN) haben sich nun eingeschaltet und bieten **humanitäre Hilfe (EB)** an.

1. Example Stimuli Glosses DGS in German Kenya / modality specific version

KENIA PAAR MONAT++ FRÜHER-BIS-HEUTE MENSCH++ WAHNSINN SCHLIMM HUNGER **CL-DEPICT-WANGENKNOCHEN CL-DEPICT-RIPPEN**. **LAND REGEN KEIN SONNE**HEIß **PFLANZE-WACHSEN PFLANZE-VERDORREN**. **VIEL MENSCH++ STERBEN++** ÜBERWIEGEND KINDER. ORGANISATION /UN/ AKTIV **HUMANITÄR HILFE ANGEBOT ESSEN TRINKEN MEDIKAMENTE LIEFERN++ VERTEILEN.**

1. Example Stimuli Glosses DGS in German Kenya / second version without strategies

KENIA PAAR MONAT++ FRÜHER-BIS-HEUTE MENSCH++ WAHNSINN SCHLIMM HUNGER. LAND TROCKEN DESHALB VIEL MENSCH++ STERBEN ÜBERWIEGEND KINDER. ORGANISATION /UN/ AKTIV ANGEBOT HUMANITÄR HILFE ANGEBOT.

1. Example Stimuli English Kenya

In Kenia, people have been **starving (VE)** for several months. A drought (ED) is plaguing the country and has **led to the death of many Kenyans (CR)**, including many children. The United Nations (UN) has now stepped in to offer **humanitarian aid (ED)**.

1. Example Stimuli Glosses DGS in English Kenya/ modality specific version

KENYA FEW MONTH++ EARLIER-TO-TODAY HUMAN++ IMMENSE BAD HUNGER **CL-DEPICT-CHEEKBONES CL-DEPICT-RIBS**. **COUNTRY RAIN NO SUN**HOT **PLANT-GROWTH PLANT-WITHER**. **MANY HUMAN++ DIE++** MOSTLY CHILDREN. ORGANIZATION /UN/ ACTIVE **HUMANITARIAN AID OFFER EAT DRINK MEDICINE DELIVER++ DISTRIBUTE**.

1. Example Stimuli Glosses DGS in English Kenya/ second version without strategies

KENYA FEW MONTH++ EARLIER-TO-TODAY HUMAN++ IMMENSE BAD HUNGER. COUNTRY DRY THEREFORE MANY HUMAN++ DIE PREDOMINANTLY CHILDREN. ORGANIZATION /UN/ ACTIVE OFFER HUMANITARIAN AID OFFER.

----

2. Example Stimuli DGS & English Voiceover Nizza

2. Example Stimuli German Nizza

Bei einem Anschlag in Nizza kamen letztes Jahr **viele Menschen ums Leben (RK)**. Die Feier an der Strandpromenade zum nationalen Feiertag Frankreichs wurde zum Ziel eines Attentäters, der mit einem **LKW durch die Massen fuhr (EB)**. In Frankreich wurde **Staatstrauer verhängt (AV)** und auch in Deutschland hat Bundeskanzlerin Merkel einen Tag nach dem Anschlag eine öffentliche **Schweigeminute (CA/CD)** abgehalten. Der Attentäter hat insgesamt 86 Menschen **ermordet (KK)**.

2. Example Stimuli Glosses DGS in German Nizza / modality specific version

LETZTES JAHR N-I-Z-Z-A VIEL **MENSCH++ STERBEN++**. FRANKREICH VIEL MENSCH++ NATIONAL FEIERTAG FEIER CL-MENSCHENMENGE. PLÖTZLICH MANN LKW CL-FAHRZEUG-FAHREN>MENSCHENMENGE **CL-FALLEN++**. FRANKREICH STAATSTRAUER **CL-FLAGGE-AUF-HALBMAST**. DEUTSCHLAND BUNDESKANZLER /MERKEL/ ÖFFENTLICH SCHWEIGEMINUTE DENKEN **CAPAR-KOPF-SENKEN**. ANGRIFF-PERSON INSGESAMT SECHSUNDACHTZIG MENSCH++ **LKW CL-FAHRZEUG-FAHREN>MENSCHENMENGE CL-FALLEN++ STERBEN++**.

2. Example Stimuli Glosses DGS in German Nizza/ second version without strategies

LETZTES JAHR N-I-Z-Z-A VIEL MENSCH++ STERBEN. FRANKREICH NATIONAL FEIERTAG VIEL MENSCH++ FEIER CL-MENSCHENMENGE. PLÖTZLICH MANN LKW CL-FAHRZEUG-FAHREN>MENSCHENMENGE. FRANKREICH STAATSTRAUER. DEUTSCHLAND BUNDESKANZLER

/MERKEL/ ÖFFENTLICH SCHWEIGEMINUTE DENKEN. ANGRIFF-PERSON INSGESAMT SECHSUNDACHTZIG MENSCH++ MORD_{MG:BAM}.

2. Example Stimuli English Nizza

In an attack in Nice last year **many people were killed (CR)**. The celebration on the seafront for France's national holiday became the target of an assassin who **drove a truck through the crowds (EB)**. France declared **national mourning (VE)** and Chancellor Merkel also held a **public moment of silence (CA/CD)** in Germany the day after the attack. The assassin **murdered (CSA)** a total of 86 people.

2. Example Stimuli Glosses DGS in English Nizza / modality specific version

LAST YEAR N-I-Z-Z-A MANY **PEOPLE++ DIE++**. FRANCE MANY PEOPLE++ NATIONAL HOLIDAY CELEBRATION CL-CROWD. SUDDENLY MAN TRUCK **CL-VEHICLE-DRIVING**_{>PEOPLE-CROWD} **CL-FALLING++**. FRANCE NATIONAL MOURNING **CL-FLAG-AT-HALF-MAST**. GERMANY CHANCELLOR /MERKEL/ PUBLIC MOMENT-OF-SILENCE THINK **CA**_{PAR}-**HEAD-LOWERING**. ATTACK-PERSON TOTAL EIGHTY-SIX PEOPLE++ **TRUCK CL-VEHICLE-DRIVING**_{>PEOPLE-CROWD} **CL-FALL++ DIE++**.

2. Example Stimuli Glosses DGS in German Nizza / second version without strategies

LAST YEAR N-I-Z-Z-A MANY PEOPLE++ DIE. FRANCE NATIONAL HOLIDAY MANY PEOPLE++ CELEBRATION CL-CROWD. SUDDENLY MAN TRUCK-CL VEHICLE DRIVING_{>CROWD}. FRANCE NATIONAL MOURNING. GERMANY CHANCELLOR /MERKEL/ PUBLIC MOMENT-OF-SILENCE THINK. ATTACK-PERSON TOTAL EIGHTY-SIX PEOPLE++ MORD_{MG:BAM}.

The stimuli were recorded in a professional studio with backdrop, lights and a high-quality camera. The process of recording challenged us in two aspects: Firstly, the studio is not equipped with an autocue and the individual stimuli were too long to sign each stimuli from memory. After two stimuli, we decided that I would sign the stimuli and the DI would copy my signing. This is a common practice in the field of conference interpreting and is referred to as mirroring or shadowing (Boudreault, 2005). Secondly, it was difficult for the DI to sign the versions that did not use MSS. It felt unnatural for

him and sometimes he would add a constructed action as he would when signing the same content in another context. The recording did present me with challenges that had in turn implications on the data generation (see chapter 3.4).

After editing the video material, I created a powerpoint document and inserted the video clips. I randomized the order of the stimuli (1-10) as well as the order of the modality specific version and the second version (A-B). Versions A and B were edited into one video with a clear cut (gray screen) in between and ranged from 0:46 minutes to 2:28 minutes. For the introduction as well as the explanation of the study procedure, I asked another DI to record a video. This way, the introductory video and the stimuli were perceived as separate sections by the participants. In order to generate metadata on the participants, I created a questionnaire asking for demographic data, the individual's language biography and use as well as family structures and communication within this social network (see Appendix VI and VII).

This section has described the five MSS by providing further theoretical background when possible, defining each strategy as well as explaining possible learning outcomes for L2/M2 learners. Moreover, each MSS was illustrated by three examples from the stimuli. Additionally, I provided five tables that feature every MSS applied in the stimuli, the respective ST as well as the function. In the following pages, I will give a detailed account on the data that was generated in two parts. In addition, I will outline the process of data analysis before turning to the results in chapter 4.

3.4 Data

In the chapter that follows, I present the data generation in 2017 and in 2023 as well as the data analysis. Before proceeding to the data generated with the stimuli, I will elaborate on the informants that participated in the study. Since I have used the same method and the same stimuli in 2017 and 2023, I will present the two groups of participants as one sample group.

As can be seen in the overview on demographic data in Table 7, the sample group is well balanced in regard to gender identity. Pertaining to age, however, one can see that most

participants are in the age group ranging from 20 to 30 years old. This bias results from the second part of data generation. Since the participants did the task remotely, I reached out to members of the younger generation to ensure that they had access to the material that I provided, were familiar with the software used to record themselves as well as with the platform that was used to send the video files back to me.

participants	N=20	
gender identity	non-binary	N=4
	female	N=7
	male	N=8
age range	20-51 years old	
mean age	31.5 years old	
age groups	20-30 years old	N=11
	31-40 years old	N=5
	41-50 years old	N=3
	51-60 years old	N=1

Table 7: Demographic data sample I

Considering that the place of birth as well as the current place of living can possibly influence the perception of signed texts, it is relevant to look at Table 8. One participant (KB201724) expressed that they were not sure if an idiom was maybe used in Hamburg (where the first part of data was generated), but that they have not seen this phrase in DGS yet. Although the distribution is quite balanced in regard to the place of birth, one can see that the most participants seem to live in major cities such as Hamburg (North of Germany), Berlin (East of Germany) and Cologne (West of Germany).

	birthplace	current place of living
North of Germany	N=2	N=5
South of Germany	N=5	N=1
West of Germany	N=5	N=7
East of Germany	N=4	N=7
Middle Germany	N=2	N=0
Other country	N=2	N=0

Table 8: Demographic data sample II

Although the hearing status nor the respective identity was not a deciding factor in recruiting participants, one can see in Table 9 that the total of 20 participants indicated

that they identify as deaf. Just over a third stated that they have acquired DGS from birth which makes them the largest group within the sample group.

identify as deaf	N=20	
AoA DGS	0 years old	N=14
	1-6 years old	N=2
	7-18 years old	N=3
	18 years or older	N=1

Table 9: Demographic data sample III

With one third of the sample group having acquired DGS from birth, it is conclusive that the same number of participants indicated DGS as being their first language. It can be seen in Table 10 as well that 80% and 90% respectively prefer to communicate in DGS and mainly communicate in DGS. Participants were asked to answer this question in a multiple choice format with multiple answers possible*. One participant stated that they mainly communicate in spoken German as well as DGS, but prefers to communicate in DGS only. Two participants answered that they communicated mainly in DGS and written German, but preferred communication in DGS as well. A fourth participant indicated that they prefer communication in written German, but mainly communicate in DGS.

	DGS	other SL	German		no answer
first language	N=14	N=3*	N=2		N=1
			spoken	written	
mainly communicate in*	N=19	N=0	N=1	N=2	N=1
prefer to communicate in*	N=18	N=0	N=0	N=1	N=1

Table 10: Language and communication data sample

In Table 11 the family structure as well as the member's hearing status can be seen. As the questions on AoA, communication patterns and preference as well as family members' hearing status appear to be linked to each other, it seems to be consistent that again around a third of the parent 1 and parent 2 are deaf. What is interesting in this table is that there is a high number of deaf siblings distributed across those families.

	deaf	hard-of-hearing	hearing	none
Parent 1	N=13	N=1	N=6	
Parent 2	N=14	N=0	N=6	
Sibling	N=13	N=2	N=9	N=1

Table 11: Family data sample

The last table (12) illustrates the professional background of the sample group. What is striking is that 40% of the participants are students and 25% have a profession that is related to DGS, e.g. teaching DGS. A key factor in recruiting the participants for this study was that they have a (professional) background that makes metalinguistic knowledge accessible. As explained earlier, accessibility to and familiarity with software and technical equipment was a second essential aspect. As a result, the sampling is biased when it comes to age and occupational background. The data on the sampling group has to be kept in mind when discussing the results of this study in chapter 4.

student	N=8
apprenticed profession	N=4
position requiring completion of higher education	N=2
profession related to DGS	N=5
in training	N=1

Table 12: Occupation and profession data sample

3.4.1 Data generation in 2017

The first part of data was generated in 2017. The deaf informants and myself met in presence in an institute that provided a room with equipment. I had prepared the individual computers by saving the Powerpoint presentation with the stimuli on each computer. After welcoming the informants I explained how we would proceed. Firstly, I asked them to fill in the questionnaire, standing by for any questions. After collecting the questionnaires, I asked the participants to open QuickTime Player and start a new recording. I explained that the software would record the whole time, so they did not have to worry about technicalities. Every participant watched the introductory video on their own. After clarifying some remaining uncertainties, I asked the informants to watch the first video, i.e. the test video, and to answer the two questions afterwards:

1. Which version do you prefer?

2. Why do you prefer that version?

As the first video is designed to be a pretest, the participants had the opportunity to ask questions before starting the task. As soon as every participant felt that the task was clear, they watched the ten stimuli and signed their answers at their own pace. After having finished the study, the participants stopped the recording and left the room. Once everyone had left, I saved the recordings on the computer, then on my external hard drive. Having secured the data, I deleted the recordings from the computer. I have stored the video recordings on that external hard drive, digitalized the questionnaire and form of consent and stored these documents on that same external hard drive that I have bought for data generated in this research project exclusively. For data protection services I labeled the videos with a code (KB201701 to KB201732) and did so accordingly with the questionnaires.

I conducted the study with 32 deaf signers in total. As the room was too small to host all of them at the same time, I did two runs (one group with 14 participants and the second one with 18 participants). At the time I was enrolled at the University of Hamburg, studying in the interpreting program (Master of Arts) that the IDGS offers. I generated the data for an assignment in the course of the module "Supervised Researching". When I decided to not continue with the program due to health issues, I did not get to work with the data.

As soon as I had decided that I wanted to pick up that research project for my MA thesis with EUMASLI, I reached out to one contact person from each group that I have known well. For me to be able to continue this research using the data that was generated in 2016 while I was affiliated with another institution, I needed the participants to sign another form of agreement (see Appendix III). As my two contact persons connected with the other informants via messengers such as whatsapp, I recorded a video that explained why I reached out to them as well as a translated version from the agreement form. Additionally, I sent them the old form of consent (Appendix II), the new form of consent to sign (Appendix III), and the questionnaire (Appendix VI and VII) that they had filled in in 2017 and I would analyze for the purpose of this study as well.

From the two groups of 32 participants, 11 responded and sent me the signed new form of agreement back. Some of the people contacted, did not react or answered that they did not want to be part of the research project this time around. Especially my contact

person for the second group, however, had lost touch with many former participants. A member of the former group who had however not participated in my study, expressed concerns about my project and asked for more details as well as how deaf communities would benefit from my research (please find more information in the next section). One participant that decided to sign the new consent form, did the task twice back in 2017, since we had technical issues the first time. That might have resulted in either more data as the participant noticed more the second time or in less data as the participant did not answer in the same elaborated way as the first time. Considering the data from a participant redoing the task, does however not falsify the data in this case. That is why I decided to include the data in the analysis.

