Jordanian sign language: aspects of grammar from a cross-linguistic perspective
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Chapter 8: Conclusion

The main aim of this dissertation is to describe different aspects of the grammar of LIU from a cross-linguistic perspective in order to add to our understanding of the differences and similarities that can be found in the grammar of unrelated sign languages. In Chapter 3, I started by giving a brief overview of the grammar of LIU. Subsequently, in Chapters 4 to 7, I focused on the description and cross-linguistic comparison of four selected aspects of the grammar of LIU. The first two subjects, namely negation and possession (Chapters 4 and 5) can be located at the morphology-syntax interface, whereas the last two subjects, namely manual simultaneity and the use of perspective (Chapters 6 and 7), are more pragmatic in nature, focusing in particular on narrative discourse. Hence, the selection of topics makes a comparison on different grammatical levels possible. However, because very little typological research has been done into sign languages, the LIU material could only be compared with data from a limited number of other sign languages. Moreover, the choice of topics was to some extent constrained by the availability of cross-linguistic material. In the areas of negation and possession, I was able to profit from available typological studies (Zeshan 2004, 2006a; Perniss and Zeshan, forthcoming), but similar cross-linguistic investigations were not available for the more discourse-oriented topics. In Chapters 6 and 7, therefore, LIU data has been compared mainly to that of sign languages for which the respective topics have been described in depth. This obviously limits the ability to make cross-linguistic generalizations in these domains, but since typological research into sign languages is still in its infancy, this is often the case. In particular, I would have liked to include more data on village sign languages, since the little research that has been done into the grammar of village sign languages suggests that sign languages of small closed communities may be quite different grammatically compared to ‘urban’ or national sign languages, such as LIU. However, due to the limited information available, such generalizations can only be tentative.

Below, I give an overview of three different aspects of LIU grammar, namely the use of space (Section 8.1), non-manuals (Section 8.2), and the use of simultaneity (Section 8.3), focusing on the main similarities and differences between LIU and other sign languages. On the basis of these comparisons, I make an attempt to draw conclusions about the way in which grammatical features relate to language age (Section 8.4). This chapter is concluded by a number of suggestions for further research (Section 8.5).
8.1 Use of space

With regard to the use of space, LIU does not differ from other urban sign languages in the most basic aspects. As in most other sign languages described to date, the signing space is used to localize discourse participants and objects by means of indexing, classifiers and agreement verbs. As explained in Chapter 3.3, verbs associated with a localized noun may be directed towards the locus of the noun to create complex spatial lay-outs in LIU. Similarly, as shown in Chapter 5, the possessive/emphatic pronoun SELF can be directed towards loci in the signing space. On the phonological level, too, agreement verbs in LIU are similar to those described for other sign languages (cf. Section 3.3.1). In general, these verbs move from source to goal location, while the palm of the hand faces the object and the back of the hand faces the subject (Meir 1998, 2002). The classifier system of LIU also functions in a way similar to that described for most other sign languages (cf. Section 3.3.2), and includes entity and handling classifiers, as well as referent projections or body classifiers (Supalla 1986; Schick 1990; Zwitserlood 2003; Emmorey 2003). In fact, these aspects of sign language grammar seem to be more or less universal, at least among urban sign languages. However, as shown in Chapter 7, in the area of perspective there are significant differences in the use of space between LIU and many other sign languages for which descriptions are available.

One of the differences between LIU and many Western sign languages is that localization of referents in LIU is much less explicit than in Western sign languages such as ASL and DSL (Liddell 1990; Engberg-Pedersen 1993). First of all, in LIU localization by means of indexing is infrequent and body-shifts are hardly used by most signers. Also, agreement verbs tend to be produced only on the sagittal axis away from or towards the signer, while third person to third person agreement on a lateral axis in front of the signer is rare. I have argued that this pattern is related to the fact that, whereas in many Western sign languages referents are introduced in narrator perspective using indexical points, LIU tends to use character perspective for the introduction of referents and only makes infrequent use of explicit localization when referents are introduced. Instead, changes in perspective are introduced lexically, using a noun describing the referent whose perspective the signer takes on. This lexical marking of perspective changes also takes the place of body-shift, which is rare in LIU. Although referents are localized in the signing space, this localization often appears to be ad hoc and is not used consistently throughout a stretch of discourse. This lack of consistency may be related to the way perspective changes are expressed. The LIU strategy of lexically introducing character perspective reduces the

Since most in-depth descriptions of narrative discourse have been based on Western sign languages, it has long been assumed that sign languages are very similar in their use of space and the way in which they express perspective. The analysis of non-Western sign languages such as LIU, however, shows that there is more variety between sign languages in this area than has often been assumed.

