Signs of the arctic: Typological aspects of Inuit Sign Language
Schuit, J.M.

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Inuit Sign Language, or in Inuktitut Inuit Uukturausingit (henceforth, IUR\textsuperscript{1}), is a language of the Inuit. The aim of this thesis is to document and describe this, as yet undescribed, sign language used by deaf Inuit, a language with only few users that is used in a vast area and sometimes extreme weather conditions. As suggested by the quote above, the social setting in which a language is used may have an impact on language structure. The quote is about Providence Island Sign Language (PISL), but other researchers have argued for similar influences, as evidenced by certain patterns they detected in the sign languages they documented (\textit{inter alia} Nyst 2007; Bauer 2012). For PISL, Washabaugh (1986) furthermore concludes that it is “in part, a highly marked “hypothesis” for survival in that extraordinary social situation” (p. xiii). The discussion in the following chapters will reveal that this conclusion can also be applied to IUR. As the circumstances under which the Inuit live are extremely harsh, for a long time, tight cooperation among the community members was the only way to survive. Hearing Inuit in contact with a deaf person therefore knew IUR, as efficient communication was a prerequisite for cooperation. Furthermore, being able to hear does not have any influence on a person’s hunting skills in the Arctic setting, and every hunter was needed for survival of the group (Rasing, in prep.).

As IUR is not being acquired as a native language by children anymore, and due to the increasing use of American Sign Language (ASL) at schools, it is a highly endangered language. MacDougall (2000) estimated that there were 47 deaf IUR users, but informal information gained within the current documentation project suggests a lower number. Based on conversations with members from different communities, I estimate that the number of monolingual IUR users is less than 40. Documenting and describing IUR is therefore of utmost importance, as it is also a means of preserving the language.

Beyond the description of this single sign language, an additional goal of this thesis is to contribute to the relatively young field of sign language typology. For this reason, structures found in IUR will be compared to those reported for other sign languages. The comparison will focus on terminology from several semantic fields as well as on certain morphosyntactic properties of verbs, as these two areas have been studied quite extensively for other typologically diverse sign languages. The data will contribute to general understanding of language typology in general, and of the differences among sign languages in particular.

In this introductory chapter, I will therefore first outline the relevance of sign language typology in section 1.1. In section 1.2, I will provide background information on the geographical area where the research was conducted as well as on the inhabitants, with a special focus on the deaf Inuit who are the informants for this study. The methodology of

\textsuperscript{1} Information about the coining and literal meaning of this term will be provided in section 1.2.3.
the study, that is, information about the informants and about the data collection and transcription will be detailed in section 1.3. In the final section of this chapter (1.4), the structure of this thesis will be outlined.

1.1. Sign languages and linguistic typology

In this section, I give an overview of different manual communication systems and sketch the development of the field of sign language typology (1.1.1). In section 1.1.2, I discuss the typological classification of languages, and I provide two examples in order to illustrate how typological classifications originally proposed for spoken languages can fruitfully be applied to sign languages.

1.1.1. Sign language types and typology

Different manual communication systems are attested around the world. Pfau (2012) provides an overview of different gestural communication systems and technical manual codes that hearing people use, for example, in situations that make oral communication difficult or impossible. None of these gestural systems is used by deaf people, however, and this is a feature they share with so-called secondary or alternate sign languages, that is, sign languages that arose in hearing communities for various reasons, and that exhibit lexical consistency and varying degrees of grammatical complexity. In this thesis, I will focus on sign languages used by deaf people, however, and will not pay much attention to other types of manual communication.

The fact that sign languages show interesting typological variation became evident when the research on sign languages expanded. ASL is the sign language that has received most attention from linguists to date. In fact, until quite recently, there were too few data from other sign languages to allow for sound cross-linguistic investigations on the variation between sign languages. Not surprisingly, the development of sign language typology has gone hand in hand with the expansion of the body of sign languages studied. Obviously, the more sign languages are investigated, the more typological studies can be carried out. In her “mosaic of sign language data”, summarised in Figure 1.1, Zeshan (2008) sketches how knowledge about different (types of) sign languages accumulated.
The building blocks of this mosaic represent the body of research conducted on different sign languages. Sign linguistic research started, as mentioned before, with work on ASL in the 1960s, soon followed by research on other urban sign languages in western (European) countries (such as British Sign Language (BSL), Swedish Sign Language (SSL), and Sign Language of the Netherlands (NGT)). Later, descriptions of non-western sign languages (e.g. Indopakistani Sign Language (IPSL), Brazilian Sign Language (LSB)) became available, thus creating more possibilities for cross-linguistic research. One phenomenon that was immediately obvious is the high degree of similarity among these sign languages. Meier (2002) suggests that sign languages are structurally more similar to each other than spoken languages (his ‘variation hypothesis’) as a result of the possibilities afforded by the manual-visual modality. In Figure 1.1, these sign languages are classified as ‘western and non-western urban sign languages’, using the label ‘urban’ to contrast them with ‘village sign languages’. The structures of urban sign languages show many of the similarities identified by Meier’s (2002) variation hypothesis.

However, once village sign languages were described, significant and intriguing differences emerged between their structure and that of urban sign languages. At this point, it is known that village sign languages form a heterogeneous group, but obviously the question remains which differences are still to be discovered. Note that Zeshan (2008) also included a box with a question mark in the figure, suggesting that other types of sign languages may yet have to be identified.

Village sign languages are languages that emerged naturally in village communities with a high incidence of (genetic) deafness. These villages have been referred to by various labels in the literature, such as ‘isolated deaf communities’ (Washabaugh 1979), ‘assimilating societies’ (Lane, Pillard & French 2000), ‘integrated communities’ (Woll & Ladd 2003), and more recently, ‘shared signing community’ (Kisch 2005). Similarly, the sign languages used in these communities have also received different labels, such as ‘indigenous sign language’ (Woodward 2003; Nonaka 2004), ‘shared sign language’ (Nyst 2012), and ‘rural sign language varieties’ (De Vos & Zeshan 2012). In this thesis, I will refer to the communities simply as ‘community’ or as ‘village community’, unless further specification is needed, and to the sign languages as a ‘village sign language’ or ‘rural sign language’, depending on the context. Note that all village sign languages are rural, but not...
all rural sign languages are village sign languages. In section 1.2.2, it will become clear that IUR is neither an urban nor a village sign language.

