

# Assessing consumers' needs: a case study

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## Abstract

In this case study we explore the linguistic resources that deaf interpreters draw upon to accommodate the needs of their consumer, using communication accommodation theory. We use a case study approach to identify what resources are employed by a deaf interpreter for a client with idiosyncratic communicative needs. By identifying the resources used we also consider how we can ensure these strategies are taught to interpreters in education going forwards.

**Keywords:** Communication Accommodation Theory, foreigner talk, prosody, coherence and cohesion, shifts in concept levels

## 1 INTRODUCTION

It is every sign language interpreter's job to interpret in a way that is appropriate for the situation, is adjusted to the consumer's needs and, most importantly, delivers the message of the source text. But sometimes, hearing sign language interpreters fall short; if the consumer in question has limited language skills or special communicative needs, the hearing sign language interpreter may have difficulty in adjusting their sign language to the consumer's linguistic needs. In these situations, the hearing interpreter can benefit from working together with a deaf sign language interpreter (DI) who is more able to accommodate the target text to meet the consumer's needs.

Many challenging interpreting situations have been solved by calling upon a deaf interpreter to "do their thing" which includes sign language modification. But how do the deaf interpreters do this? What specific language modification skills are they using to accommodate the consumer's linguistic needs? These and similar questions have been asked in the sign language interpreting literature for the last 10-20 years (Cokely, 2005; Forestal, 2005) but no research has been conducted to explore this issue further.

Some researchers see the deaf interpreter's special skills in language modification as part of their Deaf Extra-Linguistic Knowledge (called DELK, NCIEC 2010), acquired as they grow up in the deaf community with a sign language as their first language. They have seen greater variation in the use of sign language, they have maybe occasionally interpreted for friends or family members who were not fluent in sign language, they understand what it is like to struggle to communicate with hearing people or to understand hearing interpreters, and they themselves have experienced discrimination and repression. This knowledge, some authors claim, is the foundation of the deaf interpreter's special skills in language modification.

Obviously, all these elements of DELK are contributing to the deaf interpreters' sensitivity to the consumer's needs and enable the DI to interpret in a culturally appropriate way that ensures the consumer feels more comfortable in the situation. But all these factors are, as the name states, *extra*-linguistic. We still need to explore what *intra*-linguistic tools the deaf interpreters use in their accommodation to the consumer's language too. This article will try to solve the mystery of deaf interpreter's intra-linguistic knowledge and will be conducted following these research questions:

- What linguistic resources do deaf interpreters draw upon in their accommodation to a consumer with special communicative needs?
- How can knowledge of these resources be put into use in the education of future interpreters?

From the linguistic point of view, it is most plausible that, being L1 speakers of sign language, the DIs draw upon some kind of native-speaker intra-linguistic knowledge. This article will therefore primarily be socio- and text linguistic in its approach, but because of the broad research scope of the subject, will also include theories from cognitive semantics, interpreting and communication studies.

## 2 WHAT WE ALREADY KNOW ABOUT THE INTERPRETING STRATEGIES OF DIS AND COMMUNICATION ACCOMMODATION

### 2.1 Literature review

As already mentioned, we do not know much about the communication accommodation of DIs or what the DIs actually do to match the needs of the consumer when they are interpreting. Stone (2009) has investigated how the sign language output of DIs and HIs differ. Stone's material was recordings of the translation of the daily news broadcast on regional television, performed by both deaf and hearing interpreters for an audience of native British Sign Language users. In the material, he found both strategic translation and linguistic differences between the output of deaf and hearing interpreters, and on the basis of this, he puts forward a theory of *the deaf translation norm*. The difference between the HIs and DIs was not to be found in their lexical choices. The most striking differences were in their prosody and intonation. The DIs made more, and clearer, boundary markings in the form of head nods and blinking, and through these non-manual movements, a discursual prosodic cohesion was created. The blinking frequency of the DIs in their translation was similar to the frequency of blinking in normal conversation. Also, the DIs used a special set of phrasal head movements nested within the clause. According to Stone, this nesting of phrasal head movements creates a sentence comparable to a relative clause. These are superarticulatory elements that create cohesion in the target text.

Stone finds that these cohesive, prosodic "instruments" facilitate comprehension and ensure greater rapport between interpreter and consumer (Stone 2009). Other than these special linguistic traits, Stone also mentions the use of visual information from the context and greater use of enrichment and impoverishment in the output of the Dis – that is, adding something to, or omitting something from the target text in order to make the message clearer.

According to Stone's findings, one of the linguistic tools DIs use in accommodating the consumer, is a specific prosody that facilitates comprehension. However, Stone's findings cannot on its own fully shed light on the issue of the DIs' language accommodation, which is the topic here. First of all, in Stone's material the consumer is obviously not present and therefore the interpreters are not able to accommodate their language to a specific consumer – instead they interpret for a construed consumer, a kind of "sum of all viewers". Also, the material in question is actually recordings of translations, not interpretations, since the interpreters receive a script of the news broadcast beforehand and they are therefore able to more or less plan how they will interpret before they go live. For these reasons, it is not possible to directly apply Stone's findings to the issue of consumer assessment and language accommodation, that is the topic here. However, Stone's deaf translation norm can give us a hint as to what kind of linguistic tools the DIs use. At least it seems that a specific prosody is one of the tools DIs use to create rapport with the consumer and to facilitate perception.