8.2 Non-manuals

LIU, like other sign languages, makes extensive use of non-manuals for both linguistic and non-linguistic, affective, purposes. While mouthing of spoken Jordanian Arabic words may be very common with certain LIU signs, such as the negative existential (cf. Chapter 3.1.2, Chapter 4.3.1 and Chapter 5.4.2.1), it is also clear that it is subject to situational variation. In particular, mouthing is more common when Deaf signers communicate with hearing signers than when they communicate with other Deaf. As in other sign languages, non-manuals are used in LIU to convey both morphological and syntactic information (cf. Chapter 3.5). Yes/no questions, for instance, are distinguished from declaratives mainly by non-manuals, such as facial expression and head-tilt, as is common in sign languages (Zeshan 2006a). Other non-manuals may also accompany negative sentences and possessive constructions. For example, in LIU possessive structures with the sign EXIST are often accompanied by a slight headnod, and in informal signing, particularly in question-answer sequences, the manual sign can be dropped (Chapter 5.4.2.1). As a consequence, in these cases, the headnod is the only element indicating possessive meaning. However, constructions in which the manual sign is dropped are uncommon in narratives. Similarly, although in informal signing negative responses to a question may consist of only a headshake or a backward head-tilt, a manual negator appears to be required in narratives (cf. Chapter 4.4). In LIU narrative discourse, non-manuals do not normally occur as the sole marker of negation, although this is common in many other sign languages. Based on this pattern I have argued that, at least in the area of negation, LIU is a manual dominant sign language. In sign languages of this type non-manual negative markers are optional and manual negative markers are obligatory (cf. also Geraci (2005) for LIS). There is no apparent reason for this cross-linguistically uncommon pattern. Possibly there is influence here from the hearing culture: a negative headshake, which appears to be the most common non-manual means for expressing negation in sign languages cross-linguistically, is a less common
gesture in Jordan than in most Western countries. Instead, the backward head-tilt, accompanied by an eyebrow-raise and a tongue-click, is most often used in Middle East cultures as a negative gesture. Unlike some other sign languages in the region, however, LIU does not appear to have fully integrated this culture-specific gesture into its grammar; the backward head-tilt is not a common way of negating a sentence in LIU. It would be interesting to have more cross-linguistic sign language data from different countries in which this backward head-tilt is used culturally, to find out to what extent this gesture is integrated into the grammar of local sign languages. Such a cross-linguistic comparison could lead to interesting findings about the integration of cultural gestures into sign language grammar, that is, about the grammaticalization of gestures.

8.3 Simultaneity

The fact that sign languages make use of more than one articulator, that is, both hands as well as non-manual features, allows them to use more than one articulator simultaneously. The simultaneous occurrence of manual signs with non-manual markers is very common in all known sign languages and LIU is no exception in this respect, as shown in Section 8.2. The use of the two manual articulators simultaneously, however, is restricted by articulatory constraints. In LIU, just like in other sign languages described to date, two phonological rules constrain the form of two-handed signs: the Dominance Condition and the Symmetry Condition (cf. Chapter 3.1.1 and Chapter 6.4). These rules were first formulated by Battison (1978) for ASL and seem to hold universally for simple (non-compound) signs. In addition, Battison’s Symmetry Condition governs the production of two-handed compound signs in LIU as far as movement is concerned. In fact, I have shown in Chapter 6 that an extension of the Symmetry Condition, which only focuses on movement, restricts any form of manual simultaneity in LIU.

A striking feature about LIU narratives is the frequent use of manual simultaneity and dominance reversals, at least in younger signers, who have provided most of the data used in this dissertation. The fact that these characteristics are less frequent among older signers indicates that LIU is changing and developing in this area. The occurrence of manual simultaneity in LIU is not exceptional. After all, manual simultaneity, which occurs frequently in constructions with entity classifiers, numerals and indexes, has been described for several sign languages (e.g. Engberg-Pedersen (1994) on DSL; Miller (1994) on LSQ; Vermeerbergen (2001) on VGT). Although some researchers have made a distinction between full simultaneity and perseverations, I have proposed one phonological rule for LIU that restricts
simultaneity and determines whether both hands can move at the same time. This rule makes the distinction between full simultaneity and perseverations superfluous on the phonological level. I believe that this rule is not unique to LIU and that it may well turn out to be a universal rule for sign languages, although such an adaptation may require a reanalysis of certain examples of full simultaneity discussed in the literature.