Nyst (2012) provides an overview of the sociocultural characteristics and linguistic features that village sign languages share. Many of the features that characterise these communities also hold for the Inuit community, and therefore, they will be described here. The linguistic features will be described in the appropriate chapters of this thesis. First of all, there is an unusually high percentage of deaf people in the village communities under consideration, and as a result, generally a large proportion of hearing people in the community know the local sign language (to some extent). Secondly, probably because of these two factors, there is no Deaf community as has been described for urban sign languages, in the sense that the deaf members of the community would constitute a separate group with its own cultural values and traditions. Thirdly, in general, in all these communities, the attitude towards deafness is not negative, and sign language is accepted as an appropriate means of communication. As a consequence, compared to urban sign languages, deaf people in these shared signing communities have more equal social status to hearing people, although there are not always entirely equal in all respects. Fourthly, because of the large proportion of signers (both deaf and hearing) in these communities, deaf (and hearing) children acquire the sign language from adults, while deaf children in urban societies rarely acquire sign language from adult language models. Rather, these children usually learn sign language somewhat later in life from their peers in a school for deaf children. The acquisition of village sign languages is therefore highly comparable to the acquisition typical of spoken languages. Finally, a sociocultural characteristic that is true for all village sign languages studied to date is the fact that the sign language is highly endangered, especially once the children start to go to school, where they are likely to come into contact with the national sign language. In fact, Nonaka (2007) argues that it is the hearing signers in these communities who are the keepers of the language, as they will not learn another sign language at school. This characteristic may not be true for Kata Kolok, which is used in the local school, where deaf children attend a class specifically for them (Marsaja 2008).

1.1.2. Sign languages and typological classification

According to Croft (2002), typology has three different goals, namely (i) typological classification on the basis of cross-linguistic comparison, (ii) typological generalisation that entails “the study of patterns that occur across languages” and the search for language universals (Croft 2002:1), and (iii) typological explanation. Croft’s (2002) first goal of typological classification of linguistic phenomena is the one that is most relevant for this thesis.

Typology can be defined as “the classification of languages or components of languages based on shared formal characteristics” (Whaley 1997:7). Typological classification is thus based on the grammatical variation found across languages. Obviously, data from a representative sample of languages is required in order to allow for reliable generalisations (Whaley 1997; Payne 1997). Based on such extensive representative spoken language
samples, different typologies concerning syntactic and morphological properties have been proposed.

Some of these typological classifications have been shown to also be applicable to sign languages. Sign languages differ, for instance, in the area of syntax (e.g. word order and negation strategies), in the availability of morphological operations (e.g. agreement, nominal plurals), and in phonological structure (e.g. handshape inventories and phonological constraints).

An extensive typological classification of sign languages, based on linguistic features, is not yet available. Zeshan (2004a, b), in her cross-linguistic studies on negation and interogatives, made an initial attempt in the direction of a sign language typology for these structures2. However, it is certainly worthwhile to also consider the classification of sign languages based on other linguistic aspects.

In this thesis, I will suggest some classifications based on morphosyntactic characteristics, such as verb agreement, and some classifications based on semantic aspects. Furthermore, I will argue that certain semantic typological classifications that have been proposed based on spoken language descriptions need to be re-evaluated in light of the sign language data.

In the following two sections, I discuss two areas of linguistic typology that are well established for spoken languages – word order and morphological typology – in order to illustrate how sign languages in general, and rural sign languages in particular, can add to the understanding of typological classifications. In the course of discussing these classifications, it becomes clear why they will not be dealt with in the remainder of this thesis. In later chapters, however, IUR will be typologically classified with respect to certain semantic fields as well as with respect to the realisation of negation and verb agreement.

1.1.2.1. Word order typology

A typological feature that has received much attention is word order, or basic constituent order, to be more precise. Word order may well be the most common property according to which a spoken language is typologically classified. Firstly, languages can be classified as to whether they have a flexible or fixed constituent order3 (Dryer 2007, 2011; Whaley 1997). However, languages with a fixed constituent order may also allow for other orders under specific (syntactic or pragmatic) circumstances. It is for this reason that the notion of

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2 Both types of structures investigated by Zeshan concern syntax. As for morphological/lexical typology, Padden (2010) suggests that in different sign languages nouns referring to the same object may be lexicalised in different ways, based on their iconic properties. The phonological form of nouns referring to objects held by hand (e.g. a toothbrush or a comb) can be motivated either by how the object is handled or by shape properties of the object (the instrument). Six sign languages showed a clear preference for either the handling or the instrument pattern, but the preference was not as strong in all languages (ranging from 60-85%).

3 Languages can also be partly flexible, for example, flexible at some level (e.g. clause level) but have strict order within some other domain (e.g. the noun phrase). Dryer (2011) found that 14% of the languages in his sample did not have a dominant word order.
basic word order is used. The most widespread order among languages is Subject-Object-Verb (SOV), which, according to Dryer (2011), characterises 41% of the 1377 languages in his sample. The next most common order is SVO (35%), followed in turn by VSO (7%). Languages in which the Object precedes the Subject (OVS/OSV/VOS) exist, but are extremely rare.

To determine basic word order in a language, linguists take into account which is the most frequent occurring word order, the one that is least marked, and the one that is pragmatically most neutral (Whaley 1997). Also, it has been proposed that there are correlations between basic word order and other structural properties (Greenberg 1963). When a language is of the SOV type, for instance, it is often found to have postpositions and the genitive modifier following the noun, while languages of the SVO type tend to have prepositions and genitives generally preceding the noun.

Some authors have proposed a basic word order for a number of sign languages. The available studies indicate that the two basic orders that are most frequently attested in spoken languages – SVO and SOV – are also the most frequent ones in sign languages. After some debate, ASL has been confirmed to have a basic SVO order (inter alia Fischer 1974; Liddell 1980; Neidle et al. 2000); the same has been argued for Hong Kong SL (Sze 2003) and LSB (Quadros 2003), amongst others. In contrast, NGT (Coerts 1994), German Sign Language (DGS; Glück & Pfau 1998), and Italian Sign Language (LIS; Cecchetto et al. 2006) have been described as being underlyingly SOV. The examples in (1) illustrate the basic word order of ASL (Liddell 1980:19) and NGT. It is interesting to note that the third most frequently occurring order in spoken languages, VSO, has not yet been documented for any sign language.

(1)  
   a. WOMAN FORGET PURSE  (SVO)  
      ‘The woman forgot the purse.’  
   b. STUDENT APPOINTMENT FORGET  (SOV)  
      ‘The student forgot the appointment.’

Also, for some village sign languages a basic word order has been identified. For Kata Kolok, a village sign language of Bali, Marsaja (2008) argues that the language has a basic SVO word order, while for Al-Sayyid Bedouin Sign Language (ABSL), a sign language used in a Bedouin community in the Negev desert (Israel), Sandler et al. (2005) suggest that the basic word order is SOV; this contrast is illustrated by the examples in (2).

(2)  
   a. PRO₂ TELL/TALK PRO₁  (SVO)  
      ‘You tell me.’ (Marsaja 2008:168)

\footnote{Note that Marsaja’s (2008:168) Indonesian glosses have been replaced by English glosses, based on his interlinear translation, for consistency. Originally, (2.a) is glossed CAI KATA ICANG.}
Since the 1970s and 1980s, the possibility of studying word order in sign languages has been debated in many publications, however. Brennan (1994) argues that the study of word order is a complex matter because sign language syntax is simultaneous, iconic, and often pragmatically organised. Establishing basic order is further complicated by the fact that alternative orders frequently occur as a result of operations such as, for example, topicalisation and pronoun copy. All of these word-order modifying operations have to be identified before a basic word order can be established (see Neidle et al. (2000) for discussion).