Forestal (2011) has also investigated the output of DIs and how they work together with hearing interpreters. Via interviews and think aloud protocols (TAPs), Forestal tried to get "into the minds" of DIs to find out what they do, when they interpret. One of Forestal's findings was the importance of consumer assessment prior to the interpreting assignment. According to the interviews, the consumer assessment would include information about the consumer's "age, gender, deaf world experiences, educational background, occupation, world knowledge, related experiences and knowledge of the topics in question"

(Forestal, 2011, p.111). In addition to this general information about the consumer, Forestal's findings state that linguistic assessment is also needed, i.e. the consumer's sign language, both the discourse organisation and sign vocabulary, but also the consumer's English level and the "non-linguistic behaviour" (Forestal, 2011). According to Forestal, DIs use both intra- and extra-linguistic knowledge in their linguistic accommodation to the consumer.

Cerney (2004) investigated the target language text of deaf interpreters in a conference setting and compared this to the source language text. Cerney's analysis shows that the DIs produce "a more culturally appropriate and idiomatic target text" (Cerney, 2004, p.93). What exactly is meant by this, is not completely clear, but one can speculate that "a more idiomatic target text" could mean a more coherent text with lexical choices that match the consumer's needs. Even so, Cerney's results indicate that DIs use knowledge of sign language as native speakers to be able to produce a target text that is appropriate for the consumer's needs.

Summing up, not much has been written about the language accommodation skills of DIs *in situ*, but some findings indicate that DIs use both extra- and intra-linguistic tools. As Forestal shows, it seems that DIs use a (conscious) assessment of the consumer using both intra- and extra-linguistic information. Moreover, according to Cerney, they use native speaker knowledge of idiomatic language use, and, according to Stone, they use prosodic elements to create cohesion in the target text. It is therefore plausible that DIs use intra-linguistic knowledge in their accommodation to the consumer. This knowledge is most likely a knowledge that comes from being a native speaker of sign language. This in many ways concurs with Communication Accommodation Theory.

## **2.2 Communication Accommodation Theory**

Communication Accommodation Theory (CAT) is a sociolinguistic theory of L1-speakers and their capacity to accommodate their speech to the interlocutor. The theory was first put forward by Giles (1973) and was an attempt to explain the intrapersonal speech variation in interpersonal encounters, or in Giles' own words "those speech changes which appear to be instigated by the speaker's motivation to gain approval of, or dissociate himself from, the listener" (Giles and Powesland, 1975, p. 167). Over time, accommodation theory has been expanded to also cover instances of language accommodation in situation where a high level of communication efficiency is desirable (Coupland, 1984).

CAT is linked to the theories of linguistic indexicality. A linguistic *index* is a structure, such as an interrogative, a diminutive or a special pitch, that through cultural transfer from one generation to the next is associated with a certain social identity or stereotype (Ochs, 1996). By using a certain index in your language, you can signal to others that you are a member of a certain social group (ingroup) or that you most certainly are not (outgroup). According to CAT, these indexes can also be used to accommodate (or converge) to your interlocutor and his or her social group, hereby creating solidarity (Giles, Coupland and Coupland, 2010).

This language accommodation can happen in a variety of ways. Among the documented linguistic tools for accommodation are variations in: word and sentence length (Levin og Lin, 1988; Matarazzo et al., 1968), speech rate (Street, 1983), information density (Aronsson et al., 1987), phonological variation (Coupland, 1984) and temporal variation and code switching (Kontra and Gosy, 1988). The language accommodation happens unconsciously through an assessment of the interlocutor. The native speaker makes an assessment of the social stereotype to which the interlocutor is connected and converges to this in his or her speech (Giles, Coupland and Couland, 2010). The assessment of the interlocutor is based on general knowledge of the person and the person's interpretive competence, accent, lexical diversity, etc. (Giles, Couland and Coupland, 2010).

Accommodation can also be desirable and required in situations where the interlocutor has special linguistic needs. Most people accommodate their language when speaking to a child, a foreigner or a person with cognitive deficits. In these situations our own vernacular is not sufficient if we want the other person to understand the message. The language accommodation in these situations, the literature calls "*foreigner talk*". Many studies have shown how native speakers automatically accommodate their

language when speaking to a foreigner (Ellis, 1985; Hatch, 1983; Larsen-Freeman et al., 1985). Among the linguistic tools for accommodation are:

- lower speech rate
- shorter and simpler sentences
- more questions and question tags
- greater pronunciation/articulation
- fewer pronouns
- less use of contractions
- high frequency words (restricted vocabulary) (Zuengler, 2010, p.234)

This kind of language accommodation also happens following an unconscious assessment of the interlocutor at hand. The assessment is an evaluation of the perceived ethnic and/or cultural differences and the non-natives linguistic and communicative behaviour or stereotype (Zuengler, 2010).

In the following study I claim that DIs make use of traits similar to “foreigner talk” in accommodating to the consumer’s special linguistic needs. The findings in the literature support this hypothesis; Forestal found that DIs assess the consumer and the consumer’s linguistic competences prior to the assignment. The assessment criteria mentioned in Forestal (2011) are very similar to the ones in communication accommodation. Stone’s results also support the idea; the DIs specific prosodic cohesive traits had the purpose to facilitate understanding and to connect with the audience – a purpose very similar to that of indexes. And last, Cerney’s findings of “a more culturally appropriate and idiomatic target text” can be seen as a native speaker’s sense of in- and outgroup indexes and the situations in which they occur.