In the area of manual simultaneity, differences between LIU and other sign languages described to date are found in the apparent freedom LIU has when it comes to combining signs on the dominant and non-dominant hand, sometimes leading to complex constructions with multiple dominance reversals. The function of these complex simultaneous constructions is not always clear, although I have suggested that in some cases they may aid the addressee in understanding the syntactic structure of complex phrases. Also, certain constructions that are reportedly not found in ASL, such as the simultaneous production of a possessive pronoun with a lexical sign (Liddell 2003), are common in LIU.

Taken together, these facts suggest the following conclusion: although the phonological rule I proposed, which restricts the movement of the two hands in simultaneous constructions, may be universal, manual simultaneous constructions are also subject to language-specific constraints. Manual simultaneous constructions in LIU may have much in common with those in other sign languages in both form and function, but they are used more frequently and appear less restricted than in other sign languages described to date.

8.4 General conclusions: sign language grammar and the language age issue

Overall, sign languages around the world are grammatically more similar to each other than spoken languages although recent in-depth research into non-Western sign languages, and especially into village sign languages, shows that there are also significant differences (cf. Perniss, Pfau and Steinbach (2007) for an overview). LIU, as an example of a non-Western sign language, neatly illustrates both the fact that sign languages are grammatically similar, and the fact that there are differences within the similarities. Some of the most striking similarities between sign languages are caused by the visual modality in which they operate (Meier 2002). Functional elements such as (spatial) adpositions, which in spoken languages can be expressed in many different ways, tend to be absent in sign languages because the meanings they convey can be expressed in a more iconic way, that is, more directly, in the visual modality than in the aural-oral modality.
Other similarities between the grammars of unrelated sign languages are less easily attributed to modality effects. An example is the fact that most sign languages have similar forms for possessives and existentials. Although this is also common in spoken languages of different ages, it is striking that this is a feature that occurs in almost all sign languages described thus far. Possibly, the fact that sign languages in general are relatively young languages may account for these types of similarities. With respect to language age, sign languages are similar to creoles. It has been argued that, just like sign languages, creoles around the world show surprising similarities on the grammatical level, even when they have emerged from completely unrelated spoken languages (Sebba 1997). With respect to their sociolinguistic properties there are also commonalities between sign languages and creoles. Children learning these languages generally have parents that are not native speakers of the language. In the case of creoles, the parents speak a pidgin, which is not their native language, whereas in the case of sign languages, most Deaf children have hearing parents that are not native signers. The question remains why creoles and sign languages would show such cross-linguistics similarities, and many answers to this question have been proposed, but this is beyond the scope of this dissertation. Further investigation into this area, using comparative data from sign languages on the one hand and creoles on the other hand might yield some interesting insights into language genesis and language universals.

Cross-linguistic differences between sign languages may be caused by several factors. Some apparent differences between LIU and other sign languages mentioned in this dissertation may be due to differences in analysis. An example is the simultaneity rule that I have proposed in Chapter 6, which may turn out to be a universal rule for sign languages. Differences may also be due to regional or cultural factors. For instance, the fact that headshake is not obligatory in LIU negative constructions, may be related to the fact that headshake is not as common a gesture in the Middle East as it is in Western cultures. The preferred use of character perspective over narrator perspective might also be related to cultural factors, some cultures preferring a more ‘engaged’ or subjective way of story-telling, whereas other cultures might prefer more detachment. The surrounding spoken language clearly has some influence on the structure of a sign language, mainly in areas like mouthings and word order. In the grammatical domains I have focused on, however, the influence of Arabic on the structure of LIU seems negligible. Syntactically, the structures used to express both negation and possession are very different in LIU and Arabic. In the area of pragmatics, that is, with respect to simultaneity and the use of perspective, a direct comparison between Arabic and LIU is difficult if not impossible, because of the different modalities involved. Still, aspects of culture, features of the
surrounding spoken language, as well as the age of a sign language and its developmental stage may all play a role in the differences found between sign languages.

I believe, however, that the factors mentioned above are sometimes given too much weight in sign language research, and that certain differences are simply the result of different developmental paths. There seems to be a general idea among sign linguists that sign languages will all develop in the same direction given enough time. Aronoff, Meir, Padden and Sandler (2003), for example, have suggested that differences between ISL and ASL in the use of classifiers may be caused by their relative age difference. In general, younger sign languages are expected to show less structural complexity, more iconicity, and more use of character perspective than older sign languages. Some aspects of LIU grammar suggest that this idea of a continuum in the development of grammatical structures may need to be revised.