In addition, the criteria that have been established to determine basic word order in spoken languages are not easily applied to sign languages. The first criterion, the most frequent order of a verb, its subject, and its object, tends to be problematic in sign languages. For one thing, sentences with an overt subject and an overt object are quite rare in sign language discourse, as Nadeau (1993) points out for Langue des Signes Québécoise (LSQ). Her investigation of a discourse corpus of LSQ containing more than 1300 propositions revealed that only 11 sentences included both an overt subject and an overt object. To complicate matters, seven of these sentences had an SVO order and four SOV, making it impossible to determine a basic word order (Nadeau 1993). Similar observations have been made for other sign languages (Johnston et al. 2007).

Since determining the basic word order of a (sign) language requires a large amount of data, and since to date, no clear method that would also take into account modality-specific factors has been found, this topic will not be further examined in this study of IUR.

1.1.2.2. Morphological typology

Another property according to which spoken languages are commonly classified is their morphological typology, that is, the degree of synthesis (affixation) and fusion (Comrie 1989). A language which features almost exclusively monomorphemic words is called isolating, while a language with polymorphemic words is referred to as synthetic. An example of an isolating language is Papiamentu (Creole: Antilles), as is illustrated by the example in (3.a), which only contains monomorphemic words. On the other hand, if the morphemes within a word are easily segmented, and only one of them is lexical, the language is called agglutinative; if multiple meaning components may be fused within one morpheme, it is classified as fusional (Payne 1997; Whaley 1997). The example in (3.b) reveals that Turkish (Altaic: Turkey) is an example of an agglutinative language, as both morphologically complex words contain only one lexical stem. The extreme case of agglutination also allows for noun incorporation, that is, a word can contain several lexical stems. Inuktitut in (3.c) exemplifies this type of language, which is called polysynthetic. Finally, a fusional language also allows for morphologically complex words, but morphemes within a word cannot always be segmented. The final morpheme in (3.c), -
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*junga*, is an example of a fusional morpheme in that it denotes several meanings. Note that the word order type of a language does not appear to be related to its morphological typology.

(3)  a. Awor aki no tin mucho kos pa hasi

> Papiamentu
> Now here not have many things for do
> ‘There isn’t much to do now.’ (Kouwenberg & Murray 1994:42)

b. Ev- ler-im- iz- den gel- mi- yor- d- um

> Turkish
> house-PL-1.POSV-POS.R.PLZ-from come-NEG-PROGR-PST-1
> ‘I was not coming from our houses.’ (Lyovin 1997:17)

c. nasaq- liuq- jau- nngit-junga

> Inuktitut
> hat- make- PASS-NEG- PART.1SS
> ‘I am not being made a hat for.’ (Crano & Allen 1999:268)

Only a handful of researchers have attempted to classify a sign language with respect to its morphological typology. Signs are known to be of considerable morphological complexity but the fact that morphemes tend to be organised simultaneously rather than sequentially makes a typological classification less straightforward. Still, given the attested complexity, Bellugi and Klina (1982) suggest that ASL is similar to polysynthetic spoken languages. Schwager (2004) proposes an agglutinative analysis for Russian Sign Language based on the same arguments. Erlenkamp (2000), on the other hand, claims that the morphology of DGS is partly isolating and partly fusional, but does not give convincing arguments to support her claim (see Keller, Pfau & Steinbach (2002) for a critique).

Based on the study of several morphosyntactic inflections, I suggested that sign languages are agglutinative languages, as the morphemes in a sign are easily segmented, even though they usually have a phonomorphemic status (Schuit 2007). Simultaneity, however, is not to be confused with fusion. Consider the NGT examples in (4) (Pfau 2008a:189). Example (4.a) shows the citation form of the verb *GIVE*, which is articulated with a \(\overline{\epsilon}\)-hand executing a short forward movement. In the inflected form in (4.b), numerous phonological changes are observed, all of which are realised simultaneously: the beginning and end point of the movement change (thereby expressing agreement with subject and indirect object), the handshape changes in order to classify the direct object (e.g. *BOOK*), the sign becomes two-handed, and a non-manual morpheme (i.e. a facial expression) is added for adverbial modification. The sign thus consists of (at least) six morphemes.
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(4)  
   a.  
   b.  

\[ \text{GIVE} \]

\[ _2\text{GIVE}_1; \text{HC}_b \]

(e.g. ‘you give me a heavy book with some effort’)

Signs like these have been described for many urban sign languages, and all urban sign languages described until now can thus be analysed as the same morphological type, that is, as agglutinative languages. Differences can be identified, however, most specifically with respect to the extent to which sign languages make use of the spatial possibilities afforded by the manual-visual modality. This results, for example, in varying degrees of simultaneity. Village sign languages in particular generally allow for fewer simultaneous morphological operations, including non-manual morphology. Nyst (2007), for example, observes that Adamorobe Sign Language (AdaSL), a village sign language of Ghana, uses much less simultaneous morphology than NGT does. Also for Kata Kolok, De Vos (2012) points out that there is little simultaneous use of the signing space, although the signing space is used for many other linguistic aspects. Still, there is variety among village sign languages; I will return to this topic in Chapter 4.

Therefore, I proposed to add an index of simultaneity alongside Comrie’s (1989) indexes of fusion and synthesis (Schuit 2007). Crucially, this index of simultaneity is not only applicable to sign languages; spoken languages, and tone languages in particular, can also be typologically classified using this index. IUR for instance, can best be placed toward the non-simultaneous end of the continuum, although there is more simultaneity in the manual morphological operations than in AdaSL for instance. I will address this issue in more depth in Chapter 4. Most importantly though, the above discussion reveals that the traditional morphological typology, as established for spoken languages, can also be applied to sign languages.

1.2. The Inuit of Nunavut

The discussion in later chapters will reveal that Inuit culture has an important impact on several aspects of IUR that are addressed in this thesis, especially the semantic fields. The people and the environment in which they live is therefore described briefly.

Inuit people live spread across the circumpolar region, but at present, it is unknown whether IUR or a related sign language is used across the Arctic. Interestingly, a report by Joel Barish filmed in Greenland in 2008 (deafnation.com) shows a deaf Greenlandic hunter,
using a sign language similar to the one used by the IUR informants. However, as no information on this signer is available, no conclusions concerning the relatedness of these languages can be drawn. In future studies, it would certainly be very interesting to study and compare sign language varieties used in different areas of the Arctic. In this study, however, the area of focus is Nunavut, Canada’s Arctic territory.

Figure 1.2: Map of Canada’s provinces and territories, indicating the position of Nunavut.

Nunavut is Canada’s most recently established territory. It was officially separated from the Northwest Territories on April 1st, 1999. Its name comes from Inuktitut and means ‘our land’. Nunavut is also Canada’s largest territory (see Figure 1.2), encompassing about one fifth of Canada’s landmass, but at the same time its least populated with only about 32,000 inhabitants (Statistics Canada 2011). People live in communities spread throughout the territory (see Figure 1.3). IUR is used in many of these communities (MacDougall 2000), and is thus a small language used in an extremely widespread area.