### **3. DATA AND METHODS OF THE STUDY**

Several things indicate that DIs use intra-linguistic tools similar to the ones in “foreigner talk” in accommodating to the consumer. In this case study I will analyse material from a real interpreting situation, limited by the length of this article.

#### **3.1 Data**

To get as ecologically valid material as possible, I wanted to record a real interpreting situation. In my experience an authentic consumer with a real need for interpretation provides the best motivation for the interpreters and therefore the best results. But I quickly found this was next to impossible, finding an authentic interpreting situation with a consumer and interpreters who were willing to be recorded. Therefore, I decided to simulate the situation, but to make it as realistic as possible. I came into contact with an elderly gentleman who accepted to participate in this study as the deaf consumer. I arranged a preliminary interview with the consumer and had a deaf interpreter with me. This was to ensure that we understood each other but also to perform a mini-assessment of the consumer to see if he fit the criteria for the study. I also wanted to see if I could see some indications of my hypothesis from the DI’s interpretation of the interview. The consumer is in his 60s and originally from Greenland. He has learned Danish Sign Language later in life (in his teens), after the critical period (O’Grady et al., 1996) and thus lacks deeper conceptual understanding. He therefore fits the criteria of a consumer with special linguistic needs.

During our talk we circled in on what his interests are and agreed that he should participate in a first aid course. The interpreting setting was hence a first aid course, arranged by the Danish Red Cross and open to all in return for a small fee. The course lasted 8 hours of presentations and exercises alternately. There were 14 other (hearing) participants in the course. Only the presentations were recorded. Interpreters were present all day, 4 hearing interpreters (hereafter called HI1, HI2, HI3 and HI4) and 3 deaf interpreters (hereafter called DI1, DI2 and DI3). DI1 was certified as a deaf interpreter in Denmark two years ago, but has many years of interpreting experience in international settings. DI2 and DI3 were both certified two years ago and have been working as deaf interpreters in Denmark since then, on a freelance basis. DI1, also being a deaf interpreter coordinator in the agency that delivered the interpreters, knew the aim of this study. DI2 and DI3 plus the four hearing interpreters did not know the aim of the study.

Because of the time constraints and practicalities concerning who was available at the particular date and who consented to being recorded, I was not free to choose the interpreters. Therefore, I unfortunately could not get deaf and hearing interpreters who were used to team interpreting together. On this particular point, the data could be seen as not being ecologically valid. This has to be considered when evaluating the results.

I recorded both deaf and hearing interpreters simultaneously. This was to be able to see the linguistic input the DIs were working from, and to be able to pinpoint instances where the DIs deviated greatly from their source text. The DIs and HIs agreed that the HIs should be feeding Danish Sign Language to the interpreters (not signed Danish). The footage totalled approximately 6 hours. There were some technical errors with the recording equipment during the course, so some parts of the interpretation are not included in the data. This should of course be taken into consideration when evaluating the results.

I was present during the whole of the course, taking notes. This triangulation of methods was to ensure there was some data should there be technical issues, but also to facilitate the analysis afterwards identifying times in the footage to look through. It was beyond the time frame of this study to transcribe the full material and so I took notes when something seemed interesting or was noticeable. For this I used my knowledge of interpreting and my own language sense, as an interpreter who works in the deaf community on a daily basis.

There are two reservations to this method: first, the well-known Labovian "Observer's Paradox" (Labov, 1972) which states that the observer of a situation will always have an impact on the situation and the events just by being there. This has to be considered when assessing the validity of the results later on. Second, some may say that as a hearing L2 speaker of sign language I am a poor observer. But one can also argue the opposite, as an outsider to the (language) community; it is *easier* to spot patterns and correlations (Saville-Troike, 1989). This is at least a well-known method in anthropological research and fits this study well.

Summing up, the data material consists of notes from the preliminary interview with the consumer, recordings of the interpreting of the first aid course and the field notes I made during the interpretation. I consider these data sufficient and appropriate for this study.

### 3.2 Method

In this study, I will investigate the hypothesis that when deaf interpreters accommodate to the consumer's needs they use linguistic tools with similar linguistic traits to "foreigner talk". The method will therefore to some extent be the hypothetical-deductive method, but also explorative because of the broad scope of "looking for what seems immediately noticeable". Being a case study and because of the limited material and extent, this study does not aim to be exhaustive, rather, it aims for laying the grounds for further research on the subject.

I looked through the recordings and my field notes identifying instances where the DI's interpretation differed greatly from the HI's. The null hypothesis being that the DIs and HIs interpretations are completely or almost the same. In these instances, the assumption is that the DIs do not use any specific intra-linguistic tools as L1 speakers to accommodate the consumer. Where examples of differences in HIs' and DIs' interpretations have been identified, I classified the examples linguistically and compared the linguistic traits to the traits of "foreigner talk".