3.4.2 Data generation in 2023

As I devised this study eight years ago, when I had graduated and worked as an interpreter for only a year, I noticed some discrepancies and incongruities looking at the material again. Since I had to find English terms for the four modality specific strategies that I propose[4]. When engaging with the material again, after eight years, I was not satisfied with the term *Stringente Chronologie* (literal translation: stringent chronology) as it did not depict the effects this strategy has on the TT. After considering the examples in the stimuli and the impact the applied strategy has on the signed TT, I changed the name to *Explizite Beschreibung* and *Explicit Description* in English respectively. Furthermore, I had another thorough look at the stimuli and detected some inconsistencies. Consequently, without changing the stimuli itself, I re-evaluated applications of strategies in some instances. The eight years between the first part of data generation and the second part gave me time and space to apply the modality specific strategies in my own interpreting, when teaching students of SLI as well as supervising interns. The engagement with the didactic tool in these contexts and my personal growth as an interpreter and researcher as a student of EUMASLI, provided me

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[4] Constructed action and constructed dialogue is a common term used as well by Fischer & Kollien, 2006.

with opportunities to enhance explanations as well as correct definitions, work on theoretical implications as well as practical application.

Considering the significantly smaller number of participants, I decided to generate more data in 2023. Since I was not affiliated with the University of Hamburg anymore and thus did not have access to the necessary infrastructure, I chose to not conduct the study in person, but remotely. Two years of Covid-19 and the readjustment to working more from home, made me confident in finding participants who are ready to do the task individually remotely. Nevertheless, my target group were young people who would probably be familiar with the software needed to partake in the study. Again, I experienced support from a member of the deaf community who functioned as my person of contact. I found it ethically problematic to directly ask deaf signers with whom I have a professional relationship as an interpreter to participate in my study. They might feel pressured into agreeing, feeling anxious about how a refusal would impact our professional relationship. Another aspect that I was aware of was the general skepticism towards hearing people doing research on deaf people, rather than

with them. Although this is a topic that has been part of the public discourse as well as heatedly discussed within deaf communities for years, the distrust in any kind of research has been at a high due to a recent incident related to a hearing interpreter and PhD candidate here in Germany[5].

By forwarding a video from me explaining my inquiry in DGS, my contact person vouched for me and thus created a trusted relationship without me even knowing some of the participants in person. Nevertheless, one deaf person reached out and sent me a video asking about details on the research project and expressing their skepticism by referring to the aforementioned incident. After explaining my research in more detail, the person in question agreed to participate, also "because Paula[6] has asked me and I trust her".

Before I sent the PowerPoint presentation to the informants, I asked my person of contact to do the task herself. I incorporated her feedback and adjusted the material as can be seen in fig.23 to the remote situation by adding an introductory video that I signed myself as well as a video to thank them for partaking in the study in the end.

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[5] Link to the English translation of an open letter demanding the ethical and professional reappraisal of the PhD thesis: https://www.taubenschlag.de/wp-content/uploads/2023/02/Open-letter.pdf
Link to the IS translation: https://www.youtube.com/watch?v=zXFwEabB9lc
[6] This is a pseudonym.

Moreover, I added two more slides pointing out that the video following is for practice purposes and that they can reach out to me and text me if there are any doubts on how to proceed with the study. Additionally, I recorded a video with notes for the participants. Firstly, I explained that the stimuli were generated six years ago and as they draw heavily on current affairs at that time, it might be irritating to be confronted with these very specific, but outdated topics. Secondly, I encouraged them to make notes on a piece of paper or their phone. Thirdly, I explained that they can pause the video, but not go back and watch it a second time. My person of contact reported back to me that it felt strange to her to record herself, but not seeing herself while doing so. That is why I presented different options from doing the task with a laptop and recording on a second one or on the phone to minimizing the PPT to record the answer.

Lastly, I emphasized that they can reach out to me, if the task is not clear or if they feel insecure about how to proceed.
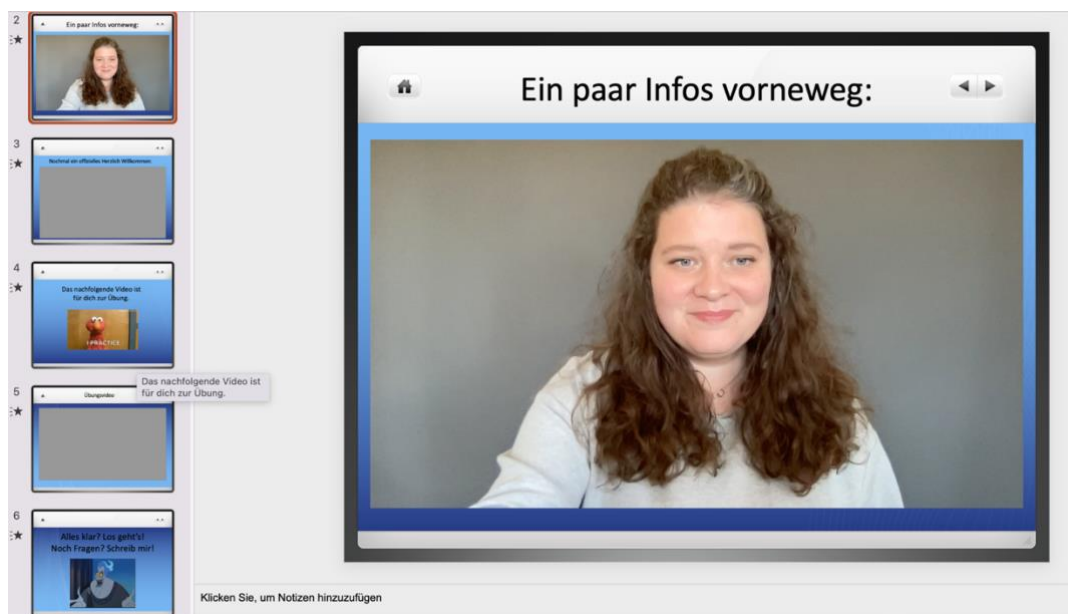
Fig. 23: Powerpoint presentation sent to the informants participating remotely

Pertaining to the questionnaire, I changed the second question from asking about the biological gender (in German: Geschlecht) to asking about the gender identity (in German: gender Identität). Secondly, I added a sentence in the introduction: "If you do not feel comfortable with answering one of the following questions, please skip it." Having adapted the material, I sent the Powerpoint presentation, the form of consent (see Appendix III) as well as a translation into DGS, a document with explanations (see

Appendix VIII) that I translated into DGS as well, and the questionnaire (see Appendix VII) to the participants via WeTransfer. One participant asked me to facetime to clarify some points. Another participant had technical issues and sent me several recordings that were only a few seconds long. Consequently, I had to exclude this participant from the study. All in all, I received a total of 10 videos from the participants sent to me via WeTransfer that I included in the data analysis.

After having focused on the two parts of data generation in 2017 and 2023, I will now move on to describe the analysis of the data.

3.4.3 Data Analysis

Moving now on the analysis of the data, I want to start with the metadata on the sampling group. With a number of only 20 participants, the answers from the participants on the questionnaire were copied into an excel file for the purpose of a better overview. I have shared the demographic data of the sampling group in the previous section and turn now to the analysis of the video recordings.

Again, I used an excel file to work with the data I had generated. As can be seen in fig. 24 the stimuli are listed horizontally with a line to check off if the participants chose "version A", "version B" and "both / neither". The letter "Z" indicates which version is the one that applied MSSs. Below these three lines I listed each MSS separately to check them off if the participant mentioned them. I want to emphasize, however, that the MSS would be considered as mentioned only if the participant referred to it in a very explicit manner, i.e. by reproducing the sign or the signed phrase. If, for example, the signer expressed that they liked the depicting of the children starving in Kenya and reproduced the classifiers that were used in the stimuli (CL-CHEEKBONES, CL-RIBS), I would check off that MSS as being mentioned by the participant. If, however, the signer expresses that they prefer version A as it is signed in a more visual way, I would note that on a different coding sheet. The answers that the participants gave on the first question (Which version do you prefer? Or none? Or both?) are simple yes-/no answers that can be simply marked in that kind of coding sheet. The clear mentioning of one of the MSS was coded in that sheet as well.

	A	KB202301	KB202302	KB202303	KB202304	KB202305
1		KB202301	KB202302	KB202303	KB202304	KB202305
2	STIMULI					
3						
4						
5	4Kenia Hungernot					
6	A (Z)	x	x	x	x	x
7	B					
8	beides / weder noch					
9						
10	hungern (AV)		x	x	x	
11	Dürre (EB)	x	x	x	x	x
12	Tod vieler Somalier (RK)					
13	humanitäre Hilfe (EB)	x	x	x		x
14	KOMMENTAR	KENIA nicht verstanden				
15						
16	1 Terroranschlag Nizza					
17	A					
18	B (Z)	x	x	x	x	x
19	beides / weder noch					
20						
21	viele Menschen kamen ums Leben (RK)	x	x			
22	fuhr in die Massen (EB)	x	x	x	x	x

Fig. 24: Coding sheet MSS

A different type of coding sheet was used to record the points the participants made when replying to the second question (which contributes to answering RQ2): Why did you choose that version? As this is an open-ended question, the answers could not be applied to a simple yes-/no- schema (as well as both/neither). That is why I noted the statements on a piece of paper and basically kept a tally chart on their responses. In a second step, I created a mind-map with Google Jamboard by clustering the comments and identified themes that emerged from the data.

In this section, I have described how I analyzed the two different kinds of data in a qualitative way by using a coding sheet in Excel and a tally chart that evolved into a mind-map representing the themes that emerged respectively.

4 Results

In this chapter, I will present the principal findings of the data generated for this study. The first section refers to the first question the participants responded to (What version do you prefer?) and contributes to answering RQ1: *Is the version including the modality specific strategies proposed in this work (version_{MSS}) perceived as more natural, more idiomatic and/or more intelligible than the version that does not include any modality specific strategy (MSS) by deaf informants?* What follows in the next section is a presentation of the findings pertaining to RQ2: *How do deaf informants describe the*

version that includes modality specific strategies (version$_{MSS}$) and the version that does not respectively? This data was elicited by the second question posed to the participants, an open-ended question: Why do you prefer the version that you chose?

4.1 Results research question 1

A first overview on the findings on RQ1 are illustrated in figure 25 which shows a clear trend towards choosing the version that applied MSSs in comparison to the distractors. What is striking is that the total of 20 participants chose the version$_{MSS}$ for stimuli *2 Nizza* as well as *5 Deutsche Bank*. With stimuli 6 *Charlemagne-Prize* 18 participants preferred the version$_{MSS}$, while two participants answered with both versions being acceptable. The same number of participants (18) decided to choose version$_{MSS}$ for stimuli *7 Bundeswehr.* However, the remaining two participants felt that neither version A nor B was clear. Stimuli *8 EU & Turkey* and stimuli *1 Kenya* follow with 16 participants and 15 participants choosing version$_{MSS}$ respectively. While three participants stated that they did not like either version of stimuli 8, the same number of participants declared that they perceive both versions as acceptable DGS texts for stimuli 1. Stimuli *10 Election France*, stimuli *9 US & Turkey* and stimuli *3 NATO* can be located in the range of 14-13 participants expressing their preference for version$_{MSS}$. These three stimuli have in common that three participants disapproved of both versions. Lastly, stimuli *4 Olympic Games* is the one with the least affirmative votes for version$_{MSS}$. With only 12 participants choosing version$_{MSS}$, 6 participants choosing the distractor instead and 2 participants stating that they would not accept version A not B, this stimulus stands out. Apparently, the version$_{MSS}$ was not as clear to the participants as anticipated.
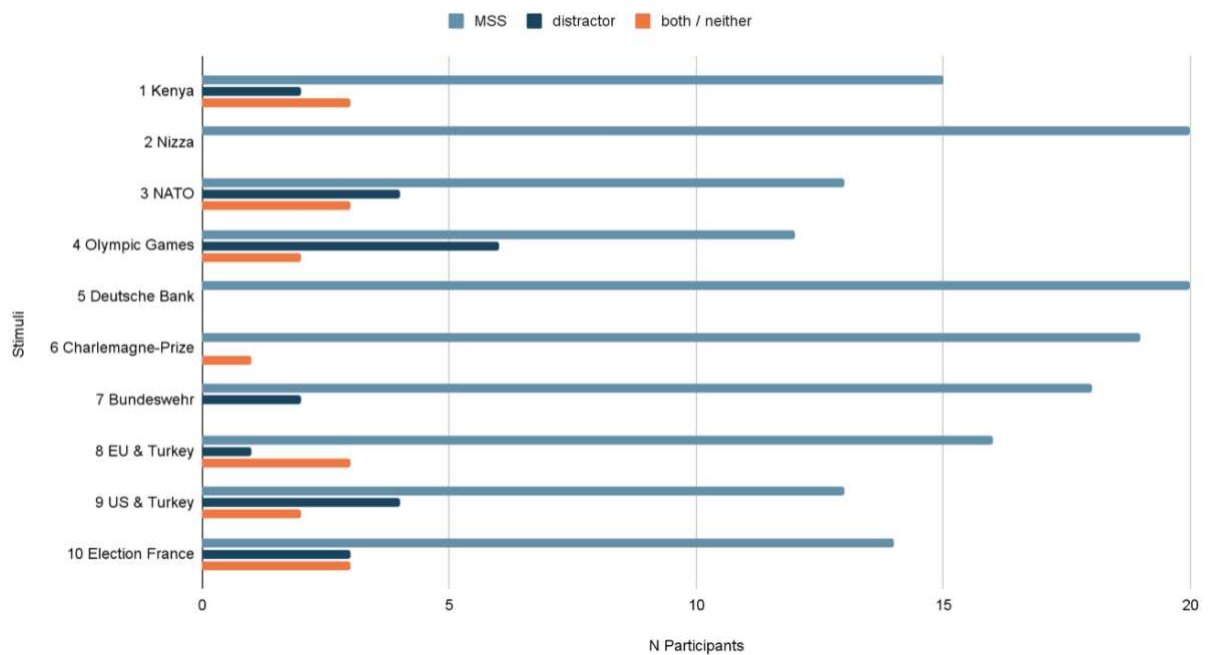
Fig. 25: Preference as indicated by the participants

With this next figure that depicts the instances that each MSS was mentioned by the participants, two pieces of information on the data analysis and data generation have to be kept in mind. Firstly, as mentioned in section 4.3, instances of MSSs mentioned were only coded when the participant referred to the MSS in question in a direct and clear manner. That was the case when participants reproduced the sign(s) that was shown in the version$_{MSS}$. Secondly, this bar chart does not reflect the number of instances MSSs were mentioned in relation to their total number across all ten stimuli. Figure 22 in chapter 3 shows the distribution of MSSs across all stimuli with CA/CD being the most prominent with almost a third. Second is *Coherence in Reference* (CR) that comes close to the aforementioned MSS with 27%. *Explicit Description* (ED) and *Visual Elaboration* (VE) with 19% and 15% respectively follow. *Context-Specific Adaptations* CSA) are last with 8%. *Coherence in Reference* and *Visual Elaboration* are pointed out 40 times and 36 times respectively. The MSS *Context-Specific Adaptation* is mentioned the least by the participants of this study (N=18). However, when comparing instances in the stimuli (8%) with the instances of mentions by participants (24%), it can clearly be seen that distribution patterns are different. The use of CL-MEDAL as well as CL-BAND in Stimuli 6 *Charlemagne-Prize* has contributed to that effect with 11 participants commenting on that specific use of MSS.
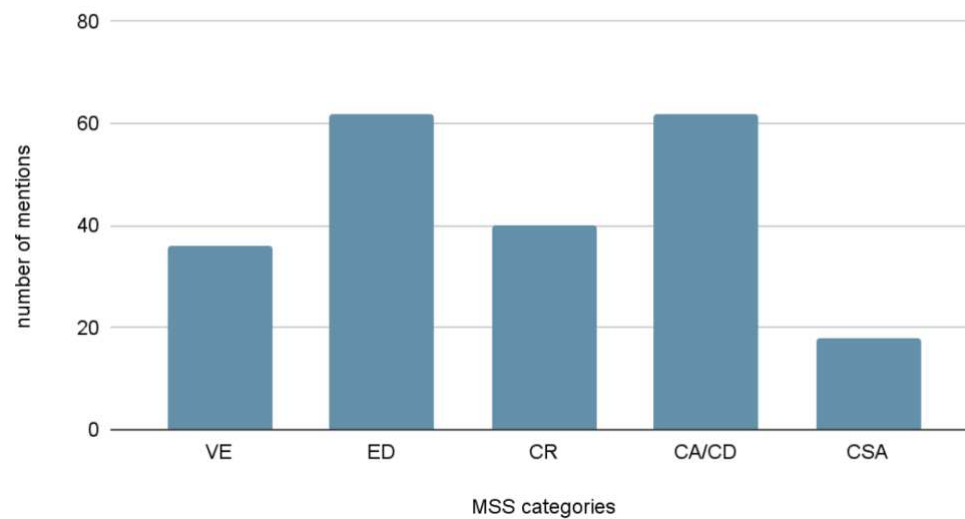
Fig. 26: Mentions of MSS by participants

The table that I would like to elaborate on next is displaying the ten most mentioned MSS (table 13). It is interesting to note that the first five phrases in written German (here translated into English) are realized by using classifiers, a linguistic feature that manipulates the manuals to depict a whole entity (CL-FLAG), a limb-entity (drive through crowd, thus CL-FALL++) or the size and shape of an entity, also known as SASS (CL-MEDAL, CL-BAND as well as CL-BAND-HOLD>MOV:ASH). In this table, CA/CD is listed further down with 7 comments (moment of silence) and 6 mentions (false reports and friendly hug) respectively. That illustrates nicely the point I made before on figure 22: Although there is the same number of total instances of CA/CD across the stimuli as instances of ED, but significantly less of CSA, it is striking that examples of those MSS are noted and commented on by many participants.