Contact between communities occurs, but not on a regular basis because of the considerable distances involved. The distance between Rankin Inlet and Baker Lake, two of my fieldwork sites, for example, is about 300 kilometres. As there are no roads connecting the communities, travelling from one of these communities to the other takes a 45-minute flight, which, like all flights within Nunavut, is expensive. Historically, however, the Inuit lived a nomadic life moving across the Arctic. When they abandoned nomadic life and settled in communities from the 1950s onward, people from different regions ended up in one community. There was then a reduction of the extensive contact between people from different regions (Condon 1983; Creery 1993; Wachowich 1999). Face to face
contact among deaf people from different communities is also rare, and this may have led to lexical variation in IUR. It is possible that variation existed previous to settlement, but this cannot be checked.

![Figure 1.3: Map of Nunavut, with fieldwork locations indicated (adapted from Natural Resources Canada, 2008, available online).](image)

Across Canada, different sign languages are used; in the English speaking parts ASL, and in the French speaking parts LSQ. Some elderly deaf people in the Maritime Provinces (New Brunswick, Prince Edward Island, and Nova Scotia) still use Maritime Sign Language, a variety derived from BSL and now nearly extinct (Yoel 2009). None of these languages is related to Inuit Sign Language, however (for more information about Deaf Canadian culture, see Carbin & Smith (1996)).

IUR is in contact with the spoken language Inuktitut, and it is possibly influenced by it. A brief sketch of Inuktitut is thus given in the next section (1.2.1). In section 1.2.2, the situation of the deaf Inuit is described, and in the final section (1.2.3), previous research on IUR is introduced.
1.2.1. The spoken language of the Inuit

Languages that are in close contact commonly influence each other, and in the case of a spoken and a sign language, it is generally the case that the spoken language has more influence on the sign language than the other way round (*inter alia* Schermer 1990 for NGT). As this study will also be concerned with language contact, it is important to say a few words about Inuktitut, the surrounding spoken language. Inuktitut is a member of the Eskimo-Aleut language family. Languages from this family are spoken in the Arctic region from Alaska to Greenland. The Inuit language branch of this language family is known to have many dialects. Both Dorais (1990) and Harper (2003) describe four groups of dialects, the names of which also refer to the region in which the dialects are spoken: Alaskan Inupiaq, Western Canadian Inuktun, Eastern Canadian Inuktitut, and Greenlandic Kalaallisut. In Nunavut, two (out of three) dialects of Inuktun are spoken, the Inuinnaqtun and Natsilingmiut dialects, as well as four (out of six) dialects of Inuktitut: the Aivilik, Kivalliq, North Baffin, and South Baffin dialects. As the Nunavut Legislative Assembly recognises (Eastern Canadian) Inuktitut as a separate language with many dialects, the language will be referred to as ‘Inuktitut’ throughout this thesis. The mutual intelligibility among these dialects is high (Dorais 2010). Speakers are aware of the differences but report that they are able to communicate with people from different dialects rather easily.

Inuktitut is a highly polysynthetic language. As explained in section 1.1.2.2, a polysynthetic language allows for grammatical and lexical morphemes to attach to a lexical stem. In this respect, Inuktitut is structurally different from the spoken languages that surround previously described sign languages. In (5), two example sentences from Inuktitut are given. In (5.a), the lexical noun stem *illu* (‘house’) and its possessive affix *ga* (i.e. the locative argument) are attached to the lexical verb stem *no* (‘go’), which carries person and tense inflection. In (5.b), the noun stem *uvirniruq* (‘shirt’), which is a direct object, is attached to the verb stem *liu* (‘make’), which also takes other grammatical affixes. This phenomenon has been analysed as noun incorporation, a hallmark of polysynthetic languages (see Johns (2007) for a detailed analysis).

(5)  

a.  illu- ga- no- vunga  

   house- 1.POSV- go_to- 1S.INDIC  

   ‘I’m going to my house.’ (Johns 2007:552)

b.  Johnny  uvirniru- liu- laur- mat  

   Johnny  shirt- make- PST- INTR.CAUS.3S  

   ‘Johnny made a shirt.’ (Johns 2007:539)

However, as my knowledge of Inuktitut is minimal, I was not able to conduct extensive research on the influence of this polysynthetic language on IUR. The influences that I was able to identify, as well as the influences from the other languages with which IUR is in contact, will be addressed in section 5.3.3.
1.2.2. The situation of deaf Inuit

This section describes some general characteristics of deaf⁵ Inuit in Nunavut; in particular, information about the social situation.

Deaf individuals have been identified in many of Nunavut’s communities, and many of them use sign language. MacDougall found “little or no evidence of “social stigma” associated with deafness in the communities” and adds that “there was no apparent social exclusion because of deafness” (2000:13). Rather, deaf Inuit seem to be fully-fledged members of the different communities. Those deaf Inuit who use sign language are generally surrounded by an extensive network of family and friends who also use sign language. Some deaf people use ASL or Manually Coded English (MCE), while others use IUR. Also, some deaf Inuit are bilingual in ASL/MCE and IUR. The use of ASL/MCE on the one hand versus IUR on the other depends on the fact whether a deaf person followed formal education. Those born in the 1960s and 1970s were mostly sent to boarding schools in southern Canada, where English and ASL/MCE were used in teaching. Deaf people who attended boarding school only briefly, or not at all, use IUR. The language is thus used in several communities across the vast area of Nunavut.

Nowadays, deaf children can stay in their home community and attend school there. If English is the language of instruction, the school employs a qualified ASL interpreter to support the child. Part of the interpreter’s job is to teach ASL to the child’s hearing peers, as well as to offer after-school sign language classes to interested community members. If the school has an Inuktitut immersion program, however, an ASL interpreter cannot be employed, as there are no Inuktitut speaking ASL interpreters. In this case, local people are trained as support workers. They receive training in ASL and help the deaf child in her/his classes by using ASL as well as IUR signs. As is the case for qualified interpreters, the support workers also offer sign language classes to the deaf child’s peers and other community members (Kivalliq School Operations, p.c.). This means that no deaf children acquire IUR as their first language. Furthermore, only a few hearing (grand)children of deaf IUR users acquire some IUR. One informant told me that he thought IUR was too complicated for the young brains, although grandchildren of another informant used IUR with their grandfather on many occasions. However, the need to use IUR disappears as soon as the deaf relative is not around.

1.2.3. Previous research on IUR

At present, it is not known how old IUR is. In 1930, Captain Thierry Mallet wrote his memories of his time in the Arctic. In one of his stories, he mentions seeing a couple of deaf little girls who “make funny little motions with their hands at one another” (Mallet 1930:14). This may well be the first mention of signs among the Inuit. It is expected that

⁵The term ‘deaf’ usually refers to the audiological condition of not being able to hear, as opposed to ‘Deaf’ referring to Deaf people as a cultural and linguistic minority. As deaf Inuit are fully integrated in Inuit society, it is doubtful whether they should be regarded as a cultural minority. Therefore, the term ‘deaf’ is used, simply as a referential term, and not because the medical viewpoint on deafness is adopted.
IUR has been used among the Inuit since (at least) the early twentieth century, but it might well be older. One reason for this assumption is that Inuit knowledge has traditionally been transferred orally from generation to generation. Aporta (2009:145) points out that “oral history should not be a priori dismissed as unreliable and inaccurate”. IUR thus may have been used in Inuit culture for centuries, but there is no way of confirming this hypothesis.