The main focus will be on DI1. Partly because this interpreter is the one with the most training and experience in interpretation, but also because of the limitations of this study which do not allow a full analysis of all the DIs. The findings from DI1 will afterwards be compared to DI2 and DI3 to see if they exhibit the same

linguistic behaviour or not, as a way to triangulate the plausibility of the traits being real linguistic variables and not just instances of the random personal linguistic choices of DI1. I will, however, also use examples from DI2's and DI3's interpretations as and when relevant.

I transcribe the examples following traditional transcription conventions (Engberg-Pedersen, 1998, see the Appendix for abbreviations and transcription conventions) and as appropriate show stills of the linguistic trait in question.

I will use concepts from CAT mentioned above in Section 2.2 throughout the analysis and compare the findings to findings in the literature mentioned above in Section 2.1. I will also use concepts from translation studies such as Schjoldager (2008) and Napier (2016), in particular the interpreting strategies *explicitation*, *paraphrase*, *condensation*, *omission* and *additions*. Briefly: *explicitation* is when something in the target text is made more explicit or specific; *paraphrase* is when something in the source text is translated quite freely in the target text; *condensation* is when a chunk of information in the source text is condensed into a smaller or less complex chunk in the target text; *addition* is when a piece of information that did not occur in the source text is added to the target text; and *omission* is when a piece of information in the source text is omitted in the target text.

## 4. RESULTS

I have found several instances where the DI's and the HI's interpretations differed greatly. The variations are prosodic, lexical and morphosyntactic in nature. I have categorised the findings and will present them under the following headlines: Signing rate, articulation and prosody (Section 4.1), Sentence and text structure (Section 4.2) and Concept levels, paraphrases and additions (Section 4.3).

### 4.1 Signing rate, articulation and prosody

The first noticeable thing was the signing rate of DI1. According to Bellugi and Fisher (1972), the average signing rate is approximately 2,4 signs per second in a usual narrative. Even though this method of counting signs per second seems slightly construed when considering the simultaneity of different articulators in sign language, the method seems to be the simplest way of getting a quick estimate of the signing rate, so I have chosen to follow Bellugi and Fisher, and measure the signing rate this way.

DI1's signing rate was lower average, signing at 1,1 signs per second; HI1's signing rate was also quite low (1,4 signs per second). However, DI1's signing rate was lower than the input and lower than the average in a usual narrative. The lower signing rate of DI1 could be a result of the low signing rate of the HI, since DI2 and DI3 did not have a strikingly lower signing rate than the average, although both DIs signed a little slower than in their normal signing. It is therefore hard to say for certain whether DI1's lower signing rate is a conscious strategy or merely a result of the slower input of HI1. However, if one looks at the numbers alone, a difference of 1,3 signs per second (46%) between the production of a narrative and an interpretation is rather striking. Looking at the interpretations, though, it looks as though the DIs all make an effort to sign in a slower pace than their natural pace, so I think it is safe to say that there actually *is* a consciously lower signing rate going on.

DI1 articulated the signs more clearly, this was reflected partly in the slower signing rate, but also in the lower degree of assimilation of signs. Furthermore, DI1 used a bigger signing space compared to the signing space in normal discourse. Besides the greater articulation of signs and the slower signing rate, DI1 also used a clearer prosody than that found in normal discourse, with some signs lasting longer accompanied by head nods, blinks and other facial expressions to mark boundaries (Engberg-Pedersen, 1998).

Lower production rate and greater articulation are traits usually connected to “foreigner talk”, so DI1’s greater use of these traits could be an indication of a conscious strategy to accommodate to the consumer’s needs. This finding also correlates to Stone’s findings. As mentioned above, Stone found that the deaf interpreters used special prosodic features to create cohesion in the target text. It may very well be the same thing happening in DI1’s translation. The aim is undoubtedly to facilitate comprehension, and as such this is a way to accommodate to the consumers communicative needs.

## 4.2 Sentence and text structure

In several ways DI1’s target text showed language accommodation to the consumer in the structuring of sentences and larger parts of the text, which I will now discuss.

### 4.2.1 Omissions

On several occasions, DI1 omitted parts of the source text in his target text. Some of the omissions may have been unconscious or due to a fault in the team interpreting, but in most instances it seemed omissions were both *conscious* and *strategic* (as Napier classifies omissions when on purpose, Napier, 2016).

#### Ex.1<sup>1</sup>

Speaker:	Now, the topic is haemorrhages. We start by looking at the haemorrhages where the blood is oozing slowly, <b>that is for example if you slice your arm by accident, the blood isn’t actually splashing all over the place, like in the movies.</b>
Interpretation:	now what / blood / blood+long (:in a slow manner) / if little wound blood+long

Here, DI1 is omitting the whole sentence in bold in the source text. Of course, it is always hard to say with certainty whether omissions are made on purpose or not. It could be a conscious, strategic omission, but it could also be an unconscious omission or a conscious unintentional omission (Napier, 2016). This can only be revealed by interviewing the interpreters immediately after the interpretation.

Some points, however, can be made supporting this being a conscious strategic omission: the omitted information is not relevant to the topic; and DI1 may have judged the information to be more confusing than beneficial for the consumer. In general, the introduction of new referents is always a cognitive effort, so accordingly leaving out a referent that most certainly is not to be used later on, would reduce cognitive effort. Hence, leaving it out would make the target text easier to understand. This is also according to Napier the purpose of this kind of omission, to make the target text more comprehensible by leaving out superfluous information.