Top 10 mentioned MSS by participants

ED	drove through crowd	14
CSA	Charlemagne-Price	11
RC	Ash has been awarded	8
RC	EU&UK flag and Ash's heart	8
VE	national mourning	7
CA	moment of silence	7
ED	Bundeswehr mirrors society	7
CD	targeted false reports	6
RC	award has been presented	6
CA	friendly hug	6

Table 13: Ten most mentioned MSS

Lastly in this section, I want to give an overview of examples_MSS that were not commented on (see Table 14). The category of CSA that functions as contextualizer (see chapter 3.4) was commented on by no participant (NATO for "military alliance", GERMANY GOVERNMENT for "Berlin", ERDOGAN for "Turkish government"). In seven cases, CR was not pointed out at all. Two of those instances of CR refer to the DGS sign AUSTAUSCH (see fig.27) which means, negotiating, discussing, debating, having a conversation.

Fig. 27: DGS sign AUSTAUSCH++

Two applications of ED and three instances of CA/CD have not been pointed out by participants.

MSS	ST	Version$_{MSS}$	Stimuli
CSA	Berlin	/GERMANY/ GOVERNMENT	10
CR	Macron	INDxMACRON	10
CR	took up negotiations	NEGOTIATE>MOV:M-M	10
CR	support each other	SUPPORT>MOV:M-M	10
CR	meeting Trump and Erdogan	CL–PERSON>MOV:CENTER - CL–PERSON>MOV:CENTER	9
CR	have conversation	CONVERSATION>MOV:T-E	9
CSA	Turkish government	ERDOGAN	9
CR	both stepped in front of the press	CL–PERSON>MOV:CENTER - CL–PERSON>MOV:CENTER	9
ED	PhD	RESEARCH++ WRITE++	6
CD	assure to truly want change	CD > TRUE-CHANGE++	5
CA	overshadow	CA$_{PAR}$ > MOTIVATION JOY GOOD++ DISAPPOINTMENT	4
CD	praise	CD Bach praises Olympic Games	4
CSA	the military alliance	NATO	2
CR	against IS	INDxIS DEFENSE	2
ED	signal to externals	/EU/ /NATO/ JOIN STRONG WE SHOW YOU SUPPORT SOLIDARITY	2

Table 14: Overview on examples $_{MSS}$ mentioned by no participant (N=0)

4.2 Results research question 2

After having presented the results that pertain to the RQ1, I will now move on to describe the findings that were elicited by asking the participants why they preferred the version they chose over the other one. As this is an open-ended question which yielded a broad range of replies, contentwise as well as linguistically, I will offer a mind-map to illustrate the results. By clustering the statements of the participants eight themes emerged: (i) authenticity, (ii) information content, (iii) visual-gestural modality, (iv) entertainment factor, (v) structure, (vi) language processing, (vii) linguistic features and lastly (viii) register. As can be seen in figure 28, the themes are weighted differently. The theme *visual-gestural modality* is the one that the participants referred to most often (215 utterances), followed by *language processing* with 173 utterances and thirdly *linguistic features* with 165 mentions. After that *information content* (120 utterances) is followed by entertainment factor (81), authenticity (57), register (34) and lastly structure (30).
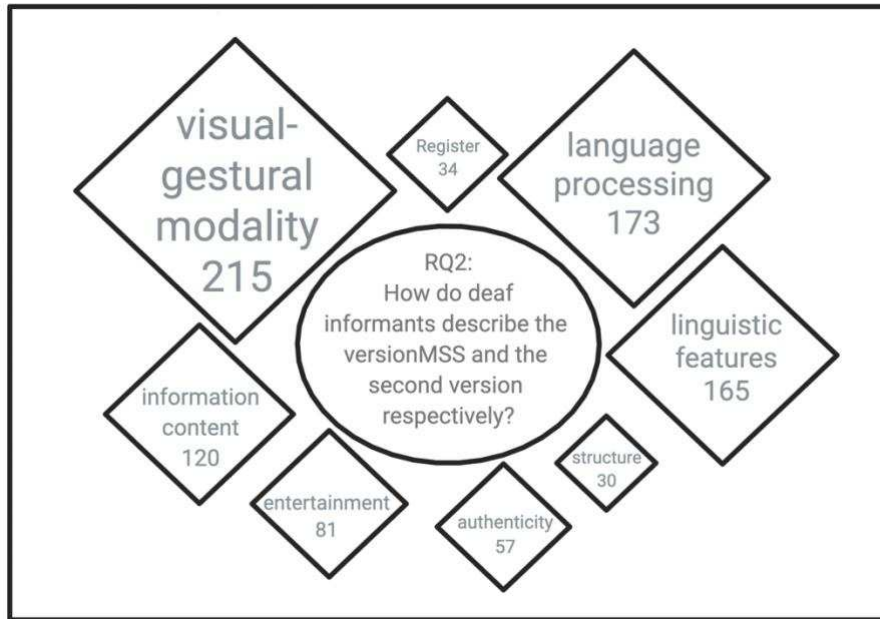
Fig.28: Mind-map findings RQ2

The usage of the visual-gestural modality and its opportunities is highlighted by the participants rating the version_MSS and the version that does not apply any MSS. Table 15 shows an overview on the points the participants made when responding to the question why they prefer the version that they chose and why they have dismissed the other version. The table suggests that the participants perceive the use of "images" contrastive to signing in a way that is linear, is restricted to a lexical level and resembles LBG (Lautsprachbegleitendes Gebärden, SEE is the equivalent in English). Visual signing, signing in 3D and using iconicity are perceived as positive features of the version_MSS.

Participant KB202304 states: "This is just sentence after sentence, there is no context. This feels similar to how most interpreters sign." And later on they continue: "The signer has understood the content and is very competent in DGS. The other version feels like someone is reading from a text. I can see that in the first version, the signer follows the schema of perceiving, interpreting the content, processing, and producing."

Participant KB202302 adds to that by explaining: "It is impossible for me to construct a mental image. In fact I am actively hindered from doing so, as there is just not enough information."

N=215	utterance	
78	(more / clear(er) / show) image can (better) imagine realistic depiction of the situation	little image
74	word-word-word not	like signed from text close to German typical spoken language more like hearing German words like LBG / pure LBG just given the word more style spoke language close to text German sequential 1-1 signing linear similar to how interpreters sign word-word-word much mouthing
34	more visual, 3D, gesture	not (enough) visual / gesture
16	elaborate more / iconicity	no iconicity
13	show (clear)	not show clearly

Table 15: Overview on comments related to the visual-gestural modality

Language processing is the theme that follows with the second most comments. The participants of the study made 173 comments that relate to understanding the DGS text, processing the information delivered in DGS and the challenges they met when watching the video that does not use MSS. They describe their experience with being confused, not understanding, not being able to concentrate and describe that processing is hard and that they would have to ask for clarification if this was a real-life situation. Participant KB202302 notes that they would not have understood the second video if they had not watched the version$_{MSS}$ before. Another participant (KB202304) illustrates their processing in the following: "The first version is more word-word-word. That means that I have to translate that version in my brain a second time. When I imagine an interpreter signing like that and I would try to understand, I'd have to process the information twice." And they go on explaining how that second processing feels: "Firstly, from the spoken language interpreted into a language that is just not as visual. That means that I have to translate that version into 'my language' for it to match my needs. And only then I can start processing and understanding until finally, I can store that information." A third participant (KB202306) links the theme of visual-gestural modality

to their language processing: "I have to work more to understand that version. With the other video I just got handed over an image and that was that - understood." Participant KB202308 describes a similar experience and even stopped the video explaining: "I felt how I shut off. There's no facial expression, no gesture. I can understand the individual signs, but in order to process, I have to see more gestures and facial expressions." However, it seems not only to be the processing that is challenged but as well as memorizing information as participant KB202310 observes: "I can feel that I've been taken on a journey. The other video was just facts - I've forgotten them already." Participant KB202304 reports that "when the signer uses more images, I can memorize the content better. That is interesting."

N=173	utterance	
	understand clear (key) message clear understand what mean exactly can memorize better less work for my brain pleasant reception	processing hard cannot concentrate confusing do not understand without the second video (MSS) I would not get it not clear would have to ask message not clear hard to follow

Table 16: Overview on comments related to language processing

The theme that emerged with the third most comments with 165 utterances relates to linguistic features such as CA/CD, facial expressions, use of space, classifiers, idiomatic signs as well as mouthing. Participant KB202302 refers to use of space as well as classifiers: "The signer signs that the person is awarded a prize. But how does that prize look? Is it a trophy, a certificate, a flower or…". After having watched the next stimuli, they make a simple, yet clear statement: "When you have the signing space there, you should really use it!" Another comment made by KB202304 refers to two instances of MSS in stimuli *1 Kenya* specifically: "For example drought and hunger, the way that this is signed feels like DGS for me".

N=165	utterance	
49	CA / role shift / show upper body shift / bei in the person	no / too little CA
49	(more) facial expression	no / too little facial expression
43	locating use of space spatial	no / too little locating
11	chain of causation emphasis by repetition	redundancy in reference
7	classifier handle classifier whole entity classifier	
5	special / idiomatic signs	
1	mouth gesture	

Table 17: Overview on comments related to linguistic features

The next theme that emerged when analyzing the data concerns information and how much or little information is transported and made accessible in a signed text. Apart from noticing that they can access more information in versionsMSS, the participants observe that there are more examples given, the signer goes more into detail, is more accurate and provides more context. Participant KB201724 explains: "'He is now an Oxford professor.' That's all, that's just not enough information." Interestingly enough, the same participant reflects on their own opinion and adds: "Of course, I know what a professor does. Regardless, video B is more clear: researching, working, teaching. Hm. Does one really need that information? I'm not sure if it is really necessary."

A different kind of information, that is the meta-linguistic kind, is reviewed positively by several participants. Participant KB202307 describes how the versionMSS of stimulus *1 Kenya* and *5 Deutsche Bank* impacts them on an emotional level: "By seeing the emotional state of the people, I understand the gravity of the situation better. That impacts me and my perception. I want to help, donate, or do something." Their comment after watching the latter stimulus is similar in that way: "That sticks. It leaves me with the impression that it is actually a critical topic, something that I have to share. The importance and urgency is depicted very clearly. The other version is too objective." Participant KB202302 explains the effect it has on them in more detail, incorporating another aspect: "The depiction of the cheekbones and the ribs show clearly how bad the

situation really is. Otherwise, I would draw on my own experience and maybe imagine the hunger to be on a similar scale as the feeling of hunger I know."

N=120	utterance	
61	important / more information get more information more (hidden) information gives background knowledge better when you don't have background knowledge	less information omission short content not there you won't get it without background knowledge
46	more example more detail more in depth more description more accurate more context	not as accurate description not there content empty
10	shows more serious	does not show emotions
2	tight efficient	
1	sign nonsense	

Table 18: Overview on comments related to content of information

The fifth theme that emerged from the data is the factor of entertainment (see table 19). The versions$_{MSS}$ are described as being more spicy, being more exciting to watch, and more lively. By seeing more emotions on the signer's face and body, participants feel that they are easily fascinated by the text. One participant (KB201723) explains this experience by comparing it to being sucked into a movie. The versions with no MSS on the other hand are perceived as too lengthy, monotonous, boring and dry. Two participants refer to these versions as making them uncomfortable and bothering them. Participant KB202302 mentions an overuse of reference: "When the signer repeats things all the time, it gets boring. I got it, this person is on the right side of the signing space and the other person on the left. You don't have to repeat the proper nouns over and over again."

N=81	utterance	
35	more spice exciting lively fascinating interesting like being sucked into a movie prosody	dry can look away too lengthy boring makes me uncomfortable no chance I'll be fascinated slow monotonous
30	(more) smooth	staccato not smooth
10	show more emotion	doesn't concern me leaves me cold
6	soft fine	cool bothers me

Table 19: Overview on comments related to the entertainment factor

Table 20 gives an overview on points made by participants pertaining to an authentic signing style. Terms and phrases such as natural, typical DGS, more expression were used to describe authenticity in DGS signers. Other participants thought about their own way of signing or how they would sign with their friends. Participant KB202304 observes: "This video is more clear. It looks like the person is signing himself and not interpreting the news." Another participant (KB201716) paid attention to the grammar and whether the signer followed grammatical rules in his DGS text. They concluded that he did, indeed, but it seemed unnatural all the same to them. Pertaining to the aspect of cultural adaptation, participant KB202310 notes: "I was thrown off by the word 'moment of silence'. Only after having watched the second video, I understood the concept. By signing CA_{par} > HEAD-LOWER the signer depicts a lot more emotion. Plus, "moment of silence", well silence belongs more to the hearing world. In this example, I can see how one would be calm, not signing with other people - that is more adapted to my language." One participant (KB201712) described the versions without MSS as looking like a hard-of-hearing person has signed them and since that "is a whole other world", the participant did not classify it as being typical for a DGS text. Another participant (KB202308) thinks of a similar comparison and ascribes the signed text without MSSs to deaf children who have hearing parents. In the section on language processing I have quoted a participant who was reminded of interpreters' signing style when watching a version of a stimulus without any MSS.

N=57	utterance	
	this is how I sign in my everyday life typical how I sign with friends more style like deaf, very direct authentic typical DGS chat natural pure DGS more expression cultural adaptation	I would not sign like this this style not like DGS proper DGS no not typical DGS simple like hard of hearing, it's a different world like deaf child with hearing parents strong follow grammar

Table 20: Overview on comments related to authenticity

Since the stimuli featured topics from news broadcasting, many participants commented on themes and used terms that hint towards register. Some participants felt that although the version_Mss was good to understand and pleasant to watch, they described these versions as being signed like a narrative, being exaggerated and flippant. Two participants (KB202308 and KB201712) suggested that this version was more fit to be performed on a theater stage. Two participants felt like the signer did not only state facts, but might express his own opinion in stimuli *9 USA & Turkey* and *5 Deutsche Bank* respectively. However, there were other instances when participants felt like the version without MSS was too formal, resembled a report or a newspaper article or was signed in a way that they perceived as being too reserved or neutral. Participant KB202306 identified a target group that would possibly benefit from the use of MSS: "I noticed that the video is signed in a way that can be described with "plain DGS", comparable to "plain German" or "plain language" in general. People who do not have background knowledge on this subject, would probably have access to the information in that video, as it is more visual. I can imagine that by signing this way, one could provide access to these target groups."