MacDougall (2000) suggests that the origins of IUR may parallel those described for other native sign languages, such as Plains Indian Sign Language (Davis 2010). A comparison between IUR and Plains Indian Sign Language may indeed be tempting, since a couple of similarities can be identified between the people from the Great Plains and the Inuit. First, the geographical spread of the people shows some parallels, as both peoples live in a vast area, in communities that are often miles apart. Second, the Inuit were traditionally nomadic hunter-gatherers (inter alia Wachowich 1999), just like the Indians. From other studies, it is known that at least some communication during hunting has been gestural, and it has been argued that such gestural communication may have been the origin of a sign language (Divale & Zipin 1977). Third, in both cases, the sign language may have developed as a lingua franca (e.g. for trade purposes), when people using mutually unintelligible spoken languages or dialects came in contact with each other (Farnell 1995).

However, the similarities end here. Crucially, Plains Indian SL is mainly used as an alternate sign language by hearing people (Davis 2010), while IUR is predominantly used by deaf people. Also, while in the past, hearing Inuit may have used IUR to communicate across dialect/language boundaries, and possibly also to trade with other peoples (cf. Olsthoorn (2010), who mentions some reports on gestural communication among Inuit and missionaries), nowadays, the only hearing people who use IUR are those in contact with a deaf Inuk. Since the incidence of deafness among the Inuit is rather high, it is likely that when deaf children were born, people began to use existing signs in everyday communication, too, and that eventually this evolved into a sign language.

It is estimated that the prevalence of deafness in Nunavut is 5.7/1000, a percentage which is almost six times higher than in southern Canada (Stamos-Destounis 1993; MacDougall 2000). Based on this figure and the overall population in 2000 of 27,039, MacDougall (2000) estimated that about 155 people in Nunavut are deaf. Not much is known about possible causes of deafness, although it is widely known that otitis media occurs often among Inuit. However, this need not cause hearing loss. Other possible causes include meningitis, maternal measles, and genetic causes (Martha Crago, p.c.), but I could not find studies which addressed such potential additional causes.

In order to determine the status of IUR, the Government of Nunavut set up a focus group in 2006, in which I also participated on invitation by Jamie MacDougall. Before the focus group met, government officials in cooperation with Inuktitut speakers tried to establish what the Inuktitut term for Inuit Sign Language should be. Someone reported having heard the term uukturaqtuq for people who use their hands when they speak. Consulting a dictionary, uukturaqtuq was translated as ‘someone far and voiceless using his/her arms/hands trying to convey a message’ (Ootoova et al. 2000); the same term also being used for measurements. The Director of Official Language of the Department for Culture, Language, Elders and Youth (p.c.) then suggested the term Inuit Uukturausingit to
refer to Inuit Sign Language. The literal translation of this complex term is ‘an established practice for measuring of the Inuit’\(^6\), which is rather different from the translation found in the Ootoova et al. (2000) dictionary. Most importantly however, this term was agreed upon by hearing Inuktitut speakers. Since it seems more appropriate to use an Inuktitut term for the sign language, *Inuit Uukturausingit* or the acronym IUR will be used throughout this thesis.

As a result of the focus group, a lexicology project was set up (Inuit Sign Language Lexicon Project), as well as a project aimed at documenting the oral history of Nunavut’s deaf. Both projects were headed by Jamie MacDougall. Teaching materials were developed, as well as a small dictionary with about 40 IUR and ASL signs used in Nunavut. Furthermore, in the Legislative Assembly, the Minister of Culture, Language, Elders and Youth (CLEY) recognised “the uniqueness and importance of Inuit Sign Language” (Nunavut Hansard, 16-09-2008, p.3). At present, MacDougall is still heading an ongoing project focused on the promotion and revitalisation of IUR, supported by the CLEY department. His research and work in the communities led to the recognition of IUR and its protection under Section 15 of the Canadian Charter of Rights and Freedom in 2013 (Nunatsiaq Online newspaper, 25-02-2013).

### 1.3. Methodology

In this section, I provide information on how the data for this thesis was gathered. Data collection was made more difficult by the fact that deaf IUR users live in many different communities across Nunavut, and it was also difficult to find out in which communities they live. The three communities I visited for data collection were chosen on the basis of the fact that I had met the IUR users during the focus group mentioned in section 1.2.4. These were the communities of Rankin Inlet, Baker Lake, and Taloyoak (see Figure 1.3). In the following sections, I provide details of the informants (section 1.3.1), on the methodologies used in the three communities (1.3.2), and on data transcription and analysis (1.3.3).

Research was carried out with permission from the Nunavut Research Institute (NRI), from which I obtained a multiyear research licence. Consent forms were drawn and approved by NRI, and the guidelines they suggested were taken into account. These included *Ethical Principles for the Conduct of Research in the North,* and *Negotiating Research Relationships with Inuit Communities.* Written consent forms were translated into IUR by the bilingual informants, and consent was signed on paper as well as on film.

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\(^6\) Glossing this term proved to be difficult. Janet McGrath (p.c.) explained the underlying structure of the term: *uuktuaq-* is a verb meaning ‘to measure/approximate’; derived *uukturaq-* is also a verb, referring to ‘the practice or procedure of measuring’; derived *uukturausiq* is a noun, meaning ‘an established practice/procedure/method/process for measuring/approximating’.
1.3.1. Participants

An overview of the participants’ characteristics is provided in Table 1.1. In Rankin Inlet, data were collected from two deaf men and one hearing woman. PU, who was born deaf, is in his early forties and is bilingual in IUR and ASL. He has hearing parents and three deaf and five hearing siblings. The language used in the family is a combination of ASL/MCE, fingerspelling, and some IUR with the parents. PU assisted in translating IUR in Rankin Inlet. He learned IUR from the age of 12 from YS, my second Rankin Inlet informant. Sadly, YS passed away in 2013 at the age of 70. He was a deaf man, who grew up with a deaf brother (deceased), about five hearing siblings (one brother is still alive), and hearing parents. He was probably deaf from birth. YS was monolingual in IUR, but as he and PU were friends for over 25 years, he had learned some fingerspelling and used some ASL signs. YS, like PU, was a skilled artist and worked in a ceramic workshop. The hearing informant SS, the wife of YS, was only able to take part in two recording sessions. Other family members, both of PU and YS, could not participate in this documentation project for various personal reasons. PU and YS mainly participated in the interview together, apart from two sessions where PU could not attend.