Also, the recording shows DI1 looking intensely at HI1 while producing BLOOD+long. I see this as a conscious strategy, where DI1 uses BLOOD+long as a filler while receiving more information and then discarding the given information as superfluous.

When something is omitted in the target text, the purpose can be to make the target text less abstract or complex. But omissions can also be made in order to be more “cognitively economic”: If part of the source text is superfluous, it saves mental energy for both interpreter and consumer when left out (Schjoldager, 2008). Finally, omissions can be made to make the target text more idiomatic, following the rules of the target language in question (Schjoldager, 2008). So it is fair to say that DI1’s omissions are part of an interpretation strategy that creates a more relevant, idiomatic and comprehensible target text for the consumer.

1. Translation from Danish



#### 4.2.2. Cohesion and coherence

In some cases, DI1 used the holding of a sign over parts of, or whole sentences, and even over several sentences. These holdings are called *buoys* in the literature (Lidell, 2003). The buoys can have different forms, but they all have the function of creating conceptual landmarks, to keep a referent in the consciousness of the interlocutor. Hence the name buoy: they are reference points in the information stream. In some instances, the buoys were in the form of a numeral in the weak hand as part of a list or enumeration, while the active hand was continuing the interpretation. This kind of buoy is called a *list buoy*:



#### Ex. 2 STILL OF A LIST BUOY

This holding of the referent(s) in the weak hand can serve as a cognitive strategy for the interpreter to keep track of the information stream in the target text. But it can also have a cognitive function for the interlocutor: It keeps the referents constant in the mind of the recipient (Engberg-Pedersen, 1994) and thereby facilitating comprehension.

Another type of buoy is a *fragment buoy* (Lidell, 2003). This kind of buoy leaves a “fragment” of a sign in the weak hand, while continuing to sign with the active hand. DI1 also uses this kind of buoy:

#### Ex. 3

Speaker: This is John, he has been stabbed in the stomach, we watch it happen and the persons who did this, take the knife with them as they flee the scene.

Interpretation: ah: stab Pm: hold-knife \_\_\_\_\_  
wh: run go-away

Here, the fragment buoy is used as a backgrounding of the constituent (knife). Again, the buoy is used to keep the referent foregrounded for the recipient, which is very important in this case (because there is a difference in treatment whether the knife is left in the stab wound or not). Also noticeable is the omission of the name John, but this will be discussed further in Section 4.2.3.

Both examples of buoys represent information structuring and the creation of coherence in a text. When a text is coherent, it is easier to comprehend (Lehmann, 1982 in Engberg-Pedersen, 1994).

DI2 also used buoys and DI3 used slightly more than DI2, but neither DI2 nor DI3 used as many as DI1. HI1, HI2, HI3 and HI4 all used buoys in their interpretations, but primarily list buoys. Both list buoys and fragment buoys are elements that stretch over longer passages of text and their purpose is to make the sentence and text structure simpler (cognitively) and more cohesive, and thereby easier to understand. Simpler sentence and text structure is one of the typical traits of “foreigner talk”, as mentioned above.



#### 4.2.3. Cohesion and reference marking

More cohesion was to be found in DI1's interpretation. DI1 had a very different reference marking than HI1. When referring anaphorically, DI1 used *constructed action*, that is, took on the role of the referent in question instead of pointing to an assigned place in the signing space. Constructed action is a widely used discourse strategy in sign languages. In constructed action, the signer represents the actions, thoughts, feelings or utterances of the referent in question through face, body, head and hands, as if "taking the role" of the referent (Metzger, 1995).

##### Ex. 4

Speaker: Maybe now, the neighbour comes to the door, but in the meantime you have passed out so if he looks through the peephole he can't see anyone and you will not be saved.

Interpretation: neighbour come / but faint fall / neighbour **(CA)** ah:  
Pm: look-through-peephole \_\_\_\_\_  
**(CA)** wh: : see gone cl: person-lies-on-ground

Here, DI1 constructs the action of the neighbour and "you" (meaning the person who needs to be saved). DI1 combines constructed action and a fragment buoy (holding the hand shape of the verb "looking-through-peephole"), as in ex. 3 that could actually serve as an example of constructed action too.

By using constructed action, instead of abstract pronouns or fingerspelled names, the referents are specified and the target text is lowered in complexity level. Like pronouns in spoken languages, the pointing to an assigned position in the signing space is ambiguous and cognitively complex. When using pronouns, the receiver has to remember what the pronouns refer to and this requires some cognitive effort to process. Constructed action or dialogue is less complex and I suggest takes less cognitive effort to perceive.

In some cases, DI1 also used deictic reference by directly pointing to a physical object or in other ways referring directly to something in the surroundings. Deictic reference is even less cognitively complex than constructed action and again it contributes to lowering of the complexity level. Also, constructed action and dialogue help to create cohesion in the text, making the target text easier to comprehend.

DI2 and DI3 both used constructed action and deictic reference, but not as much as DI1. None of the HIs used deictic reference and only constructed action to a limited extent. The use of constructed action decreases the number of pronouns and creates a simpler sentence structure. Both traits are also traits of "foreigner talk", so again a parallel can be drawn.