N=34	utterance	
16	signs larger "plain DGS" (leichte DGS)	children won't understand formal news calm this style typical media signing scientific objective
18	**negative associations:** like a story exaggerated flippant for signing on stage, like theater signer adds own opinion	**negative associations:** too formal structure similar newspaper article report facts reserved neutral

Table 21: Overview on comments related to register

The last theme that was identified in the data with the least mentions (N=30) is structure. The versions$_{MSS}$ were perceived as having a clear structure, a coherent timeline and provided context. On the contrary, versions that did not apply MSS were described as having no context clues, no pauses, no clear structure and were perceived as stringing sentences together in an incoherent way.

N=30	utterance	
	timeline thread clear structure story clear structure context is clear	no thread sudden change of topic no context clues sentence - sentence- sentence no pauses structure not clear

Table 22: Overview on comments related to structure

In this chapter, I have described the findings that answer the two research questions that I have formulated in chapter 3:

RQ1 asks if the version including the modality specific strategies proposed in this work (version$_{MSS}$) was perceived as more natural, more idiomatic and/or more intelligible than the version that does not include any modality specific strategy (MSS) by deaf informants. The data generated for this study suggests that participants who took part

in this acceptability judgment task preferred the version_{MSS} over the distractor version. In 80% of the cases the participants chose the version_{MSS}, in 13% of the cases they preferred the distractor version and in 7% of the cases they either chose both versions or neither.

RQ2 asked how deaf informants describe the version that includes modality specific strategies (version_{MSS}) and the version that does not respectively? In this section, I have described the eight themes that emerged from the data (i) visual-gestural modality, (ii) language processing, (iii) linguistic features, (iv) content of information, (v) factor of entertainment, (vi) authenticity, (vii) register and (viii) structure. In Table 15 to 22 I have presented the terms and phrases that the participants in this study used to describe version_{MSS} as well as the version without MSSs. In addition, I have provided quotes from individual participants illustrating trends emerging from the data.

In the next section, the paper will move on to discuss these findings, debate implications and reflect on limitations.

5.Discussion

Having presented the results of this study, this paper now moves on to discuss theoretical and practical implications, indicate possible directions for future research and to describe limitations to the study. With this qualitative study I want to contribute to the field of SLA of L2/M2 learners. Research in this area is scarce (Schönström & Marshall) which impacts teachers and students alike. Instructors have to trust their intuition (Biber & Conrad, 2011; Cresdee & Johnston, 2014; Fries & Geißler, 2012) and use their anecdotal knowledge in teaching as there is too little empirical evidence on SLA in L2/M2 learners that could inform them on how to structure their seminars. Studies suggest that it is indeed the visual-gestural modality that challenges teachers and students both. They report from teachers and students alike struggling with teaching and learning how to "think in the respective SL" (McKee & McKee, 1992; Schornstein, 2005; Kemp, 1998). As teachers are not provided with didactic tools that enable them to teach "how to think in pictures" (McKee & McKee, 1992) in a systematic way, students can feel that their explicit knowledge on linguistic features of SLs are "fuzzy" as well as "imprecise and inaccurate" (Ellis, 2009,

p.12). This in turn can lead to frustration of students (von Randow, 2016a) not being able to grasp that *something* that makes the difference in their signing and deaf people signing. I suggest that the Modality Specific Strategies (MSS) that have been introduced in this thesis can be used as a didactic tool that allows teachers and instructors to pinpoint linguistic features in DGS resulting from its underlying iconic structure and to show students how to apply them systematically in their own DGS signing.

RQ1 asked if the version including the MSS proposed in this work (version$_{MSS}$) was perceived as more natural, more idiomatic and/or more intelligible than the distractor version. The results of this study show a clear preference expressed by the participants towards the version$_{MSS}$ (in 80% of the cases). RQ2 asked how deaf informants describe version$_{MSS}$ and the distractor version respectively. The eight themes that emerged from analyzing the data pertaining to this second research question illustrate priorities, preferences and needs the participants expressed: the consideration of modality specific features and related linguistic properties of DGS to ensure an understanding of and accessibility to the text while at the same time respecting the factor of entertainment.

The results (see fig.25) pertaining to RQ1 suggest that the participants of the study preferred the versions that included MSS over the versions that did not. It is interesting to hypothesize on the reason why some stimuli resulted in a very clear response, such as stimuli *2 Nizza* and stimuli *5 Deutsche Bank*. In the case of stimuli 2 it could be the relatively short stimuli (version A and B 1:07 minutes) that made the MSSs applied in the stimuli stand out more. Stimuli *1 Kenya* (0:46 minutes) is even shorter in length, its topic is not very complex and it does not feature a lot of entities. That could be the reason why two participants decided to vote for the distractor version and three participants stated that both versions are acceptable in their eyes. With *stimuli 6 Charlemagne Prize* it is possible that the MSS applied in the version$_{MSS}$ were so eye-catching that 18 participants preferred that version and two participants accepted both versions. Many participants (N=11) referred to the MSS *Context-Specific Adaptation* that depicted what the award looks like in a positive way. Stimuli *4 Olympic Games* is the longest stimuli (version A and B 2:28 minutes) and had the lowest rate of acceptability amongst the participants. Although it cannot be confirmed that there is a correlation between those two variables, it suggests that shorter stimuli could be appreciated by the participants.

The other stimuli range between 13 and 18 participants opting for version$_{MSS}$ which might represent individual preferences.

When looking at how often each MSS was mentioned by participants, it is interesting to note that CA/CD and ED are detected most often. It can be suspected that instances of CA/CDs stand out and can be spotted and thus referred to easily. Another possibility is that participants are familiar with the concept of CA/CD and thus mention this specific linguistic feature as often as they did. The MSS *Explicit Description* is commented on 62 times, as often as CA/CD was mentioned. Although ED is 22% less prevalent in the stimuli than CA/CD, the participants referred to this MSSs as often as they reported on the latter. A possible interpretation of this result is that the EDs applied in the stimuli had an essential role in making the DGS text accessible in its functions of making implicit meaning explicit and illustrating words and phrases that are heavily influenced by the ST in the distractor version (humanitarian aid, medal table, public life stood still).

Out of the total of 74 MSS applied in the stimuli, 15 instances were not referred to by any participant, which makes 20%. The category of CSA that functions as contextualizer (see chapter 3.4) was commented on by no participant (NATO for "military alliance", GERMANY GOVERNMENT for "Berlin", ERDOGAN for "Turkish government"). It seems that this strategy has either not been noticed or not deemed important enough to comment on by the participants. It is intriguing to note, however, that some participants used the sign ERDOGAN or spelled the name when referring to the stimuli. Ultimately, CSA in its function as contextualizer does not seem to play a vital role in the perception of the participants. In seven cases, CR was not pointed out at all. The examples listed in the table below might just not be as obvious as other examples in the same category that were referred to by more participants (e.g. the Charlemagne-Prize or the commissioning of two expert reports). Two instances of CR refer to the DGS sign AUSTAUSCH which means, negotiating, discussing, debating, having a conversation. Although the sign can be manipulated to agree with the number of referents (i.e. two people having a conversation as opposed to a group having a discussion), the manipulation of the sign in question (see fig. 27 for illustration) might not be pronounced enough.

The two cases of ED that have not been pointed out by participants might not play such an essential role in processing and understanding. The concept of working on a PhD

might be familiar and does not need an additional explicit description. The concept of sending signals to be viewed as being together in solidarity, supporting each other, was not commented on by participants either. Considering the MSS CA/CD, two of the realizations might be too lengthy for participants to notice. The third instance of CD "Deutsche Bank assured that they truly wanted to change their mode of communication" was not signed in a clear manner and it seems to feel unnatural for the sign model. One participant commented that the repetition of the sign CHANGE seems to be out of place.

The results pertaining to RQ2 show that the participants emphasize linguistic features that result from the visual-gestural modality of SLs. The participants seem to see these features in stark contrast to written and spoken language using interpreters, hard of hearing persons and deaf children of hearing parents as prototypes who sign in a way that does not comply with the visual-gestural modality inherent to SLs. Some participants are linking the use of these iconic properties to an easier processing of the language and the absence of those features with a straining processing. The third theme that was identified in the data was the participants referring to linguistic features of SLs themselves. The concept of CA/CD (N=49), the use of facial expressions (N=49) and the use of space (N=43) are the three concepts participants refer to most often. The data suggests that the participants have a high meta-linguistic competence and are able to pinpoint and analyze the use of linguistic features. The fourth theme that emerged from the data refers to the content of information. One participant commented in a positive way on the explicit description of what a professor does (researching, working, lecturing). A second later, one can see that they pause and think, wondering why it is that they deemed this information important. The inner monologue that the participant shares with us points towards an important question: is a description of *what* a professor does, information that is needed to understand the utterance or does the way *how* it is signed ensure accessibility to the information in the stimulus? The entertainment factor seems to be of relevance as well, although the data suggests that the participants prioritize understanding over a pleasant experience. Pertaining to the theme of authenticity, the data suggests that (i) merely following grammatical rules of DGS is not enough for authentic signing, (ii) concepts in the ST have to be unpacked before being rendered into DGS and that (iii) interpreted texts do not look authentic in general. Data

referring to the theme register suggests a dilemma that signers face: signing in a way that considers the visual-gestural modality of SLs, as one would do when chatting with friends or signing in a way that meets the register of news broadcasting. Two participants referred to that dilemma in a direct manner, questioning the validity of the information. The last theme with the leasts mentions (N=30) refers to the structure of the text. The data from this study indicates that using MSSs creates cohesion on discourse level and thus supports Cuxac's (1999, 2000) notion of iconicity being the underlying principle of SLs.

To be able to confirm the tendencies the data has shown, another study with more participants who represent the heterogeneity and diversity of deaf communities in Germany to a greater extent is needed. Although the sample group of this study represents a good balance when it comes to gender identity (male N=8, female N=7, non-binary N=4), it is biased in regards to age and language biography. The age group that is most represented is 20 to 30 years old (55% of participants). Pertaining to the aspect of language biography, 70% of the participants indicated that they were exposed to DGS from age 0, meaning that they have grown up with at least one deaf parent. The overall percentage of deaf children having exposure and access to a SL from birth is much lower as Mitchell and Karchmer (2004) have revealed for the US stating that "less than five percent of deaf and hard of hearing students receiving special education are known to have at least one deaf parent".

The results of this study have major implications on the training of SLIs as they are expected to know about deaf signers' preferences, priorities and needs and meet them in their interpretations. My own experience in applying the Modality Specific Strategies when teaching SLI students has shown great promise. However, this anecdotal experience has to be underpinned by empirical research that focuses on the students testing if the proposed strategies really do promote modality specific interpretation and translation into DGS. Secondly, it is important to learn more about the practical application of the MSS to see how teachers and instructors respond to this didactic tool. This study has focused on DGS, but has implied in some instances that the MSS might be applicable as well for L2/M2 learners of other SLs and maybe even for interpreters working with International Sign (IS). After all, the MSSs are based on Cuxac's notion (1999, 2000) that iconicity is the underlying structure of all SLs. As mentioned in section

3.3.1.3, IS has to exploit iconicity and spatial manipulation to the extreme (see Rosenstock, 2008) and thus interpreters are trying to use all the strategies and devices on hand to depict and illustrate lexemes that might not be understandable to some members of the audience.

6.Conclusion

This chapter will conclude the study by summarizing key findings in relation to the research questions, and discussing how this study can contribute to academic discourse as well as to practical aspects of teaching SLI. Moreover, it will review limitations of this study and identify need as well as potential for further research.

This thesis wants to contribute to the field of SLA pertaining to SLs by devising strategies that consider the visual-gestural modality of SLs and thus promoting modality specific interpretation and translation into DGS with L2/M2 learners. This qualitative study aimed at answering two research questions inquiring if signed texts in DGS applying MSSs were perceived as more natural, more idiomatic and / or more intelligible than a version without MSS. The second research question went a step further by asking how these two versions of the same ST are described by deaf signers. The data has first of all shown a clear tendency with participants favoring the version with MSSs in 80% of the cases. Furthermore, it has identified priorities, preferences and needs the participants expressed: the consideration of modality specific features and related linguistic properties of DGS to ensure an understanding of and accessibility to the text while at the same time respecting the factor of entertainment. Since research in the field of SLA pertaining to SLs is scarce (Schönström & Marshall, 2022), there are only few studies that have empirically discussed the role that the visual-gestural modality and iconicity play for L2/M2 learners. I have argued throughout this thesis that the visual-gestural modality and iconicity as the underlying principle of SLs should be considered when discussing SLA of SLs. While biases in the sample group limit the generalizability of the results, this study suggests indeed that deaf signers prefer DGS texts that apply MSSs over the second version that does not utilize iconic structures in the same way.

Further research has to focus on L2/M2 learners testing if the suggested didactic tool will indeed promote modality specific translation and interpretation. This should happen in close collaboration with deaf scholars and teachers and could result in the development of didactic material. This could include the story about a conference of dragons held in Iceland operationalizing "more spice", "more pictures" or "explain more" and making the concept of CA/CD and the other four MSSs enjoyable and comprehensible to L2/M2 learners like me.

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Appendix I

Trial exercise stimuli DGS and English Voiceover Manchester

Trial exercise stimuli German Manchester

Die Ermittlungen zum Anschlag in Manchester, wo ein junger **Mann Selbstmord begangen hat (KK),** laufen noch. Der Geheimdienst MI5 hat wegen **eventuell ignorierten Hinweisen (CA)** bereits interne Ermittlungen eingeleitet und diese auch veröffentlich. Das ist ungewöhnlich und hat wohl mit dem **Wahlkampf zu tun. Politiker diskutieren hitzig und stellen das Land (KK) als unsicher dar (CD) (EB).**

Trial exercise stimuli Glosses DGS in German Manchester/ modality specific version

MANCHESTER INDx BOMBE ERMITTLUNG PROZESS. MANN JUNG GEWESEN **SELBSTMORD BOMBE**. GEHEIMDIENST MI5 INTERN ERMITTLUNG GRUND BOMBE VORHER SCHON HINWEIS>direction.towards.MI5 PERSON BOMBE ZUSAMMENHANG. *CA$_{par}$ > IGNORIEREN-ABWIEGELN*. ERMITTLUNG SO PRESSE VERBREITEN VERÖFFENTLICHEN++ VERBREITEN UNGEWÖHNLICH. GEDANKE ZUSAMMENHANG WAHLKAMPF. POLITIK-MENSCH++ HEIß DISKUSSION *CD > GROßBRITTANIEN-BILD-SICHER*? KLAR WUNSCH WAHLKAMPF SELBST-DARSTELLEN.

Trial exercise stimuli Glosses DGS in German Manchester/ second version without strategies

MANCHESTER BOMBE ERMITTLUNG PROZESS. INDx MANN JUNG GEWESEN SELBSTMORD. GEHEIMDIENST MI5 INTERN ERMITTLUNG GRUND BOMBE VORHER SCHON HINWEIS>direction.towards.MI5 PERSON BOMBE ZUSAMMENHANG IGNORIEREN. ERMITTLUNG SO PRESSE VERÖFFENTLICHEN++ VERBREITEN UNGEWÖHNLICH.

GEDANKE ZUSAMMENHANG WAHLKAMPF INDx. POLITIK-MENSCH++ HEIß DISKUSSION: LAND BILD SICHER? PALMUP_{neg}.

Trial exercise stimuli English Manchester

The investigation into the attack in Manchester, where a young man committed **suicide (CSA)**, is still ongoing. The secret service MI5 has already initiated internal investigations because of possibly **ignored clues (CA)** and has also published them. This is unusual and probably has to do with the **election campaign. Politicians discuss heatedly and portray the country (CSA) as unsafe (CD) (ED)**.