Table 1.1: Participants’ characteristics

<table>
<thead>
<tr>
<th>Location</th>
<th>Subject</th>
<th>Gender</th>
<th>Hearing status</th>
<th>Age</th>
<th>Deaf relatives?</th>
<th>Languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rankin Inlet</td>
<td>YS</td>
<td>male</td>
<td>deaf</td>
<td>late 60s</td>
<td>deaf brother</td>
<td>IUR</td>
</tr>
<tr>
<td></td>
<td>PU</td>
<td>male</td>
<td>deaf</td>
<td>early 40s</td>
<td>3 deaf siblings</td>
<td>IUR, ASL</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>female</td>
<td>hearing</td>
<td>late 50s</td>
<td>(deaf husband)</td>
<td>IUR, Inukt., Eng.</td>
</tr>
<tr>
<td>Baker Lake</td>
<td>BS</td>
<td>male</td>
<td>deaf</td>
<td>early 40s</td>
<td>---</td>
<td>IUR (Inukt., Eng.)</td>
</tr>
<tr>
<td></td>
<td>DK</td>
<td>male</td>
<td>hearing</td>
<td>early 40s</td>
<td>---</td>
<td>IUR, Inukt., Eng.</td>
</tr>
<tr>
<td>Taloyoak</td>
<td>JU</td>
<td>male</td>
<td>deaf</td>
<td>late 60s</td>
<td>---</td>
<td>IUR</td>
</tr>
<tr>
<td></td>
<td>MU</td>
<td>female</td>
<td>hearing</td>
<td>late 50s</td>
<td>(deaf husband)</td>
<td>IUR, Inukt., Eng.</td>
</tr>
</tbody>
</table>

In Baker Lake, the data were obtained from one deaf and one hearing man, both in their early forties. BS was deafened after a fall at the age of seven; he had acquired Inuktitut and English as first languages. From the age of seven he learned IUR, which is now his main means of communication. He does not use spoken or written Inuktitut or English. He has no deaf relatives. Since the early 2000s, BS has also learned some ASL, and continues to learn ASL signs from PU from Rankin Inlet on the rare occasions when they meet. Some IUR signs have now been replaced by their ASL counterparts. As BS has also acquired English and Inuktitut as a child, he frequently uses mouthings from both languages. DK is a hearing friend of BS, and has been using IUR with him since they were in their mid-teens.
DK also speaks Inuktitut and English, and he assisted in translating IUR in Baker Lake. BS and DK were always interviewed together, and DK functioned as interpreter during these sessions, too.

Three other deaf adults live in Baker Lake, and one deaf child, who is related to PU from Rankin Inlet. Allegedly, two of the adults use IUR, while the third one uses ASL. Although I met one of the women who uses IUR, and she was very friendly, she was too shy to participate in the project. Due to various reasons, I could not meet the other women.

The two Taloyoak informants are husband and wife. JU was born deaf, and is the only deaf member in his family. His wife, MU, is trilingual in IUR, Inuktitut, and English. Both JU and MU took part in the interviews, where MU interpreted from IUR to English, and back.

1.3.2. Data collection, transcription and analysis

Data for this thesis was collected during four fieldwork trips, the length of which was restricted mainly due to financial reasons. Travel to and within Nunavut is very expensive, and during the first two years, I spent the maximum amount of time in the communities. Only the 2012 trip was shorter because of the unavailability of the informants.

(i) March – April, 2009: seven weeks were spent in Rankin Inlet and one week in Baker Lake.
(ii) May – June of 2010: I spent three weeks in Rankin Inlet as well as three weeks in Baker Lake.
(iii) August 2010: I spent ten days in Taloyoak. Originally, I had planned to stay three weeks in Taloyoak adjacent to the previous visit to Baker Lake. This trip had to be cancelled due to personal reasons on the part of the informants, so an extra trip was planned in August 2010. Due to financial reasons, the stay in Taloyoak was shortened.
(iv) March 2012: two weeks were spent in Rankin Inlet. It was not possible to visit the informants in Baker Lake and Taloyoak during this visit.

During the first two visits to Rankin Inlet, data recording was done in the large kitchen of Kivalliq Hall, a campus building of Nunavut Arctic College. In 2012, the recording sessions took place in the dining room of the Bed and Breakfast where I was staying. In Baker Lake, recording took place either in the home of the informants or in the apartment where I was staying. In Taloyoak, the recordings were made in the home of JU and MU. I was present during all recording sessions in each community.

Since different amounts of time were spent in the three communities, the amount of data gathered also differs per fieldwork site. In Table 1.2, an overview is given of the different types of data (explained below) together with the amount of data (hours:minutes) recorded per community.
Video files in 2009 were first converted to MPEG-2 files, which proved to be somewhat problematic in use with the ELAN program\(^7\). Even though the ELAN program had problems with the MPEG-2 files, I was still able to annotate some files, either in the program or using a text editor. A year later, the films were converted again with iMovie, to M4V video files, with which the ELAN program had no difficulties. The existing ELAN files were re-aligned with the new video files, and new files were created based on the annotations in text format. Not all video files were annotated.

During the fieldwork trips, over sixteen and a half hours of material were recorded. This includes the translations and additional information of PU in Rankin Inlet in 2009, and of DK in Baker Lake in 2009 and 2010, as well as those of MU in Taloyoak in 2010. About six and a half hours of video material have been roughly translated, of which two have been fully annotated in ELAN. This includes data from all three communities, and it includes most of the elicitation tasks. Translating more of the data was impossible due to the restricted time spent in the communities.

<table>
<thead>
<tr>
<th>Data type</th>
<th>Rankin Inlet (YS, PU &amp; SS)</th>
<th>Baker Lake (BS &amp; DK)</th>
<th>Taloyoak (JU &amp; MU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spontaneous conversation</td>
<td>8:23 (YS &amp; PU)</td>
<td>2:55</td>
<td>0:47</td>
</tr>
<tr>
<td></td>
<td>2:00 (YS, PU &amp; SS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1:27 (YS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nunavut Travel Picture Task</td>
<td>0:13</td>
<td>0:03</td>
<td>--</td>
</tr>
<tr>
<td>Volterra Picture Task</td>
<td>Not analysable (0:04)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Zwitserlood Picture Task</td>
<td>Not analysable (0:27)</td>
<td>Not analysable (0:10)</td>
<td>--</td>
</tr>
<tr>
<td>Canary Row Task</td>
<td>0:06</td>
<td>0:08</td>
<td>--</td>
</tr>
<tr>
<td>Charlie Chaplin Task</td>
<td>Not analysable</td>
<td>0:07</td>
<td>--</td>
</tr>
<tr>
<td>Give-Take Task</td>
<td>0:05</td>
<td>0:07</td>
<td>--</td>
</tr>
<tr>
<td>Maus Task</td>
<td>--</td>
<td>Not analysable (0:06)</td>
<td>--</td>
</tr>
<tr>
<td>Colour Elicitation Task</td>
<td>0:05</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Kinship Elicitation Task</td>
<td>0:05</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Time Terms Elicitation Task</td>
<td>0:05 (PU only)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Numbers Elicitation Task</td>
<td>0:05 (PU only)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Total: 16:41</td>
<td>12:34</td>
<td>3:20</td>
<td>0:47</td>
</tr>
</tbody>
</table>