#### 4.3 Concept levels, paraphrases and additions

Not only were morphosyntactic differences noticeable in the translations of the DIs, variations on the lexical level were also found. This is in contrast to Stone, who did not find greater differences on the lexical level between hearing and deaf interpreters.

##### 4.3.1. Shifts in concept levels

DI1 chose more than once to shift in concept level from source text to target text. Sometimes DI1 shifted to a concept on a higher level in the concept hierarchy, i.e. from a hyponym to a superordinate:

##### Ex. 5

Speaker: Maybe you are looking for a Snickers or a Mars in your bag on the floor of the car

Interpretation: sometimes have chocolate det+r bag / want chocolate  
Pm: look-through-bag

Here, DI1 chooses to translate ‘Snickers’ and ‘Mars’ into the generic term ‘chocolate’. In interpretation theory, it is usual to talk about explicitations (Schjoldager, 2008) where something is made more explicit or tangible. But here, it is almost as if the opposite is happening: an element is made *less* explicit. However, this can be explained in terms of cognitive linguistics: Evidence suggests that the human brain most easily perceives concepts from the middle or *basic* level in the concept hierarchy, in other words concepts such as ‘chair’, ‘dog’ or ‘car’. These are easier to perceive than the corresponding concepts ‘furniture’, ‘mammal’ or ‘vehicle’ from the superordinate level in the hierarchy or ‘Arne Jacobsen’s The Egg’, ‘Cavalier King Charles’ or ‘Honda’ from the subordinate level (Rosch et al., 1976).

Maybe DI1 has chosen the basic level concept chocolate because he instinctively knew that it would be easier for the consumer to understand the generic term. But the choice could also be for more practical reasons: There is no (widely used) Danish sign for ‘Snickers’ or ‘Mars’, so to keep the exact meaning of these words in the target text, DI1 would have been forced to loan the words from English (which are borrowed into Danish) through fingerspelling. DI1 may have found this undesirable, because of the consumer’s linguistic needs and limited literacy skills. Furthermore, the sign CHOCOLATE is a high frequency sign<sup>2</sup>, this might also have affected DI1’s choice in this situation.

Another example of shifts in concept levels is a shift from a higher to a lower level in the hierarchy. In the source text, the speaker uses the Danish word ‘stoffer’ (English: drugs), which DI1 interprets into syringe (or narcotics) – although a sign in Danish Sign Language (DTS) for ‘drugs’ exists. This is an explicitation, since ‘syringe’ is in a lower level in the concept hierarchy than ‘drugs’ (although still a superordinate in DTS meaning injectable substances). As mentioned above, according to Rosch et al. (1976) a subordinate category member should be more difficult to perceive than basic level category members. Considering this, it is surprising that DI1 chooses to translate as he does. But DI1’s choice may very well be linked to the semantics of the Danish sign DRUGS<sup>3</sup>. This sign is in no way iconic. It is a homonym (as well as the Danish word ‘stoffer’) to the sign for ‘fabric’, also making the sign ambiguous. DI1 may have taken this into account when choosing a lower level concept. Also, SYRINGE is maybe a more frequent sign than drugs, which can also have influenced DI1’s translation choice.

In general, all three DIs sometimes shifted in concept levels in their translations. They all used less fingerspelling than in normal conversation and their lexical choices were influenced by the frequency and iconicity of the signs. The shifting in concept levels can be paralleled to the traits of “foreigner talk”: A typical trait is the use of high frequency words or words from basic level categories.

#### 4.3.2. Paraphrasing

A common interpretation strategy for all kinds of interpreters is paraphrasing. Paraphrasing is used when there is no one-to-one translation in the target language or if the complexity level of the form for some reason needs to be lowered (Schjoldager, 2008). DI1 did in several cases use paraphrasing, possibly to render the target text into something more idiomatic.

##### Ex. 6

Speaker:	I would rather give him the chance to survive, knowing that he may be stuck to a wheelchair for the rest of his life, than, trying to avoid the wheelchair, he goes on and dies.
Interpretation:	shakes head
Pm:	holding-head estimate be-careful later injury / important life breathe important

2. I have used the Danish-Danish Sign Language dictionary, tegnsprog.dk for frequency judgements.

3. <http://www.tegnsprog.dk/#%7Csoeg%7C%27tekst%27stoffer%7Cresultat%7C5%7Ctrestjerner%7C0%7Ctegn%7C901>

**Ex. 7**

Speaker: It cannot be an office chair!

Interpretation: must-not chair wheel

**Ex. 8:**

Speaker: First aid kit

Interpretation: box that-is different plaster bandage

In example 6, DI1 may have chosen to focus on the link between the actions of the rescuer and the consequences. The important thing here is not the degree of the injury, but that the rescuer should first and foremost save lives. It could be a cognitive strain for the consumer to understand that injuries in the neck sometimes result in paralysis and therefore a life in a wheelchair – this is a long chain of implicit information for the consumer to take in, so DI1 chose to present a simpler construction both semantically and structurally to lower the complexity level of the target text. One could also argue that the interpretation strategy here is condensation, as a larger chunk of information is made into a rather small chunk in the target text. Both paraphrasing and condensation could be the case here.