Trial exercise stimuli Glosses DGS in English Manchester / modality specific version

MANCHESTER INDx BOMB INVESTIGATION PROCESS. MAN YOUNG FINISH SUICIDE **BOMB**. SECRET SERVICE MI5 INTERNAL INVESTIGATION REASON BOMB PREVIOUSLY NOTICE_{>direction.towards.MI5} PERSON BOMB INCIDENT. *CApar > IGNORING-WAVE-OFF*. INVESTIGATION LIKE-THAT PRESS DISSEMINATE PUBLISH++ DISSEMINATE UNUSUAL. THOUGHT-COMES-TO-MIND CONTEXT ELECTION CAMPAIGN. POLITICS-PEOPLE++ HOT DISCUSSION *CD > BRITAIN-PICTURE-SAFE*? **OBVIOUS WANT ELECTION CAMPAIGN PERFORMANCE**.

Trial exercise stimuli Glosses DGS in English Manchester / second version without strategies

MANCHESTER BOMB INVESTIGATION PROCESS. INDx MAN YOUNG SUICIDE. SECRET SERVICE MI5 INTERNAL INVESTIGATION REASON BOMB PREVIOUSLY NOTE_{>direction.towards.MI5} PERSON BOMB INCIDENT IGNORE. INVESTIGATION LIKE-THAT PRESS PUBLISH++ DISSEMINATE UNUSUAL. THOUGHT-COMES-TO-MIND CONTEXT ELECTION CAMPAIGN. INDx. POLITICS-PEOPLE++ HOT DISCUSSION: COUNTRY PICTURE SAFE? PALMUPneg.

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1. Stimuli DGS and English Voiceover Kenya

1. Stimuli German Kenya

In Kenia müssen die Menschen seit mehreren Monaten **hungern (AV)**. Eine **Dürre (EB)** plagt das Land und hat zum **Tod vieler Kenianer*innen (RK)**, darunter auch viele Kinder, geführt. Die Vereinten Nationen (UN) haben sich nun eingeschaltet und bieten **humanitäre Hilfe (EB)** an.

1. Stimuli Glosses DGS in German Kenya / modality specific version

KENIA PAAR MONAT++ FRÜHER-BIS-HEUTE MENSCH++ WAHNSINN SCHLIMM HUNGER **CL-DEPICT-WANGENKNOCHEN CL-DEPICT-RIPPEN**. **LAND REGEN KEIN SONNE**HEIß **PFLANZE-WACHSEN PFLANZE-VERDORREN**. **VIEL MENSCH++ STERBEN++** ÜBERWIEGEND KINDER. ORGANISATION /UN/ AKTIV **HUMANITÄR HILFE ANGEBOT ESSEN TRINKEN MEDIKAMENTE LIEFERN++ VERTEILEN.**

1. Stimuli Glosses DGS in German Kenya / second version without strategies

KENIA PAAR MONAT++ FRÜHER-BIS-HEUTE MENSCH++ WAHNSINN SCHLIMM HUNGER. LAND TROCKEN DESHALB VIEL MENSCH++ STERBEN ÜBERWIEGEND KINDER. ORGANISATION /UN/ AKTIV ANGEBOT HUMANITÄR HILFE ANGEBOT.

1. Stimuli English Kenya

In Kenia, people have been **starving (VE)** for several months. A drought (ED) is plaguing the country and has **led to the death of many Kenyans (CR)**, including many children. The United Nations (UN) has now stepped in to offer **humanitarian aid (ED)**.

1. Stimuli Glosses DGS in English Kenya / modality specific version

KENYA FEW MONTH++ EARLIER-TO-TODAY HUMAN++ IMMENSE BAD HUNGER **CL-DEPICT-CHEEKBONES CL-DEPICT-RIBS**. **COUNTRY RAIN NO SUN**HOT **PLANT-GROWTH PLANT-WITHER**. **MANY HUMAN++ DIE++** MOSTLY CHILDREN. ORGANIZATION /UN/ ACTIVE **HUMANITARIAN AID OFFER EAT DRINK MEDICINE DELIVER++ DISTRIBUTE**.

1. Stimuli Glosses DGS in English Kenya / second version without strategies

KENYA FEW MONTH++ EARLIER-TO-TODAY HUMAN++ IMMENSE BAD HUNGER. COUNTRY DRY THEREFORE MANY HUMAN++ DIE PREDOMINANTLY CHILDREN. ORGANIZATION /UN/ ACTIVE OFFER HUMANITARIAN AID OFFER.

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2. Stimuli DGS and English Voiceover Nizza

2. Stimuli German Nizza

Bei einem Anschlag in Nizza kamen letztes Jahr **viele Menschen ums Leben (RK)**. Die Feier an der Strandpromenade zum nationalen Feiertag Frankreichs wurde zum Ziel eines Attentäters, der mit einem **LKW durch die Massen fuhr (EB)**. In Frankreich wurde **Staatstrauer verhängt (AV)** und auch in Deutschland hat Bundeskanzlerin Merkel einen Tag nach dem Anschlag eine öffentliche **Schweigeminute (CA/CD)** abgehalten. Der Attentäter hat insgesamt 86 Menschen **ermordet (KK)**.

2. Stimuli Glosses DGS in German Nizza / modality specific version

LETZTES JAHR N-I-Z-Z-A VIEL **MENSCH++ STERBEN++**. FRANKREICH VIEL MENSCH++ NATIONAL FEIERTAG FEIER CL-MENSCHENMENGE. PLÖTZLICH MANN LKW CL-FAHRZEUG-FAHREN>MENSCHENMENGE **CL-FALLEN++**. FRANKREICH STAATSTRAUER **CL-FLAGGE-AUF-HALBMAST**. DEUTSCHLAND BUNDESKANZLER /MERKEL/ ÖFFENTLICH SCHWEIGEMINUTE DENKEN *CA_{PAR} > KOPF-SENKEN*. ANGRIFF-PERSON INSGESAMT SECHSUNDACHTZIG MENSCH++ **LKW CL-FAHRZEUG-FAHREN>MENSCHENMENGE CL-FALLEN++ STERBEN++**.

2. Stimuli Glosses DGS in German Nizza / second version without strategies

LETZTES JAHR N-I-Z-Z-A VIEL MENSCH++ STERBEN. FRANKREICH NATIONAL FEIERTAG VIEL MENSCH++ FEIER CL-MENSCHENMENGE. PLÖTZLICH MANN LKW CL-FAHRZEUG-FAHREN>MENSCHENMENGE. FRANKREICH STAATSTRAUER. DEUTSCHLAND BUNDESKANZLER /MERKEL/ ÖFFENTLICH SCHWEIGEMINUTE DENKEN. ANGRIFF-PERSON INSGESAMT SECHSUNDACHTZIG MENSCH++ MORD_{MG:BAM}.

2. Stimuli English Nizza

In an attack in Nice last year **many people were killed (CR)**. The celebration on the seafront for France's national holiday became the target of an assassin who **drove a truck through the crowds (EB)**. France declared **national mourning (VE)** and Chancellor Merkel also held a **public moment of silence (CA/CD)** in Germany the day after the attack. The assassin **murdered (CSA)** a total of 86 people.

2. Stimuli Glosses DGS in English Nizza / modality specific version

LAST YEAR N-I-Z-Z-A MANY **PEOPLE++ DIE++**. FRANCE MANY PEOPLE++ NATIONAL HOLIDAY CELEBRATION CL-CROWD. SUDDENLY MAN TRUCK **CL-VEHICLE-DRIVING>PEOPLE-CROWD CL-FALLING++**. FRANCE NATIONAL MOURNING **CL-FLAG-AT-HALF-MAST**. GERMANY CHANCELLOR /MERKEL/ PUBLIC MOMENT-OF-SILENCE THINK *CA_{PAR} > HEAD-LOWERING*. ATTACK-PERSON TOTAL EIGHTY-SIX PEOPLE++ **TRUCK CL-VEHICLE-DRIVING>PEOPLE-CROWD CL-FALL++ DIE++**.

2. Stimuli Glosses DGS in English Nizza / second version without strategies

LAST YEAR N-I-Z-Z-A MANY PEOPLE++ DIE. FRANCE NATIONAL HOLIDAY MANY PEOPLE++ CELEBRATION CL-CROWD. SUDDENLY MAN TRUCK-CL VEHICLE

DRIVING>CROWD. FRANCE NATIONAL MOURNING. GERMANY CHANCELLOR /MERKEL/ PUBLIC MOMENT-OF-SILENCE THINK. ATTACK-PERSON TOTAL EIGHTY-SIX PEOPLE++ MORD_{MG:BAM}.

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3. Stimuli DGS and English Voiceover NATO

3. Stimuli German NATO

Beim Nato-Gipfel in Brüssel **erinnert** Trump in seiner Rede an ein Abkommen von 2014, in dem alle **Staaten zugesichert hatten, ihre Ausgaben für die Verteidigung zu erhöhen (RK)**. **Trump gibt sich provokant, jedoch ohne Erfolg (EB)**. Das **Militärbündnis (KK)** hat sich an diesem Tag für den Kampf gegen den IS entschieden. **Dies und der Beitritt der EU sind ein starkes Zeichen nach außen (EB)**. Am nächsten Tag **kritisierte (CA)** Schulz den US-Präsidenten im Rahmen des evangelischen Kirchentags als **Autokraten (CA), der die angeblich befreundeten Staatschefs demütigend behandelt hat (CD)**.

3. Stimuli Glosses DGS in German NATO / modality specific version

/NATO/ GIPFEL /BRÜSSEL/ CL-MENSCH++/CL-MENCH++>BEWEGEN.AUFEINANDER.ZU. /TRUMP/ **BESCHEID++** ERINNERUNG ABKOMMEN VOR-KURZEM 2014 **STAAT-CHEF++** GELD **AUSGEBEN++** VERTEIDIGUNG **BUDGET++**. **/TRUMP/ CL-PERSON>MOV.NACH.VORN VORTRAG WORT++ PROVOKATION KLAR WORT++. CL-2BEINE++ INDX_{IHR} GESICHT-UNBEWEGLICH KALT AUSSTRAHLUNG.** SELBE TAG /NATO/ ENTSCHEIDUNG ZUSTIMMUNG /IS/ GEGEN. **/EU/ /NATO/ BEITRETEN STARK WIR ZEIGEN_{IHNEN} UNTERSTÜTZEN SOLIDARITÄT** VERTEIDIGEN>LOCI.GEGEN.IS. NÄCHSTE EVANGLISCH KIRCHE-TAG PERSON /SCHOLZ/ USA PRÄSIDENT /TRUMP/ PERSON **CD > KRITIK:**

PERSON>LOCI.TRUMP AUSSTRAHLUNG *CA > EGOISMUS REGELN AN-SICH-REIßEN*. STAAT-CHEF INDxSIE VERBÜNDETNEG, DEMÜTIGEN++.

3. Stimuli Glosses DGS in German NATO / second version without strategies

/NATO/ GIPFEL /BRÜSSEL/ TREFFEN TRUMP BESCHEID++ ERINNERUNG FRÜHER ABMACHUNG 2014 ABKOMMEN STAAT-CHEF INDxSIE MUSS MEHR GELD AUSGEBEN VERTEIDIGUNG-BUDGET. /TRUMP/ VORTRAG WORT++ PROVOKATION WAHNSINN KLAR WORT++. INDxsie GESICHT KALT. SELBE TAG MILITÄR-BÜNDNIS ENTSCHEIDUNG ABKOMMEN /IS/ GEGEN. SO /EU/ /NATO/ BEITRITT STARK WIR ZEIGEN>MOV.IHNEN SO. EVANGELISCH KIRCHE-TAG /SCHOLZ/ USA PRÄSIDENT /TRUMP/-PERSON KRITIK. INDxTRUMp ALLEIN REGELN STAAT-CHEF FREUNDE DEMÜTIGEN.

3. Stimuli English NATO

At the NATO summit in Brussels, Trump **recalls** in his speech a 2014 agreement in which all **states had pledged to increase their defense spending (CR)**. **Trump makes provocative statements, but to no avail (ED)**. The **military alliance (CSA)** decided that day to fight IS. **This and the EU joining are a strong sign to the outside world (ED)**. The next day, Schulz **criticized (CD)** the U.S. president as an **autocrat (CA)** in the context of the Protestant church congress, **who has humiliated the supposedly friendly heads of state (CD)**.

3. Stimuli Glosses DGS in English NATO / modality specific version

/NATO/ SUMMIT /BRUSSELS/ CL-MEN++/CL-MENCH++>MOVE.TOWARDS.EACH.OTHER. /TRUMP/ **REMIND++** REMEMBER AGREEMENT BEFORE-SHORTLY 2014 **HEAD-OF-STATE++ SPEND-MONEY++ DEFENSE-BUDGET++**. /TRUMP/ CL-PERSON>MOV.FORWARD **SPEECH WORD++ PROVOCATION CLEAR WORD++. CL-2LEGS++ INDxYOUR FACE IMMEDIATELY COLD-VIBES.** SAME DAY /NATO/ DECISION CONSENT /IS/ AGAINST. **/EU/ /NATO/ JOIN STRONG WE SHOW YOU SUPPORT SOLIDARITY** DEFEND>LOCI.AGAINST.IS. NEXT-DAY EVANGLISH CHURCH-DAY PERSON-/SCHOLZ/ USA PRESIDENT-/TRUMP/ PERSON **CD > CRITICISM: PERSON**>LOCI.TRUMP **ALONE-RULE MONOPOLIZE** *CA > EGOISM RULES ONE-SELF*. **HEAD-OF-STATE INDxTHEY ALLYNEG, HUMILIATEE++**.

3. Stimuli Glosses DGS in English / second version without strategies

/NATO/ SUMMIT /BRUSSELS/ MEET TRUMP REMIND++ REMEMBER AGREEMENT BEFORE-SHORTLY 2014 AGREEMENT HEAD-OF-STATE INDxTHEY MUST SPEND MORE MONEY DEFENSE BUDGET. TRUMP LECTURE WORD++ PROVOCATION WOW CLEAR WORD++. INDxTHEY FACE COLD. SAME DAY MILITARY ALLIANCE DECISION AGREEMENT /IS/ AGAINST. SO /EU/ /NATO/ JOIN STRONG WE SHOW>MOV.THEM SO. EVANGELICAL CHURCH-DAY /SCHOLZ/ USA PRESIDENT-/TRUMP/ PERSON CRITICISM. INDxTRUMP ALONE RULES HEAD-OF-STATES FRIENDS HUMILIATE++.

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4. Stimuli DGS and English Voiceover Olympic Games

4. Stimuli German Olympic Games

Letztes Jahr im Sommer wurden die Olympischen Spiele in Rio de Janeiro abgehalten. Während der Eröffnungsfeier **stand das öffentliche Leben so gut wie still (EB)** und alles konzentrierte sich auf die Spiele. Die deutsche Mannschaft hat **17 Mal Gold geholt (RK)** und stand auf dem **Medaillenspiegel (EB)** auf dem fünften Platz. **Überschattet (EB / CA)** wurden die Olympischen Spiele durch einige Doping-Skandale, auch wenn sich Russland angesichts der Kritik **sichtlich unbeeindruckt zeigte (CA/CD)**. Auch die brasilianische Mannschaft **zögerte Dopingtests hinaus (CA)** und ließ ihre Athleten in den letzten drei Wochen vor den Spielen nicht testen. Trotzdem **lobte (CD)** IOC-Präsident Bach **die Spiele zum Abschluss (AV) als realitätsnah in einer Stadt mit vielen Problemen**.

4. Stimuli Glosses DGS in German Olympic Games / modality specific version

LETZT-JAHR SOMMER OLYMPISCH-SPIELE /RIO/ INDx ERÖFFNUNGSFEIER **ÖFFENTLICH-LEBEN STILL, U-BAHN CL-FAHRZEUG>MOV.STOP VERLASSEN, GESCHÄT++ GESCHLOSSEN++, MENSCH++ CL-MENSCHENMENGE>MOV.LINKS FASZINATION**.