\(^7\) ELAN is a software program that allows annotations to be time aligned with video files. It is freely available via the website of the Max Planck Institute for Psycholinguistics (tla.mpi.nl/tla-tools/elan/), and is defined as “a professional tool for the creation of complex annotations on video and audio resources.”
In the following, I first provide some information on the data from spontaneous conversations, before turning to the various elicitation tasks that were used for data collection in Rankin Inlet and Baker Lake. Some tasks were adopted that had been used by Zwitserlood, Perniss and Özyürek for their research on German, Dutch and Turkish Sign Languages. One of the aims of using these tasks was to create a possibility for cross-linguistic comparison. The informants in the two communities, however, treated the tasks differently, and also not always as intended. I describe each task and its aim in turn, and, where necessary, also point out challenges and problems encountered during the execution of certain tasks. Using these tasks, it soon became clear that retelling a video clip or describing a picture were tasks not familiar to the informants. A reason might be the differences in narrative traditions between Europeans and Inuit (Rasing, in prep.). Unfortunately, most of these data therefore turned out not to be useful for cross-linguistic analysis. For each type of data, I provide transcription and analysis details.

**Spontaneous conversation**

Most data were obtained in unstructured interview settings. I usually asked some general questions about Inuit culture. This encouraged the informants to narrate stories about past and present events and life in general. In 2009 in Rankin Inlet, the monolingual informant YS was dominant in the conversation compared to PU, who mainly functioned as interpreter during those sessions. In the two sessions where SS joined the interview, all three informants contributed to the conversation equally. During two sessions, PU could not attend, and I interviewed YS in IUR as best as I could. In 2010 and 2012, PU and YS had equal roles during the interviews. In Baker Lake and Taloyoak, both informants contributed equally to the interview. DK and MU respectively also contributed general information in English during those interviews.

The translation procedure differed between communities. In 2009, I first started learning ASL/MCE from the bilingual deaf informant PU, so he could interpret what the monolingual informant YS signed in IUR. During the interviews, YS paused regularly allowing PU to translate what he signed. When I did not understand the ASL/MCE signs PU used in the translation, he would fingerspell the meaning of an IUR sign in English. Note that he is a skilled fingerspeller, since this is often used in his family. Not only did PU interpret from IUR to ASL/MCE, often he also added information about Inuit culture. These translations and explanations were also recorded on video, after which I translated them to English. A year later, this translation was no longer necessary, as I understood most of the IUR stories of YS. Furthermore, all recorded IUR data was watched together with PU a couple of days after the recording session, allowing me to clarify any potential uncertainties about the data. This happened without YS present.

In order to find out whether the IUR used among PU and YS differed from their normal conversations because of my presence, I sometimes left the interview session for a few minutes. Leaving for longer periods of time would have been inappropriate, as PU and YS visited me in my residence in Rankin Inlet. During these short absences, the camera was still recording with their consent. It soon became clear that my presence had no influence on their use of IUR, and no specific influence of ASL/MCE was detected either.
In Baker Lake, the bilingual hearing informant DK translated what informant BS signed into English for me during both fieldwork trips. The translation was necessary, as I did not understand all of the IUR of BS. This was partly due to the high amount of Inuktitut mouthings, and partly due to the fact that my first visit in 2009 had been rather short. Because of that, I was not so familiar with the variety of IUR BS uses. Some of the video clips were watched together with DK a few days after the recording, to clarify any further uncertainties for me. However, DK was not able to watch all video recordings in detail.

During each visit in Rankin Inlet and Baker Lake, some discussion took place about the (un)grammaticality of certain IUR utterances. Such discussions were not structurally conducted, but rather on the spot, whenever I had questions about certain constructions. In the remainder of this thesis, when the impossibility of a construction is discussed, this is based on the judgement of the informants. I acknowledge that conclusions based on their judgements may not be fully reliable, but in general, they were very confident judging a construction.

In Taloyoak, the interview with MU was conducted in English, and MU translated some questions into IUR for JU, so that he was able to participate in the interview. However, I had not taken into account that questions that were intended for JU could be answered by MU, his wife, and this is indeed what frequently happened. Most of the IUR data from MU consists of translating my questions, apart from some instances where we engaged in a conversation in IUR with the three of us. Because of the short period spent in Taloyoak, not much data was recorded, but enough to be taken into account for some chapters of this thesis.

**Nunavut Travel Picture Task**

The informants were given pictures cut out of a Nunavut travel guide, and were asked to describe them. Some examples can be found in Figure 1.4. The primary aim of the task was to elicit lexical signs for the animals and objects in the pictures. Second, I hoped to familiarise the informants with describing pictures, using familiar scenes, before turning to the other tasks.

In Baker Lake, the task was understood as intended and thus yielded an interesting list of lexical signs. In contrast, in Rankin Inlet, the informants told a short story about the pictures. This led to interesting semi-spontaneous data and was analysed as such.

![Figure 1.4: Pictures from the Nunavut Travel Picture Task (left: caribou; right: beluga whale).](image-url)
Volterra et al. Picture Task
This is the picture task developed by Volterra et al. (1984), aimed at eliciting word order. The signer sees two pictures, one of which is accompanied by a small arrow. The signer is expected to sign what is shown in this picture to the addressee, who then should select the appropriate one from his pair of pictures (without arrow) (see Figure 1.5 for some examples from the task). To test whether this task would work for the IUR informants, a pilot study including six picture pairs was carried out (pictures number 13 – 18).

In Rankin Inlet, YS (the signer) did not seem to fully understand the goal of the task, probably because the setting was unfamiliar to him. PU (the interpreter and addressee) explained the task twice, but even after that, YS’s descriptions of the pictures remained somewhat vague. Because of this, PU sometimes got the answer right, while at other times he did not. The data from this pilot study indicated that this task would better not be used to analyse word order in IUR. This task was therefore not conducted in Baker Lake, and the pilot study was not included in the analysis.

Zwitserlood Picture Task
The picture task developed by Inge Zwitserlood is meant to elicit expressions of motion and location in signing space. The signer sees one picture, while the addressee sees a matching one, plus three other, slightly different, pictures. The signer is asked to describe in detail the scene shown in his picture, whereas the addressee then should select the appropriate matching one from his set of four pictures. In Figure 1.6, the target picture is the boy pushing the boy, and the non-target the boy pushing the table.

In Rankin Inlet, the signer (YS) gave minimal information, probably because he did not know which options the addressee (PU) had to choose from. Also, as the signer kept his left hand in the folder that contained the pictures, in order not to let it close, this data was not useful for the intended goal (i.e. to elicit expressions of motion and location in signing space), and has therefore not been analysed.