In example 7, DI1 may have judged the sign OFFICE^CHAIR to be too ambiguous as any chair that could be placed in an office. The consumer does probably not know the sign OFFICE and therefore will not understand the compound OFFICE^CHAIR. But most importantly, in this situation the connotations of 'office' is not the aim of the speaker. The important thing in this situation was the connotations of a chair having wheels. The subject of this part of the course was the Heimlich manoeuvre and specifically the situation where you need to perform it on yourself. In this case it is important to use a chair that cannot move. This could be the reason for DI1 to choose to explicate by paraphrasing into CHAIR WHEEL (a chair with wheels).

Example 8 is a classic example of paraphrasing and all three DIs used this paraphrase or variations of it. All the DIs used paraphrasing in their interpretations. The goal of paraphrasing is to lower the target text in complexity level. This is also a strategy in "foreigner talk", if the foreign interlocutor does not understand a word, typically the strategies will be to rephrase into a high frequency word or a basic level concept, or to paraphrase. Again, parallels can be drawn to "foreigner talk".

**4.3.3. Additions**

In translation studies, additions are said to be used as a means for cultural mediation, for example when translating religious texts, notes are added to explain the cultural and historical context of the text (Schjoldager, 2008). An addition can take any linguistic form and it is therefore hard to define it structurally. It can only be found by comparing the meaning of the source text and the target text and looking for instances of "extra" meaning in the target text that is not present in the source text. Even though additions are not a clear linguistic variable, I have chosen to include it here because it is an important interpretation strategy and because additions were immediately noticeable in all the DIs' interpretations.

Sometimes it is difficult to tell the difference between additions and other interpretation strategies such as explicitation and paraphrasing, but in the DIs interpretations I found some instances of additions with a clear cultural mediation purpose, or in some cases to elaborate the message of the source text. For example, at some point in the course, the speaker mentions the importance of telling the emergency service the precise location of the accident, but he does not explain why. DI2 elaborates by adding the 'why', i.e. that the ambulance will spend precious time driving around, searching for the accident if the exact location is not given.

Addition is an interpretation strategy that cannot directly be linked to "foreigner talk" as a linguistic trait, but it is still an important tool for DIs. Additions can help elaborate the message and as such, it is a way to create a more idiomatic target text. Also, when mediating cultural issues, additions can be seen as a means to create greater rapport with the consumer. When taking these things in to consideration, additions can

nevertheless be perceived as a tool in communication accommodation even though it is not a linguistic trait.

#### 4.4. Summing up

In the data I found several strategies, which indicate that DIs are actually using intra-linguistic tools to accommodate their language to the consumer's linguistic needs. The tools are prosodic, morphosyntactic and lexical in nature: I found slower signing rate; clear articulation of signs; and a clear prosody; a more simple sentence structure with omissions of elements from the source text; holdings of constituents (buoys); reduced use of pronouns (and instead use of constructed action); and finally paraphrasing and systematic use of high frequency signs or signs from another concept level were common. All in all, many parallels could be drawn to linguistic traits of "foreigner talk". In the following section I will discuss the validity and implications of these findings.

### 5. DISCUSSION

First of all it can be stated that there were differences to be found between the interpretations of the DIs and the HIs. Therefore, the null-hypothesis could not be confirmed and it is safe to say that the DIs must be using some intra-linguistic resources in accommodating to the consumer's language.

Looking at the analysis, it seems fair to say that the resources used are very similar to the linguistic traits of "foreigner talk". It is also quite reasonable to say that DIs have native speaker resources and knowledge that they use while interpreting, and that the specific resources for "foreigner talk" are activated when interpreting for a consumer with special linguistic needs. This group of consumers have linguistic needs similar to a foreigner: they either *are* foreigners with a different native sign language than the DI, or they are cognitively impaired, or have been linguistically under-stimulated while growing up, so their linguistic level in the sign language in question is comparable to a non-native speaker. All the DIs in this study used linguistic traits comparable to "foreigner talk".

On the other hand, there were great individual differences in the output of the DIs and in how much the traits were used. However, some things need to be considered as the traits associated with "foreigner talk" are not fixed and universal. The traits listed in Section 2.2 are the most common traits, but the list is by no means exhaustive and there is room for individual variation. The most important thing in accommodating to an interlocutor's language is the assessment of the interlocutor's needs. This implies the traits can differ depending on the assessment made. Also, it must be considered that the DIs have very different educational backgrounds and experiences with interpreting. The greater the experience, the more resources the interpreter can bring to accommodate to the consumer. So the differences in output and the use of the linguistic traits of the DIs suggest experience is at play. It must also be considered that the HIs and DIs were not used to working together. This may have influenced the results.

The material for this study is large with many hours of footage, but it only includes three deaf interpreters. Many small obstacles can cloud the findings of a case study like this such as the interpreters' mental state on that particular day, the setting, the interpreters' knowledge of the subject and of the aim of the research. Similarly, my mere presence can have influenced the results. The results of a case study can therefore not just be stretched out to cover the whole field due to the limits of the data. One can conclude something with respect to the case at hand and can give us an indication for future research. But it cannot tell us anything generalizable with complete certainty. If the hypothesis here were to be tested properly, a different research design should be used.