MANNSCHAFT DEUTSCHLAND MEDAILLE GEWINNEN **SIEBZEHN MAL GEWINNEN++**. **INSGESAMT MEDAILLE**MB:GOLD**, MEDAILLE**MB:SILBER**-SILBER, MEDAILLE**MB:BRONZE **PLUS INSGESAMT LAND++ VERGLEICH++ DEUTCHLAND LISTE-FÜNFTE. OLYMPISCH-SPIELE** *CA*PAR *> MOTIVATION FREUDE GUT++ ENTTÄUSCHUNG*. **SKANDAL DOPING**. VIEL MENSCH++ RUSSLAND-AUF KRITIK++. *CA > INTERESSE-KEIN, BEINE-HOCHLEGEN, VON-SICH-WEISEN.* MANNSCHAFT BRASILIEN TEST DOPING TEST++ *CA > LANGSAM++* VERSCHIEBEN++, NACH-HINTEN-ZIEHEN++. SPIELE 3-WOCHEN-VOR MANNSCHAFT TEST++ KEIN, NULL. TROTZDEM /IOC/-PRÄSIDENT CHEF-PERSON /BACH/ SPIELE VORBEI POSITIV INFORMATION: CD > OLYMPISCH-SPIELE ABLAUF SCHÖN FARBE ZUKLEISTERN NEIN. BRASILIEN SO, RIO REALITÄT BILD SO VIEL PROBLEM++ BUOY-LIST.

4. Stimuli Glosses DGS in German Olympic Games / second version without strategies

LETZT-JAHR SOMMER OLYMPISCH-SPIELE /RIO/ INDx ERÖFFNUNGSFEIER LEBEN CL-MENSCHENMENGE STILL. CL-MENSCHENMENGE>MOV.LINKS FASZINATION. MANNSCHAFT DEUTSCHLAND GOLD GEWINNEN SIEBZEHN GEWINNEN++. INSGESAMT DEUTSCHLAND LISTE++ FÜNFTE. OLYMPISCH-SPIELE AUCH SKANDAL DOPING. VIEL KRITIK RUSSLAND-AUF. INDxRUSSLAND INTERESSE-KEIN. MANNSCHAFT BRASILIEN TEST DOPING TEST++ VERSCHIEBEN++. OLYMPISCH 3-WOCHEN-VOR MANNSCHAFT TEST KEIN, NULL. TROTZDEM /IOC/-PRÄSIDENT /BACH/-PERSON OLYMPISCH VORBEI POSITIV INFORMATION. OLYMPISCH-SPIELE ABLAUF SO REALITÄT. /RIO/ PROBLEM++ DA LIST-BUOY.

4. Stimuli English Olympic Games

Last summer, the Olympic Games were held in Rio de Janeiro. During the opening ceremony, **public life pretty much stood still (ED)** and everything was focused on the Games. The German team **won 17 gold medals (CR)** and **was on the fifth place on the medal table (ED)**. The Olympic Games were **overshadowed (EB / CA)** by a number of doping scandals, although Russia was **visibly unimpressed in the face of criticism (CA/CD)**. The Brazilian team also **delayed doping tests (CA)** and did not have its athletes tested in the last three weeks before the Games. Nevertheless, IOC President Bach **praised (CD)** the **Games at the end as being close to reality in a city with many problems (VE)**.

4. Stimuli Glosses DGS in English Olympic Games / modality specific version

LAST-YEAR SUMMER OLYMPIC GAMES /RIO/ INDx OPENING PARTY **PUBLIC LIFE STILL, SUBWAY CL-VEHICLE>MOV.STOP LEAVE, SHOPS++ CLOSED++, PEOPLE++ CL-PEOPLE - CROWD>MOV.LEFT FASCINATION**. TEAM GERMANY **MEDAL WIN SEVENTEEN-TIMES WIN++**. **TOTAL MEDALM:GOLD, MEDALM:SILVER-SILVER, MEDALEM:bronze PLUS TOTAL COUNTRY++ COMPARISON++ GERMANY LIST-FIFTH. OLYMPIC GAMES *CAPAR > MOTIVATION JOY GOOD++ DISAPPOINTMENT***. SCANDAL DOPING. MANY PEOPLE++ RUSSIA-ON CRITICISM++. *CA > INTEREST-NO, LEGS-UP, WAVE-OFF*. TEAM BRAZIL TEST DOPING TEST++ *CA > DELAY++, STALL++*. GAMES 3-WEEKS-BEFORE TEAM TEST++ NONE, ZERO. NEVERTHELESS /IOC/ PRESIDENT HEAD-PERSON /BACH/ GAMES OVER POSITIVE INFORMATION: **CD > OLYMPIC GAMES PROGRESS *BEAUTIFUL COLOR PASTE UP* NO. BRAZIL THIS-WAY, RIO REALITY PICTURE THIS-WAY MANY PROBLEM++ BUOY LIST.**

4. Stimuli Glosses DGS in English Olympic Games / second version without strategies

LAST-YEAR SUMMER OLYMPIC GAMES /RIO/ INDx OPENING PARTY LIFE CL-CROWD STILL. CL-CROWD>MOV.LEFT FASCINATION. TEAM GERMANY GOLD WIN SEVENTEEN WIN++. TOTAL GERMANY LIST++ FIFTH. OLYMPIC GAMES ALSO SCANDAL DOPING. MUCH CRITICISM RUSSIA-ON. INDxRUSSIA INTEREST-NO. TEAM BRAZIL TEST DOPING TEST++ POSTPONE++. OLYMPICS 3-WEEKS-BEFORE TEAM TEST NONE, ZERO. NEVERTHELESS /IOC/ PRESIDENT /BACH/-PERSON OLYMPIC OVER POSITIVE INFORMATION. OLYMPIC GAMES PROCEDURE THIS-WAY REALITY. /RIO/ PROBLEM++ HAVE LIST-BUOY.

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5. Stimuli DGS and English Voiceover Deutsche Bank

5. Stimuli German Deutsche Bank

Nach den Skandalen der letzten Jahre **kündigte die Deutsche Bank nun nachdrücklich einen Kulturwechsel an (CD)**. Die Deutsche Bank hatte zu spät über firmeninterne Unruhen informiert, **sodass Investoren weiterhin (EB) Aktien kauften und investierten (CA)**. Nach Bekanntwerden dieses Versäumnises hatte die Deutsche Bank zunächst behauptet, dass dies **gezielte Falschmeldungen (CD)** seien, die dem **Ruf des Unternehmens schaden sollten (AV)**. **Die Beauftragung von Gutachtern resultierte in zwei verschiedenen Gutachten(RK)**, die keine Klarheit schaffen konnten. Nun soll ein Neuanfang gewagt werden, bei dem das Unternehmen beteuert, dass es nun eine **transparentere Kommunikation (AV)** verfolge.

5. Stimuli Glosses DGS in German Deutsche Bank / modality specific version

JAHR++ VERGANGENHEIT BIS-HEUTE /DEUTSCHE BANK/ VIEL SKANDAL SCHIEF PASSIEREN++. JETZT /DEUTSCHE BANK/ INFORMATION ZIEL KULTUR-WECHSEL *CD > WAHR WECHSEL++*. **INDx INFORMATION SKANDAL-SCHIEF SPÄT VERBREITEN. LEUTE GELD** *CA > CL-GELDSCHEINSTAPEL-ANLEGEN++* **AKTIEN-BÖRSE ABSTURZ**. PRESSE VERBREITEN *CD > SCHIEF /DEUTSCHE BANK/ RAUSREDEN*. *CD_{DEUTSCHE.BANK} > ANSCHULDIGUNG NEIN, EINFLUSS_{>MOV:PRESSE.AUF.DB} ZIEL BILD-SCHIEF*. **GUTACHTEN PERSON_{>LOCI:RE} PERSON_{>LOCI:LI}, AUFTRAG_{>LOCI:RE} AUFTRAG_{>LOCI:LI}, PROZESS_{>LOCI:RE} PROZESS_{>LOCI:LI} ERGEBNIS INHALT_{>LOCI:RE} INHALT_{>LOCI:LI}, ANDERS_{>LOCI:RE} ANDERS_{>LOCI:LI} WIDERSPRUCH UNKLAR PERSPEKTIVE_{>LOCI:RE} PERSPEKTVIE_{>LOCI:LI}**. JETZT /DEUTSCHE BANK/ WUNSCH NEU-START. ZUKUNFT MEHR ZIEL KOMMUNIKATION KLAR, TRANSAPRENZ. **TEPPICH-KEHREN-UNTER** NEIN.

5. Stimuli Glosses DGS in German Deutsche Bank / second version without strategies

JAHR++ VERGANGENHEIT BIS-HEUTE /DEUTSCHE BANK/ VIEL SKANDAL SCHIEF PASSIEREN++. JETZT /DEUTSCHE BANK/ INFORMATION ZIEL KULTUR-WECHSEL WÜNSCHT, WIRKLICH ÄNDERUNG. INDx_{INFO} SKANDAL SPÄT VERBREITEN. LEUTE GELD CL-GELDSCHEINSTAPEL-ANLEGEN++. PRESSE VERÖFFENTLICHUNG VERBREITEN INDx_{SKANDAL} KATASTROPHE /DEUTSCHE BANK/ NEUTRAL. INDx_{PRESSE} ZIEL WIR RUF SCHLECHT. GUTACHTEN PERSON>LOCI.RE PERSON>LOCI.LI AUFTRAG PROZESS ERGEBNIS INHALT WIDERSPRUCH. JETZT /DEUTSCHE BANK/ NEU-START PROZESS ZUKUNFT ZIEL KOMMUNIKATION MEHR TRANSPARENZ.

5. Stimuli English Deutsche Bank

After the scandals of the last few years, Deutsche Bank now **emphatically announced a culture change (CD)**. **Deutsche Bank had informed too late about internal company turmoil (ED)**, so that **investors continued to buy shares and invest (CA)**. After this shortfall became known, Deutsche Bank had initially **claimed that these were deliberate false reports (CD)** intended to **damage the company's reputation (VE)**. **The commissioning of experts resulted in two different expert reports (CR)**, which were unable to provide any clarity. Now a new start is to be made, with the company claiming that it is now pursuing **more transparent communication (AV)**.

5. Stimuli Glosses DGS in English Deutsche Bank / modality specific version

YEAR++ PAST-TO-TODAY /DEUTSCHE BANK/ MANY SCANDAL GO-WRONG++. NOW /DEUTSCHE BANK/ INFORMATION AIM CULTURE-CHANGE *CD > TRUE CHANGE++*. **INDx_{INFORMATION} SCANDAL GO-WRONG TOO-LATE MAKE-PUBLIC**. **PEOPLE MONEY** *CA >* *CL-BANKNOTE-INVEST++* **STOCK MARKET CRASH**. PRESS SPREAD *CD > GO-WRONG* */DEUTSCHE BANK/ MAKE-EXCUSE*. *CD_{DEUTSCHE.BANK} > ACCUSATION NO, INFLUENCE>MOV:PRESS.ON.DB* **AIM** *PICTURE-CROOKED*. **EXPERT OPINION PERSON**>LOCI:RE **PERSON**>LOCI:LI, **ASSIGN**>LOCI:RE **ASSIGN**>LOCI:LI, **PROCESS**>LOCI:RE **PROCESS**>LOCI:LI **RESULT CONTENT**>LOCI:RE **CONTENT**>LOCI:LI, **DIFFERENT**>LOCI:RE **DIFFERENT**>LOCI:LI **CONTRADICTION UNCLEAR PERSPEKTIVE**>LOCI:RE **PERSPEKTVIE**>LOCI:LI. NOW /DEUTSCHE BANK/ WISH NEW START. FUTURE MORE AIM COMMUNICATION CLEAR, TRANSPARENCY. **CARPET-SWEEP-UNDER NO**.

5. Stimuli Glosses DGS in English Deutsche Bank / second version without strategies

YEAR++ PAST-TO-PRESENT /DEUTSCHE BANK/ MANY SCANDAL GO WRONG++. NOW /DEUTSCHE BANK/ INFORMATION AIM CULTURE-CHANGE WANT, REALLY CHANGE. INDxINFO SCANDAL TOO-LATE PUBLICATION. PEOPLE MONEY CL-BANKNOTE-INVEST++. PRESS PUBLICATION DISSEMINATE INDxSCANDAL CATASTROPHE /DEUTSCHE BANK/ NEUTRAL. INDxPRESS AIM WE REPUTATION BAD. EXPERT OPINION PERSON>LOCI.RE PERSON>LOCI.LI ORDER PROCESS RESULT CONTENT CONTRADICTION. NOW /DEUTSCHE BANK/ RESTART PROCESS FUTURE GOAL COMMUNICATION MORE TRANSPARENCY.

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6. Stimuli DGS and English Voiceover Charlemagne-Prize

6. Stimuli German Charlemagne-Prize

Der britische Historiker Garton Ash hat in Aachen den **Karlspreis (KK) verliehen bekommen (RK)**. Die **Auszeichnung (RK)** wird seit 1950 für Verdienste um die Verständigung und Zusammenarbeit in Europa **verliehen (RK)**. Am Rathaus in Aachen wehte sowohl die **britische als auch die europäische Flagge. Wie auch das Herz des Preisträgers schlägt – für seine Heimat Großbritannien und für Europa (RK)**. Der **heutige Oxford-Professor (EB)** ist in den 80er Jahren nach Berlin gereist und hat für seine **Doktorarbeit (EB) hinter den eisernen Vorhang geblickt (CA)**.

6. Stimuli Glosses DGS in German Charlemagne-Prize / modality specific version

/G-A-R-T-O-N/ /A-S-H/ SELBST PERSON SELBST /GROẞBRITANNIEN/ GEBOREN, AUFWACHSEN PROZESS, GESCHICHTE-PERSON>MB:HISTORIKER FORSCHUNG. VOR-KURZEM /AACHEN/ INDx **K-A-R-L-S-PREIS CL-BAND, CL-MEDAILLE CL-VERLEIHEN>LOCI:AG**. 1950 VON-DA-AN REGELMÄẞIG **CL-MEDAILLE CL-VERLEIHEN++>LOCI:IHNEN**. INDxSIE AKTIV /EUROPA/ LAND++ VERSTÄNDIGUNG++, ZUSAMMENARBEIT, SOLIDARITÄT. /AACHEN/

RAT-HAUS **CL-FASSADE ZWEI FAHNE, CL-FLAGGE**>LOCI:RE **CL-FLAGGE**>LOCI:LI**,** */EUROPA/* */GROßBRITANNIEN/* **L-FLAGGE**>LOCI:RE **CL-FLAGGE**>LOCI:LI**. CL-SPIEGEL-AUF>LOCI:RE&LI** */A-S-H/* **CL-PUT-IN-HEART**>LOCI:RE **CL-PUT-IN-HEART**>LOCI:LI **CL-HERZSCHLAG VERBINDUNG**. HEUTE PERSON INDx **UNIVERSITÄT O-X-F-O-R-D ANGESTELLT, UNTERRICHT++, FORSCHUNG, VORTRAG**. DAMALS 80ER **DOKTOR-ARBEIT FORSCHUNG, SCHREIBEN**. INDx */BERLIN/* REISEN CL-MAUER *CA > RÜBERSCHAUEN DDR WAS-BEDEUTET*.

6. Stimuli Glosses DGS in German Charlemagne-Prize / second version without strategies

GROßBRITANNIEN PERSON /G-A-R-T-O-N/ /A-S-H/ INDx SELBST GESCHICHTE-PERSON>MB:HISTORIKER. VOR-KURZEM /AACHEN/ INDx K-A-R-L-S-PREIS BEKOMMEN>MOV.ZU.GA. 1950 AB-DA-AN REGELMÄßIG K-A-R-L-S-PREIS VERGEBEN INDxSIE AKTIV EUROPA LAND++ VERSTÄNDIGUNG++, ZUSAMMENARBEIT, SOLIDARITÄT. /AACHEN/ INDx RAT-HAUS INDx ZWEI FAHNE, /EUROPA/-FAHNE, /GROßBRITANNIEN/-FAHNE CL-FLAGGE>LOCI:RE CL-FLAGGE>LOCI:LI. ZWEI CL-FLAGGE>LOCI:RE CL-FLAGGE>LOCI:LI /A-S-H/ POSS3 LIEBE /EUROPA/ /GROßBRITANNIEN/. HEUTE PERSON /O-X-F-O-R-D/ PROFESSOR. INDxGA DAMALS 80ER JAHRE POSS3 DOKTOR-ARBEIT /BERLIN/ REISEN, /WEST-BERLIN/ INDx /DDR/ FORSCHUNG.