In Baker Lake, the addressee (DK) asked clarifying questions regarding the pictures, leading him to understand all the picture-descriptions correctly. Due to circumstances, this task could not be included in the analysis, however.
Canary Row Task
A set of six clips from cartoon films with the characters Tweety Bird and Sylvester the Cat was used to elicit expressions of space and motion. These clips were created by Sotaro Kita at the Max Planck Institute for Psycholinguistics in Nijmegen, and have been used in other sign language studies (*inter alia* Nyst 2007; Zwitserlood, Özyürek & Perniss 2008; Emmorey et al. 2008). Since there are two characters (or three when Granny also appears in the clip), it was expected that the different characters would be represented in the story. It then would be interesting to see how IUR dealt with a shift in character perspective. As in other studies, the idea was that the signer watches the clip, then relates the story to the addressee, after which the addressee recounts the story to show his understanding.

In Rankin Inlet, both informants switched between roles of being the signer and the addressee. However, the addressee never recounted the story, possibly because the instructions had not been clear enough, due to my unfamiliarity with ASL/MCE at the time of conducting the task. Another reason might be the different narrative tradition of the Inuit people (McGrath 1984). Also, the signer watched the clip, and at the same time related what he saw, instead of memorising the information. This may have been due to the length of the clips (30-70 seconds), or to unclear instructions. As it did not seem to be crucial whether the signers memorised the clips or not, I considered the data useful for the analysis of classifiers (section 4.2.3).

In Baker Lake, the signer (BS) summarised the story after he had seen it, and the addressee (DK) recounted his understanding of the information from BS in English. These data have been included in the analysis of classifiers as well.

Charlie Chaplin Task
Three short video clips starring Charlie Chaplin were also used as elicitation data. They were used to elicit the expression of space and motion, and the different perspectives of the actors. The clips are of rather poor quality, which made it difficult for YS to grasp the content, also because he suffered from a temporary problem with his vision. The task was therefore not completed in Rankin Inlet.

In Baker Lake, BS watched the clips, but did not seem to fully understand all three clips. He described the clip about two people and a noose clearly, which provided useful information. These data are used in the section about classifiers in section 4.2.3.
**INTRODUCTION**

*Give-Take Task*

Zwitserlood, Perniss and Özyürek also developed a task to elicit sentences with the verbs *give* and *take*. This task focuses on verb agreement, classifier agreement, and on word order. The signer watches a very short video clip in which three people are seen. One of them gives or takes an object from one of the others. The object may be a red or a white light bulb, a notebook, or a rose. The addressee has two pictures in front of him (see Figure 1.7 for an example), and he has to pick the one corresponding to what the signer relates about the video clip. In total, sixteen clips are shown.

In Rankin Inlet, this task posed some difficulties. YS watched the clips, and PU acted as the addressee choosing between the two pictures. YS thought that the white light bulb was an ice cream cone, and the red one a cup. As for the resulting grammatical construction, these misunderstandings did not really matter, as both wrongly perceived referents were coded in a classifier construction accordingly (see section 4.2). Furthermore, out of the sixteen clips, six resulted in an incorrect choice of the picture by the addressee. Analysis of the incorrect choices showed that in some cases, the addressee misunderstood the signer, and that in other cases, the signer was unclear. Only the assignments that were answered correctly were taken into account, as it was unclear how to analyse the incorrect answers.

In Baker Lake, BS watched the clips and DK choose between the pictures. On some occasions, DK asked clarifying question which BS answered. Because of this clarification, all sixteen were answered correctly, and all were included in the analysis in section 4.2.

![Figure 1.7: An addressee-sheet from the Give-Take Task.](image)

**Maus Task**

Several video clips from *Die Sendung mit der Maus*, a German TV cartoon show for children, were shown to the informants of Baker Lake. These clips feature a mouse and an elephant, the mouse being bigger than the elephant. The mouse is personified, and walks on two legs, while the elephant walks on four legs. No verbal conversation takes place between the two characters; only some gestures and facial expressions are used to communicate. This task was not carried out in Rankin Inlet, as the informants showed little enthusiasm for a task where they had to look at children’s stories.

In Baker Lake, BS indicated that he liked watching cartoons. He watched the stories and told (parts of) the content to DK. DK asked clarifying questions, as the information BS
provided was not detailed enough to understand what happened. It appeared that retelling these children’s stories was a task that BS perceived as too childish, and the data was therefore also excluded from the analysis.

**Colour Elicitation Task**

A colour elicitation task with colour chips was recorded in Rankin Inlet. The colour chips were samples of typical colours cut out of a magazine in order to elicit colour names and see if a more extensive task would be needed. The latter was not the case. Both YS and PU completed the CET, and the data was included in the analysis regarding IUR colours (cf. section 3.2.4). In Baker Lake, this task was not carried out.

**Kinship Elicitation Task**

Kinship terms were elicited with the aid of a family tree that I drew on the spot and complemented with clarifying information. The informants in Rankin Inlet had no trouble understanding the task and provided the appropriate kinship terminology that was needed for the kinship analysis (cf. section 3.1.4). This task was not carried out in Baker Lake, since DK explained to me that BS used the sign FRIEND with English mouthing to describe different family members.

**Time terms Elicitation Task**

In Rankin Inlet, I asked PU to provide some lexical time expressions in IUR. He signed the months of the year, all of which are based on festivities in the respective month (cf. section 3.3.4.1). This task was not carried out in Baker Lake due to time restrictions.

**Number Elicitation Task**

During the same interview as the TET, I asked PU to teach me the numbers in IUR, and he counted to 20, followed by the multiples of 10 up to 100. I also asked to be taught the numbers in ASL, to see whether he would use the same numbers, which he did not. The numbers often appeared in spontaneous data, and both were used in the analysis of IUR numbers (cf. section 3.4.4).

### 1.4. Outline and purpose of this book

Data analysis revealed typologically interesting patterns. For the reader, however, it is important to keep in mind that some of the generalisations and patterns that I will describe are based on a rather small data set. I hope that future studies will help in confirming or disconfirming these patterns. I will refrain from repeating this caveat in the context of each aspect in the following chapters.

In Chapter 2, I will describe selected aspects of IUR grammar; specifically some phonological parameters (handshape, location, non-manual markers), nominal plurality, and negation, as (i) these aspects are interesting from a typological point of view and (ii) the data contained sufficient information to address these issues.
Chapter 3 deals with some semantic fields in IUR. I selected kinship, colour, time and numbers because these fields have been previously studied for other sign languages. Furthermore, a large sign language typological study is currently in progress at the iSLanDS Centre at the University of Central Lancashire (International Institute for Sign Languages and Deaf Studies). They collect data from many sign languages of the world, either by fieldwork or by using their extensive network of researchers across the globe. The data in Chapter 3 will contribute to their cross-linguistic typological study of kinship, colour, and numbers.

Chapter 4 addresses predicates in IUR, focusing on verb agreement and classifiers and providing both quantitative and qualitative analyses. The IUR data will be compared to verb agreement and classifiers in other sign languages.

In Chapter 5, I describe external factors that may influence the structure of a language. Both geographic and demographic influences on languages, and on IUR in particular, will be discussed, followed by observations on borrowing as a result from the language contact situation.

The final chapter will highlight the contribution of this thesis to the field of sign language typology by putting IUR in typological perspective. I will also share methodological considerations resulting from this project, as well as some thoughts regarding further studies, both on IUR and other sign languages.