Another thing to be considered is a general critique of the communication accommodation theory. Some critics say that accommodation theory is too vague and is often used as a catchall for results that do not fit other analyses (Meyerhoff, 1998). Regarding my hypothesis, it can be claimed that it is a reductive idea that the DIs' special skills merely comes from being native speakers. However, from a linguistic point of view it is not reductive, but simply widely accepted that L1 speakers have a larger repertoire and a broader knowledge of the language and how it can be used, than L2 speakers do (O'Grady et al 1996).

Many deaf people are brought up as bilinguals. Many DIs will therefore not only be proficient in their native sign language but will also know the written language of the community and be comfortable with idiomatic expression and the general structure of that language. Alongside their L1 and the written language of the community, many deaf people also know a second or third sign language. This is a great advantage when working as an interpreter. We now know that bi- or multi-linguals do not have separate “boxes” of language that they can shift between when code-switching, but rather they have a joint language system where all resources are available to the speaker at the same time (Gregersen and Kristiansen, 2015). This gives the DIs a unique set of linguistic resources to draw upon when interpreting and it makes them capable of adjusting their language in a very fine-grained way. This supports the hypothesis of DIs having linguistic tools at their disposal, tools similar to traits of “foreigner talk”.

Further support for the validity of the results comes from the general linguistic theory “The Principle of Cognitive Economy”. Several researchers have put forward and proved theories of linguistic economy, which state that the human mind favours language that uses as little cognitive efforts as possible (Evans and Green, 2006). This effect has produced various maxims of efficient language use, such as Grice’s (1989) Cooperative Principle maxims “Quantity: give only the necessary amount of information” and “Relation: give only information that is relevant to the situation” or Keller’s (1994) maxim: “Talk in such a way that you do not expend superfluous energy”. These ideas from communication theory and cognitive linguistics support the hypothesis that DIs are purposefully interpreting in the most efficient and economic way to deliver the message; the most efficient way is by accommodating their language via linguistic elements customised for the consumer. In this way, it takes the least cognitive effort for the consumer to process the message.

There are arguments for and against the validity of the results and thereby confirmation of the hypothesis. All in all, I find that the results support the hypothesis and along with the evidence from the literature I think it is safe to say that the results are valid and the hypothesis confirmed. As mentioned before, the results of a case study cannot be generalized. If a more comprehensive study were to be made, it should include many more DIs and a fully transcribed dataset. This to be able to collect statistical material from the dataset. Method triangulation can also be applied, using think aloud protocols or semi-structured interviews, as Stone and Forestal did, before and after interpreting to catch the interpreters’ thoughts on language choice and interpreting strategies.

Even though one should be careful to conclude anything from a case study, I believe that the implications of the findings could be used in the future education of deaf interpreters. When using the linguistic traits of “foreigner talk”, the DIs make an assessment of the consumer’s linguistic needs. According to the communication accommodation theory, this assessment is made unconsciously. But the findings here and in the literature can help us make the assessment conscious, by making a list of assessment criteria to be used prior to an assignment. The linguistic traits can be taught and adjusted according to the assessment of the consumer and afterwards be put into strategic use in the interpretation. This structuring of the knowledge of consumer assessment and language modification will be beneficial for both interpreters and consumers.

## 6. CONCLUSION

Traits comparable to the traits of “foreigner talk” were found in the DIs’ target texts. These traits were:

- reduced signing rate,
- clearer articulation of signs and a clearer prosody,
- a simpler sentence and text structure,
- fewer pronouns (and instead increased use of constructed action) and - use of high frequency signs or shifts in concept level.

All these traits are also found in “foreigner talk”. The linguistic traits aim at lowering the cognitive complexity level of the text to ensure that the consumer understands the message in question.

Some points can be argued against the validity of the results, such as a general critique of the communication accommodation theory and the problems with applying results of a case study to a whole field. Further and more comprehensive research on the matter is desirable. However, several things in the literature on the subject and in communication theory and cognitive linguistics support the results. The assessment criteria and the linguistic traits that have come to light in this study can be formalised into a list or taxonomy. This taxonomy would be useful in the future education of deaf interpreters in order to make unconscious assessment conscious and ensure their strategic use.

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## APPENDIX - TRANSCRIPTION CONVENTIONS AND ABBREVIATIONS

I have transcribed manual signs with English glosses.

A hyphen (-) indicates a single sign with complex meaning (be-careful).

A circumflex (^) indicates a compound (office^chair).

A slash (/) is used to indicate boundaries.

A long underscore (\_\_\_\_) is used to mark holdings of signs. In these cases, two lines are needed to show simultaneous, distinct movements of the strong and the weak hand. The underscore shows the duration of the holding.

If the head movements are important for a specific transcription, the head movements are transcribed in their own line above the manual sign-lines.

A plus (+) indicates the addition of a separate morpheme to the root (blood+long).

Loci are indicated as spots in the signing space, ‘l’ and ‘r’ are hence points to the left and right of the signer in the signing space.

### Abbreviations:

Pm:	Polymorphemic sign, a sign containing several morphemes, transcribed by their approximate meanings.
cl:	Classifier. A hand shape used to express complex verbs.
CA:	Constructed action.
ah:	Active hand
wh:	Weak hand
+long:	an aspect marker, marking long duration or “in a slow manner”
det:	Determiner (a pointing sign)
+r:	referent to the right of the signer
+l:	referent to the left of the signer