6. Stimuli English Charlemagne-Prize

The British historian Garton Ash has **been awarded (CR)** the **Charlemagne Prize (CSA)** in Aachen. The **award has been presented (CR)** since 1950 for services to understanding and cooperation in Europe. **Both the British and European flags flew at Aachen City Hall. Just as the heart of the laureate beats - for his homeland Great Britain and for Europe (CR)**. The current **Oxford professor (ED)** traveled to Berlin in the 1980s and **looked behind the Iron Curtain (CA)** for **his doctoral thesis (EB)**.

6. Stimuli Glosses DGS in English Charlemagne-Prize / modality specific version

/G-A-R-T-O-N/ /A-S-H/ SELF PERSON /GREAT BRITAIN/ BORN, GROW UP PROCESS, HISTORY-PERSON>M:HISTORIAN RESEARCH. NOT-LONG-AGO /AACHEN/ INDx **C-H-A-R-L-E-M-A-G-N-E-PRICE CL-BAND, CL-MEDAL CL-AWARD**>LOCI:AG. 1950 ONWARDS REGULARY **CL-MEDAL CL-BAND++**>loci:THEY. INDxSIE ACTIVE /EUROPA/ COUNTRY++

UNDERSTANDING++, COOPERATION, SOLIDARITY. /AACHEN/ COUNCIL-HOUSE **CL-FASSADE TWO-FLAGS, CL-FLAG**>LOCI:RE **CL-FLAG**>LOCI:LI**, /EUROPE/ /GREAT BRITAIN/ CL-FLAG**>LOCI:RE **CL-FLAG**>LOCI:LI**. CL-PUT-IN-HEART**>LOCI:RE&LI **/A-S-H/ CL-PUT-IN-HEART**>LOCI:RE **CL-PUT-IN-HEART**>LOCI:LI **CL-HEARTBEAT LINK**. TODAY PERSON INDx UNIVERSITY /O-X-F-O-R-D/ **EMPLOYED, TEACHING++, RESEARCH, LECTURE**. THEN 80S **DOCTORAL THESIS RESEARCH, WRITING**. INDx /BERLIN/ TRAVEL CL-MAUER *CA > LOOK-OVER GDR MEAN-WHAT*.

6. Stimuli Glosses DGS in English Charlemagne-Prize / second version without strategies

GREAT BRITAIN PERSON /G-A-R-T-O-N/ /A-S-H/ INDx SELF HISTORY-PERSON>M:HISTORIAN. NOT-LONG-AGO /AACHEN/ INDx C-H-A-R-L-EM-A-G-N-E-PRICE RECEIVE>MOV.TO.GA. 1950 ONWARDS REGULARY C-H-A-R-L-EM-A-G-N-E-PRICE AWARD INDxTHEY ACTIVE /EUROPE/ COUNTRY++ UNDERSTANDING++, COOPERATION, SOLIDARITY. /AACHEN/ INDx COUNCIL-HAUS INDx TWO FLAG, /EUROPE/ FLAG, /GREAT BRITAIN/ FLAG CL-FLAG>LOCI:RE CL-FLAG>LOCI:LI. TWO CL-FLAG>LOCI:RE CL-FLAG>LOCI:LI /A-S-H/ POSS3 LOVE /EUROPE/ /GREAT BRITAIN/. TODAY PERSON /O-X-F-O-R-D/ PROFESSOR. INDxGA THEN 80S POSS3 DOCTORAL THESIS /BERLIN/ TRAVEL, /WEST BERLIN/ INDx /GDR/ RESEARCH.

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7. Stimuli DGS and English Voiceover Bundeswehr

7. Stimuli German Bundeswehr

Ende April wurde der Bundeswehrsoldat Franco A. festgenommen, da er unter Verdacht

steht Terroranschläge geplant zu haben. Man fragt sich wie es möglich war, dass sich solch ein Netzwerk in der **streng organisierten Bundeswehr (AV & CA)** gründen konnte ohne **dass es jemand mitbekommen hat (CA)**. Wenn man sich vorstellt, dass Soldaten, das was sie in der **Bundeswehr lernen ausnutzen um mit diesem Wissen Terrorangriffe zu verüben (EB)**, scheint dies wie ein Albtraum. Früher war es den Vorgesetzten noch möglich mit ihren Untergegeben ein **Bier trinken zu gehen (CA)**, heute sind sie mit der **Bürokratie (AV)** ihres Jobs völlig überlastet und können keine Beziehung zu ihren Soldaten aufbauen. **Die Bundeswehr ist immer auch ein Spiegelbild der Gesellschaft. Wenn sich in Deutschland immer mehr Menschen aus der Mitte in die lins- oder rechtsextreme Seite bewegen, so kann man dies auch in der Bundeswehr beobachten (EB)**.

7. Stimuli Glosses DGS in German Bundeswehr / modality specific version

APRIL-ENDE ZEITRAUM /F-R-A-N-C-O A./ SELBST SOLDAT BUNDESWEHR VERHAFTEN. GRUND VERMUTUNG SELBST PLAN TERROR-ANSCHLAG. LEUTE ÜBERLEGEN, SORGEN WIE BUNDESWEHR STRUKTUR STRENG *CA > SOLDAT-STRAMMSTEHEN CA > NICHT-WISSEN* NETZWERK GRÜNDEN. VORSTELLUNG BILD SOLDAT **BUNDESWEHR IN WISSEN-AUFNEHMEN++ CL-WISSEN-WACHSEN CL-WISSEN AUSNUTZEN INDx PLAN TERROR-ANGRIFF** WOW ALBTRAUM. FRÜHER SOLDAT CHEF MÖGLICH MAL++ BIER *CA > UNTERHALTEN*. HEUTE BÜROKRATIE ANTRAG++ MAIL-SCHICKEN++ **CL-PAPIER-STAPEL++** STRESS. ZEIT FÜR SOLDAT BEZIEHUNG++ KNÜPFEN++ KEIN. **GESELLSCHAFT SPIEGEL CL-SPIEGEL-AUFKLAPPEN>MOV:LI BUNDESWEHRT INDxli POLITIKRE MITTERE MAßRE CL-RECHTS CL-LINKS CL-SPIEGEL BUNDESWEHR AUCH RECHTS LINKS, CL-RECHTS CL-LINKS WACHSEN++.**

7. Stimuli Glosses DGS in German Bundeswehr / second version without strategies

APRIL-ENDE ZEITRAUM /F-R-A-N-C-O A./ SELBST SOLDAT /BUNDESWEHR/ VERHAFTEN. GRUND VERMUTUNG SELBST PLAN TERROR-ANSCHLAG. LEUTE ÜBERLEGEN, SORGEN WIE /BUNDESWEHR/ STRUKTUR STRENG NICHT-WISSEN NETZWERK GRÜNDEN. VORSTELLUNG BILD SOLDAT /BUNDESWEHR/ IN WISSEN-AUFNEHMEN++ LERNEN WIE BENUTZEN TECHNIK TERROR-ANSCHLAG WOW ALBTRAUM. FRÜHER SOLDAT CHEF MÖGLICH MAL++ BIER. HEUTE BÜROKRATIE ANTRAG++ MAIL-SCHICKEN++ STRESS. ZEIT

FÜR SOLDAT BEZIEHUNG KNÜPFEN++ KEIN. GESELLSCHAFT /BUNDESWEHR/ INDx SPIEGEL. DEUTSCHLAND POLITIK MITTE, MAß RECHTS, LINKS MEHR++. /BUNDESWEHR/ AUCH.

7. Stimuli English Bundeswehr

At the end of April, Bundeswehr soldier Franco A. was arrested on suspicion of planning terrorist attacks. One wonders how it was possible for such a network to form in the **strictly organized Bundeswehr (VE & CA) without anyone noticing (CA)**. If one imagines **that soldiers exploit what they learn in the Bundeswehr to carry out terrorist attacks with this knowledge (EB)**, this seems like a nightmare. In the past, superiors were still able to **go out for a beer with their subordinates (CA)**, but today they are completely overburdened with the **bureaucracy (VE)** of their job and cannot build a relationship with their soldiers. **The Bundeswehr is always a reflection of society. If more and more people in Germany are moving from the center to the left- or right-wing extremist side, this can also be observed in the Bundeswehr (EB)**.

7. Stimuli Glosses DGS in English Bundeswehr / modality specific version

APRIL-END TIME-FRAME /F-R-A-N-C-O A./ SELF SOLDIER /BUNDESWEHR/ ARREST. REASON SUSPECT SELF PLAN TERROR ATTACK. PEOPLE CONSIDER WORRY HOW-POSSIBLE /BUNDESWEHR/ STRUCTURE STRICTLY *CA > SOLDIER-STAND-AT-ATTENTION* SOLDIER ARREST *CA > NON-KNOWLEDGE NETWORK ESTABLISH*. IMAGINE PICTURE **SOLDIER /BUNDESWEHR/ GAIN-KNOWLEDGE++ CL-KNOWLEDGE-GROWTH CL-KNOWLEDGE EXPLOIT INDx PLAN TERROR ATTACK** WOW NIGHTMARE. PAST-TIME SOLDIER-SUPERIOR POSSIBLE TIMES++ BEER *CA > CHAT*. TODAY BUREAUCRACY APPLICATION++ MAIL-SEND++ **CL-PAPER-STACK++** STRESS. TIME FOR SOLDIER RELATIONSHIP++ BUILD++ NONE. **SOCIETY MIRROR CL-MIRROR OPEN-UP>MOV:LI BUNDESWEHR INDxli POLITICS MODERATE, CL-RIGHT CL-LINKS, CL-MIRROR /BUNDESWEHR/ ALSO RIGHT LEFT, CL-RIGHT CL-LEFT GROW++**.

7. Stimuli Glosses DGS in English Bundeswehr / second version without strategies

APRIL-END TIME-FRAME /F-R-A-N-C-O A./ ARREST SELF SOLDIER /BUNDESWEHR/. REASON SUSPECT SELF PLAN TERROR ATTACK. PEOPLE CONSIDER WORRY HOW /BUNDESWEHR/ STRUCTURE STRICT NO-KNOWLEDGE NETWORK ESTABLISH. IMAGINE

PICTURE SOLDIER /BUNDESWEHR/ IN KNOWLEDGE-GAIN++ LEARN HOW USE TECHNIQUE TERROR-ATTACK WOW NIGHTMARE. IN-PAST SOLDIER-SUPERIOR POSSIBLE TIME++ BEER. TODAY BUREAUCRACY APPLICATION++ MAIL-SENDING++ STRESS. TIME FOR SOLDIER RELATIONSHIP MAKE++ NONE. SOCIETY /BUNDESWEHR/ INDx MIRROR. GERMANY POLITICS CENTER MODERATE RIGHT, LEFT MORE++. /BUNDESWEHR/ ALSO.

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8. Stimuli DGS and English Voiceover EU & Turkey

8. Stimuli German EU & Turkey

Die **Beziehung zwischen der EU und der Türkei** ist im Moment sehr angespannt. Bei einem **Treffen zwischen EU-Politiker*innen und Erdogan (RK)** wurden viele wichtige Themen **besprochen (RK)** wie beispielsweise die Inhaftierung zahlreicher Journalist*innen. Yücel, **der einen deutschen sowie einen türkischen Pass hat (RK)**, sitzt seit einigen Wochen im Gefängnis. Bei einer großen **Demonstration (AV)** für die Freilassung von Yücel waren einige Hundert Menschen **dabei (KK & CA)**. Bei Interviews der Demonstrant*innen wurde klar, dass viele Erdogans Handlungen **nicht verstehen (CA)** und ihn als **Diktator (CA)** sehen. **Beim Treffen zwischen den EU-Politiker*innen und Erdogan (RK)** schienen beide Parteien **freundlich und es wurde sich sogar umarmt (CA)** – vermutlich nur weil **die Presse (VE)** im Raum war.

8. Stimuli Glosses DGS in German EU & Turkey / modality specific version

/EU/>LOCI:RE /TÜRKEI/INDxLI CL-SPANNUNG. /EU/ POLITIK-MENSCH+>LOC:RE /ERDOGAN/>LOC:LI CL-MEHR-PERSON>MOV:MITTE CL-1-PERSON>MOV:MITTE AUSTAUSCH VIEL THEMA++ WICHTIG++. BEISPIEL VIEL JOURNALIST GEFÄNGNIS EINSITZEN. /Y-Ü-S-E-L/ /DEUTSCH/ PASS /TÜRKEI/ PASS DA CL-PASS-HALTENRE CL-PASS-HALTENLI. VOR-

WOCHE++ GEFÄNGNIS EINSITZEN. GROß **DEMONSTRATION CL-SCHILD-HALTEN** KOMMEN HUNDERT++ MENSCH++ **DEMONSTRIEREN-CL-MARSCH**, PROTEST /Y/ GEFÄNGNIS EINSITZEN *CA > PROTEST* NEIN. DEMONSTRATION GEWESEN INTERVIEW-AUF, ANTWORT++: /EU/ /ERDOGAN/ <u>**CA/CD > BLICK-VON-OBEN-NACH-UNTEN HANDLUNG VERSTEHEN**</u>_{NEG}. **BILD WIRKUNG DIKTATOR** *CA > THRON-SITZEN, REGELN* <u>SCHAUEN</u>_{MOV:ZU.E}. **/EU/ POLITIK-MENSCH++**_{>LOCI:RE} **/ERDOGAN/**_{>LOCI:LI} **CL-MEHR-PERSON**_{>MOV:MITTE} **CL-1-PERSON**_{>MOV:MITTE} AUSTAUSCH *CA >***FREUNDLICH UMARMUNG.** PRESSE DA **CL-FOTO-SCHIEßEN** *CA > UMARMUNG.*

8. Stimuli Glosses DGS in German EU & Turkey / second version without strategies

/EU/ /TÜRKEI/ BEZIEHUNG BEIDE NICHT-OPTIMAL. /EU/ POLITIK-MENSCH++ /ERDOGAN/ TREFFEN BESPRECHEN VIEL THEMA++ WICHTIG. BEISPIEL VIEL JOURNALIST GEFÄNGNIS EINSITZEN. /Y-Ü-S-E-L/ /DEUTSCH/ PASS /TÜRKEI/ PASS DA. PAAR-WOCHEN SCHON GEFÄNGNIS EINSITZEN. GROß DEMONSTRATION HUNDERT++ MENSCH++ PROTEST /Y/ GEFÄNGNIS EINSITZEN. DEMONSTRATION GEWESEN INTERVIEW-AUF, ANTWORT /ERDOGAN/ INDx HANDLUNG NICHT VERSTEHEN_{NEG}, BILD DIKTATOR. /EU/ POLITIK-MENSCH++_{>LOCI:RE} /ERDOGAN/_{>LOC:LI} TREFFEN FREUNDLICH WARM UMARMUNG. PRESSE DA, DESWEGEN MACHEN SO.

8. Stimuli English EU & Turkey

The relationship **between the EU and Turkey** is very tense at the moment. At a **meeting between EU politicians and Erdogan (CR)**, many important issues were **discussed (CR)**, such as the imprisonment of numerous journalists. Yücel, **who has a German as well as a Turkish passport (CR)**, has been in prison for several weeks. At a large **demonstration (VE)** for the release of Yücel, several hundred **people were present (CSA & CA)**. During interviews of the demonstrators it became clear that many **do not understand Erdogan's actions (CD)** and **see him as a dictator (CD)**. At the **meeting between the EU politicians and Erdogan (CR)**, both parties **seemed friendly and there was even hugging (CA)** - probably only because **the press (VE)** was in the room.