Van Dijken (2004) already showed that LIU shows both characteristics of a young sign language and of an older sign language in its use of classifiers. Thus, abstract, non-iconic entity classifiers, such as the vehicle classifier (Figure 3.24), which are claimed to be characteristic of older sign languages (such as ASL), are combined with a predominant use of body classifiers, supposedly a characteristic of younger sign languages (such as ISL). I have argued in Chapter 7 that this unexpected pattern is related to the fact that LIU prefers character perspective to narrator perspective. Whether this is a characteristic of young sign languages, or whether it is simply one of the parameters in which sign languages can differ, remains to be seen. The same argument can be made for the inconsistency in spatial set-ups found in both LIU and in NiSL. This inconsistency may be typical of emerging sign languages like NiSL (Pyers and Senghas 2007). I would be hesitant, however, to relate the inconsistency found in spatial set-ups in LIU to language age, since LIU has other features that are more typical of established sign languages, such as the ability to express complex arrangements of multiple perspectives simultaneously. As pointed out in Section 8.1, it seems to me that this lack of consistency may be related to the way perspective changes are expressed. Whereas many Western sign languages mainly use spatial set-ups to identify referents, both NiSL and LIU mainly use lexically introduced character perspective, which makes the spatial lay-out less important for identifying referents. Whether or not this pattern will change as these languages develop remains to be seen.

The use of complex simultaneous constructions by younger LIU signers further illustrates that the idea of a grammatical continuum is too simplistic. At first sight, the fact that older signers use these complex constructions less frequently than younger signers seems to support the idea
that grammatical complexity increases as a sign language develops. Still, it is not possible to draw conclusions about the age of the language as a whole solely based on the availability of these structures. In my opinion, the complexity of manual simultaneous constructions is not sufficient proof that LIU is a very old sign language. Similarly, the inconsistency in spatial layouts, found in the same generation of signers, does not prove that LIU is a young sign language. In fact, because we do not know the age of LIU it is hard to know how to interpret these grammatical characteristics at all.

One research area that promises to provide important cues for the discussion on the relation between language age and grammatical features is the area of village sign languages, which needs more investigation. To date, few village sign languages have been researched in depth, but the available descriptions (e.g. Nyst (2007a, 2007b), forthcoming for AdaSL; Marsaja (2008); Perniss and Zeshan (forthcoming b) for Kata Kolok) already suggest that there may be some very basic differences between village sign languages and sign languages of large deaf communities (‘urban’ sign languages). Thus, as illustrated in Chapter 5, the village sign languages AdaSL and Kata Kolok appear to allow for more ambiguity in possessive constructions than urban sign languages. In these languages, locationals, existentials, and possessives can all be expressed by pointing and different interpretations are disambiguated only by the context of the utterance. Also, to the best of my knowledge, an almost complete absence of entity classifiers has so far only been reported for AdaSL, where referents are generally not depicted on a smaller than life-size scale. These features are particularly interesting in light of the fact that some of these village sign languages may be older than established sign languages like ASL. Village sign languages thus illustrate that there is no straightforward relationship between the age of a sign language and the presence, or absence, of certain linguistic features. Unfortunately, no comparative data from village sign languages is available for most of the areas described in this dissertation, making a detailed comparison of LIU with village sign languages impossible.

8.5 Suggestions for further research

As far as grammatical features are concerned, one of the areas in which further research is needed to make typologically relevant claims about sign languages is that of village sign languages, as mentioned in the previous section. The results presented in this thesis suggest that more in-depth research into non-Western urban sign languages, such as LIU, is also needed in order to determine the range of grammatical variation occurring in sign languages. This type of research may show that certain ideas that tend to be
taken for granted among sign linguists, such as generalizations about the developmental path of sign languages, need revision. Cross-linguistic comparisons between sign languages on the one hand and creoles on the other hand may yield interesting results as far as the syntactic features of young languages cross-modally are concerned.

Obviously, in-depth research is still needed for many areas of LIU grammar, too. One of the main areas needing investigation is that of syntactic and prosodic phrasing and boundary markings, since research into these areas would help to fine-tune some of the analyses presented in this dissertation, particularly with respect to manual simultaneity. Getting a clearer view on where constituent and sentence boundaries are also facilitates research in other areas of syntax. Furthermore, a study into the structure of questions in LIU would add to the typological data already available on this subject. Further research into the phonology and morphology of LIU is also needed.

On the sociolinguistic level, a comparison of the signing of older generation signers to that of younger generations might yield interesting insights into the way LIU has developed over time and possibly give some indication of its age. A grammatical comparison between LIU and other sign languages in the Middle East and the Arab World would also be valuable in this respect and might give us a clearer view of the history of sign languages in the Middle East.

Once data from these different domains is available, we will be able to make more well-founded claims not only about typological features of sign languages, but also about the way these languages develop and how their developmental path is different from spoken languages. Being able to compare grammatical structures from a wide variety of Western, non-Western, urban, and village sign languages will also make it possible to locate LIU into the big picture.