8. Stimuli Glosses DGS in English EU & Turkey / modality specific version

/EU/_{>LOCI:RE} **/TURKEY/**_{INDxLI} **CL-TENSION.** **/EU/ POLITICS-PEOPLE++**_{>LOC:RE} **/ERDOGAN/**_{>LOC:LI} **CL-MORE-PERSON**_{>MOV:CENTER} **CL-1-PERSON**_{>MOV:CENTER} **DEBATE** MANY

TOPIC++ IMPORTANT++. EXAMPLE MANY JOURNALIST JAIL. **/Y-Ü-S-E-L/ /GERMAN/ PASSPORT /TURKEY/ PASSPORT HAVE CL-PASSPORT-HOLD-IN-HAND**ᴿᴱ **CL-PASSPORT-HOLD-IN-HAND**ʟɪ. PAST-WEEK++ JAIL DETENTION. BIG **CL-HOLD-SIGN** COME HUNDRED++ PEOPLE++ **DEMONSTRATE-CL-MARCH**, PROTEST /Y/ JAIL IMPRISONMENT CA > PROTEST NO. DEMONSTRATION FINISH INTERVIEW-ON, ANSWER++: /EU/ /ERDOGAN/ CA/CD > LOOK-UP-AND-DOWN ACTION UNDERSTANDɴᴇɢ. PICTURE SEEM-TO DICTATOR *CA > THRONE-SIT, RULES* LOOKᴹᴼⱽ:ᵀᴼ.ᴱ. **/EU/ POLITICS-PEOPLE++**>ʟᴏᴄɪ:ʀᴱ **/ERDOGAN/**>ʟᴏᴄɪ:ʟɪ **CL-MORE-PERSON**>ᴹᴼⱽ:ᶜᴱᴺᵀᴱʀ **CL-1-PERSON**>ᴹᴼⱽ:ᶜᴱᴺᵀᴱʀ **DEBATE** *CA > FRIENDLY HUG*. PRESS THERE **CL-CAMERA-CLICK** *CA > HUG*.

8. Stimuli Glosses DGS in English EU & Turkey / second version without strategies

/EU/ /TURKEY/ RELATIONSHIP BOTH NOT-OPTIMAL. /EU/ POLITICAL-PEOPLE++ /ERDOGAN/ MEETING DISCUSS MANY TOPIC++ IMPORTANT. EXAMPLE MANY JOURNALIST JAIL. /Y-Ü-S-E-L/ /GERMAN/ PASSPORT /TURKEY/ PASSPORT THERE. FEW WEEKS ALREADY IN PRISON. BIG DEMONSTRATION HUNDRED++ PEOPLE++ PROTEST /Y/ JAIL IMPRISONMENT. DEMONSTRATION FINISH INTERVIEW, RESPONSE /ERDOGAN/ INDx ACTION NOT UNDERSTAND, PICTURE DICTATOR. /EU/ POLITICS PEOPLE++>ʟᴏᴄɪ:ʀᴱ /ERDOGAN/>ʟᴏᴄ:ʟɪ ᴹᴱᴱᵀ FRIENDLY WARM HUG. PRESS THERE, THAT'S WHY DO THIS-WAY.

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9. Stimuli DGS and English Voiceover US & Turkey

9. Stimuli German US & Turkey

Bei einem kürzlich sattgefundenen **Treffen zwischen Trump und Erdogan (RK)** haben sich beide über eine zukünftige Zusammenarbeit **ausgetauscht (RK)**. **Barack Obama hatte sich von der türkischen Regierung (KK) aufgrund ihrer Haltung zu Menschenrechten entfernt (EB &CA)**. Als **beide dann vor die Presse traten (RK)**, gab Trump sein bestes als **friedfertiger und charmanter Präsident (AV&CA)** aufzutreten. Doch die Pressevertreter hatten Fragen zu einem anderen Thema. Sie wollten mehr wissen über die Geheimnisse, die Trump an Lawrow **ausgeplaudert (AV)** hatte. Der amerikanische Präsident **soll stolz geprahlt haben** mit den neuesten Plänen der amerikanischen Regierung zur Bekämpfung des IS **(CA/CD) .**

9. Stimuli Glosses DGS in German US & Turkey / modality specific version

VOR-KURZEM /TRUMP/>LOCI:RE /ERDOGAN/>LOCI:RE TREFFEN CL-PERSONRE>MOV:MITTE CL-PERSONLI>MOV:MITTE AUSTAUSCH ZUKUNFT ZUSAMMENARBEIT WIE-SIEHT-AUS. **/OBAMA/ /ERDOGAN/ UNABHÄNGIGKEIT, ABSTAND *CA > SCHAU-OBEN-NACH-UNTEN, MENSCH-RECHT VERLETZEN++*. ABLÖSEN>MOV:VON.ERDOGAN. ANNÄHERUNG>MOV:VON.ERDOGAN.ZU.TRUMP** TRUMP. PRESSE-KONFERENZ CL-1-PERSONRE>MOV:MITTE CL-1-PERSONLI>MOV:MITTE. /TRUMP/ *CA > FREUNDLICH, LÄCHELN* WIRKUNG. **MASKE>MOV:IN.GESICHT.** PRESSE-VERTRETER CL-STUHL-REIHE-SITZEN++ FRAGE++>MOV:AN.TRUMP. **CD > BESCHEID, THEMA WEG-SCHIEBEN, FRAGE PERSON L-A-W-R-O-W PERSON FRAGE TREFFEN *CA > IN-SCHUBLADE-KRAMEN GEHEIM-PAPIER GEBEN>MOV:AN.LAWROW AUSPLAUDERN INDEXPAPIER WAS?*** TRUMP>LOCI:RE *CD > WIR DA PLAN LIST-BUOYS IS ANGRIFF.*

9. Stimuli Glosses DGS in German US & Turkey / second version without strategies

VOR-KURZEM /TRUMP/>LOCI:RE /ERDOGAN/>LOCI:RE TREFFEN. BESPRECHEN ZUSAMMENARBEIT WIE-SIEHT-AUS. /OBAMA/ /ERDOGAN/ ABSTAND /TÜRKEI/ REGIERUNG SEHEN MENSCH-RECHTE VERLETZEN++. PRESSE-KONFERENZ /TRUMP/ MÜHE FREUNDLICH WIRKUNG. PRESSE-VERTRETER CL-STUHL-REIHE-SITZEN++ INDxSIE FRAGE++>MOV:AN.TRUMP WEG, ANDERES THEMA. NEUGIER /TRUMP/ /L-A-W-R-O-W/, /RUSSLAND/-PERSON, TREFFEN CL-1-PERSONVORN>MOV:MITTE CL-1-PERSONHINTEN>MOV:MITTE. GEHEIM AUSPLAUDERN INHALT WAS. TRUMP STOLZ USA PLAN LIST-BUOYS IS-GEGEN.

9. Stimuli English US & Turkey

At a recent **meeting between Trump and Erdogan (CR)**, the **two exchanged views (CR)** on future cooperation. **Barack Obama had distanced himself from the Turkish government (CSA) because of their attitude towards human rights (EB&CA)**. When **both then appeared before the press (CR)**, **Trump did his best to appear as a peaceful and charming president (AV&CA)**. But members of the press had questions about a different topic. They wanted to know more about the **secrets Trump had blurted out to Lavrov (VE)**. The American president is said to **have proudly bragged** about the latest plans of the American government to fight IS **(CA/CD)** .

9. Stimuli Glosses DGS in English US & Turkey / modality specific version

RECENTLY **/TRUMP/>LOCI:RE /ERDOGAN/>LOCI:RE MEET CL-PERSONRIGHT>MOV:MIDDLE CL-PERSONLEFT>MOV:MIDDLE EXCHANGE** ON FUTURE COOPERATION HOW-DOES-IT-LOOK. **/OBAMA/ /ERDOGAN/ INDEPENDENCE, DISTANCE *CA > LOOK-UP-DOWN, HUMAN-RIGHTS-VIOLATE++*. DETACH>MOV:FROM.ERDOGAN. APPROACH>MOV:FROM.ERDOGAN.TO.TRUMP** TRUMP. PRESS-CONFERENCE **CL-1-PERSONRIGHT>MOV:CENTER CL-1-PERSONLEFT>MOV:CENTER.** /TRUMP/ *CA > FRIENDLY, SMILE IMPRESSION* MASK>MOV:IN.FACE. PRESS-REPRESENTATIVE CL-CHAIR-ROW-SITTING++ QUESTION++>MOV:AN.TRUMP. **CD > UTTER, SUBJECT PUT AWAY, QUESTION PERSON L-A-W-R-O-W PERSON QUESTION MEET *CA > RUMMAGE IN-DRAWER GIVE SECRET PAPER*>MOV:AN.LAWROW BLAB INDxPAPER WHAT?** TRUMP>LOCI:RE **CD > WE HAVE PLAN LIST-BUOYS IS-ATTACK.**

9. Stimuli Glosses DGS in English US & Turkey / second version without strategies

RECENTLY MEET /TRUMP/>LOCI:RE /ERDOGAN/>LOCI:RE. DISCUSS COOPERATION WHAT-LOOK-LIKE. /OBAMA/ /ERDOGAN/ DISTANCE /TURKEY/ GOVERNMENT SEE HUMAN-RIGHTS VIOLATE++. PRESS-CONFERENCE /TRUMP/ EFFORT FRIENDLY IMPRESSION. PRESS-REPRESENTATIVE CL-CHAIR-ROW-SITTING++ INDxSIE QUESTION++>MOV:AN.TRUMP BRUSH-AWAY, OTHER TOPIC. CURIOSITY /TRUMP/ /L-A-W-R-O-W/, /RUSSIA/-PERSON, MEET CL-1-PERSONFRONT>MOV:MIDDLE CL-1-PERSONBACK>MOV:MIDDLE. SECRET SPILL CONTENT WHAT. TRUMP PRIDE USA PLAN LIST-BUOYS IS-AGAINST.

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10. Stimuli DGS and English Voiceover Election France

10.   Stimuli   German   Election   France

Bei der Wahl zum nächsten Präsidenten Frankreichs traten **Marine LePen und Emmanuel Macron (RK)** gegeneinander an. Beide hatten sehr **unterschiedliche Meinungen zum Thema Europa und fundamental verschiedene Ideen zu Frankreichs Zukunft (RK)**. **Berlin (KK)** betrachtete die Wahl mit gemischten Gefühlen, verhielt sich jedoch neutral. Nun da **Macron (RK)** die Wahl gewonnen hat und Frankreichs neuer Präsident wird, wird es für Merkel, die schon viele französische Präsidenten **kommen und gehen gesehen hat**, **nicht ausreichen, Macron nur mit schönen Worten willkommen zu heißen (CA/CD)**. **Nach ersten Gesprächen (RK)** scheint deutlich zu werden, dass beide aufeinander angewiesen sind und sich **gegenseitig unterstützen (RK**) müssen.

10. Stimuli Glosses DGS in German Election France / modality specific version

WAHL /FRANKREICH/ PRÄSIDENT NEU **/LEPEN/**>LOCI:RE **/MACRON/**>LOCI:LI BEIDE WETTBEWERB. /EUROPA/ **PERSPEKTIVE**>LOCI:RE **PERSPEKTIVE**>LOCI:LI ANDERS. /FRANKREICH/ ZUKUNFT **BILD**>LOCI:RE **BILD**>LOCI:LI ANDERS. REGIERUNG /DEUTSCHLAND/ BEOBACHTEN NEUTRAL. JETZT KLAR /MACRON/>LOCI:LI WAHL GEWINNEN INDxMACRON.

/MERKEL/ /FRANKREICH/ PRÄSIDENT OFT *CA > CL-1-PERSON_{BACK>MOV:MITTE} CL-1-PERSON_{FRONT>MOV:MITTE} WEG, CL-1-PERSON_{FRONT>MOV:MITTE} WEG, CL-1-PERSON_{FRONT>MOV:MITTE} HAND-SCHÜTTELN WEG.* HAND-SCHÜTTELN, AUSTAUSCH, WORT++, AUSTAUSCH, LOBBY GENUG? NEIN. BEIDE **AUSTAUSCH_{>MOV:RE&LI.NACH.MITTE}** PROZESS KLAR WICHTIG BRAUCHEN **UNTERSTÜTZUNG_{>MOV:RE.NACH.LI.UND.VICE.VERSA}**.

10. Stimuli Glosses DGS in German Election France / second version without strategies

WAHL /FRANKREICH/ PRÄSIDENT NEU /LEPEN/_{>LOCI:RE} /MACRON/_{>LOCI:LI} WETTBEWERB. /EUROPA/ PERSPEKTIVE_{>LOCI:RE} ANDERS. /FRANKREICH/ ZUKUNFT BILD ANDERS. REGIERUNG /DEUTSCHLAND/ BEOBACHTEN NEUTRAL. JETZT KLAR /MACRON/_{>LOCI:LI} INDx_{MACRON} WAHL GEWINNEN. /MERKEL/ /FRANKREICH/ PRÄSIDENT SEHEN WEHCSEL++. GENUG HÄNDE-SCHÜTTELN, HERZLICH-WILKOMMEN, VERWÖHNEN NEIN. BEIDE AUSTAUSCH KLAR PROZESS WOW WICHTIG, BRAUCHEN UNTERSTÜTZUNG.

10. Stimuli English Election France

In the election for the next president of France, **Marine LePen and Emmanuel Macron (RK)** competed against each other. Both had **very different opinions on the subject of Europe and fundamentally different ideas about France's future (RK)**. **Berlin (KK)** viewed the election with mixed feelings, but remained neutral. Now that Macron has won the election and will be France's new president, it will not be enough for Merkel, *who has seen many French presidents come and go*, to just **welcome Macron with nice words (CA/CD)**. After **initial talks (RK)**, it seems clear that both are **dependent on each other and must support each other (RK)**.

10. Stimuli Glosses DGS in English Election France / modality specific version

ELECTION /FRANCE/ PRESIDENT NEW **/LEPEN/_{>LOCI:RE} /MACRON/_{>LOCI:LI} BOTH COMPETITION. /EUROPE/ PERSPECTIVE_{>LOCI:RE} PERSPECTIVE_{>LOCI:LI} DIFFERENT. /FRANCE/ FUTURE PICTURE_{>LOCI:RE} PICTURE_{>LOCI:LI} DIFFERENT**. **GOVERNMENT /GERMANY/** OBSERVE NEUTRAL. NOW CLEAR /MACRON/_{>LOCI:LI} ELECTION WIN INDx_{MACRON}. /MERKEL/ /FRANCE/ PRESIDENT OFTEN **CA > CL-1-PERSON_{BACK>MOV:CENTER} CL-1-PERSON_{FRONT>MOV:CENTER} AWAY, CL-1-PERSON_{FRONT>MOV:CENTER} AWAY, CL-1-PERSON_{FRONT>MOV:CENTER} HAND SHAKING AWAY.** HAND-SHAKE, DISCUSS, WORD++,

DEBATE, LOBBY ENOUGH? NO. BOTH **DEBATE**>MOV:RE&LI.TO.CENTER **PROCESS CLEARLY IMPORTANT NEED SUPPORT**>MOV:RE.TO.LI.AND.VICE.VERSA.

10. Stimuli Glosses DGS in English Election France / second version without strategies

ELECTION /FRANCE/ PRESIDENT NEW /LEPEN/>LOCI:RE /MACRON/>LOCI:LI COMPETITION. /EUROPE/ PERSPECTIVE>LOCI:RE DIFFERENT. /FRANCE/ FUTURE PICTURE DIFFERENT. GOVERNMENT /GERMANY/ OBSERVE NEUTRAL. WIN NOW CLEAR /MACRON/>LOCI:LI INDxMACRON ELECTION. /MERKEL/ /FRANCE/ PRESIDENT SEE CHANGE++. ENOUGH HAND-SHAKING, WARM-WELCOME, PAMPERING NO. BOTH DEBATE CLEAR PROCESS WOW IMPORTANT, NEED SUPPORT.