

Sign languages: more of the same or not quite?

1. Introduction

For a long time, sign languages -the languages mainly used within Deaf communities- were, at best, considered more primitive, more limited than spoken languages. Even today, the insight that sign languages are indeed real natural languages, independent of -and on a par with- spoken languages is not yet common knowledge and/or generally accepted. Some people still seem to believe that a sign language is a kind of primitive system of gestures and pantomime “invented” to give those who have difficulties using a “real language” a useful, be it limited, means of communication. Another relatively widespread misconception is that a sign language is a gestural (con)version of a spoken language, in other words: that French Sign Language is nothing more than French in -or accompanied by- signs. These kinds of misunderstandings relating to the linguistic status of sign languages appear to have had an influence on (a large part of) sign language research, as will become clear when looking back on 45 years of sign linguistics.

This paper will show how sign language research has changed quite radically since the publication of the first linguistic analysis of a sign language in 1960. It will further discuss two different styles of signing and present an overview of several unique characteristics of sign languages, as exemplified by Flemish Sign Language (VGT), the sign language used by approximately 6 000 signers living in the northern part of Belgium. Today, sign linguists are being confronted with a number of fundamental questions: questions about the nature of gestural-visual languages, what their unique characteristics mean and how they should be dealt with. To conclude this contribution, it is shown that the relevance of these questions -and their answers- extends well beyond the domain of sign linguistics.

2. The “Oral Language Compatibility View” in Sign Language Research

In the past, sign languages were completely ignored by linguists. This changed when in 1960 the American William Stokoe published his book *Sign Language Structure* and showed (among other things) that signs can not be considered indivisible wholes but should be analysed as consisting of various smaller component parts, exactly as is the case for the words of spoken languages. This first modern linguistic analysis of a sign language¹ received quite some attention and especially during the seventies, other researchers (first mainly in the USA, from the end of the seventies, beginning of the eighties onward also in other countries) started to get an interest in the linguistic structure of signs and sign languages as well.

In some of the first publications on sign linguistics questions were raised concerning the degree of similarity between sign languages and spoken languages and two different approaches to the analysis of sign languages were being considered. Karlsson (1984) for example, distinguished the “oral language compatibility view” and the “sign language differential view”:

“On the one hand, there is the oral language compatibility view. This presupposes that most of SL structure is in principle compatible with ordinary linguistic concepts. On the other hand, there is the SL differential view. This is based on the hypothesis that SL is so unique in structure that its description should not be primarily modelled on oral language analogies.” (1984: 149-150)

The author -and with him a good few of the other writers contributing to the same volume Karlsson's paper appeared in (Loncke et al., 1984)- showed a preference for the sign language differential view.

Although in the early days of sign linguistics the other approach was indeed at least considered, quite soon the oral language compatibility view became the dominant one. A large part of sign language research concentrated on the similarities between spoken and sign languages and emphasized the underlying identity of signed and spoken languages. Characteristics that make sign languages unique were often ignored, minimised or interpreted as comparable to spoken language mechanisms after all. The “spoken languages tools” -i.e. the theories, categories, terminology...- developed and used for spoken languages research- were considered to be appropriate for the analysis and description of sign languages without much ado. The “French tradition” (with Cuxac as its main representative) constitutes an exception: especially the importance attributed to iconicity in this tradition resulted in a sign language specific approach (cf. Cuxac, 1996).

3. Sign Linguists “Taking a Stand”

There are many reasons why the spoken language compatibility view became dominant but probably the most important one is related to the status of sign languages. As already explained in the introduction to this chapter, when sign language research began, many doubts concerning the linguistic status of gestural-visual languages remained. A number of researchers felt the desire -or need- to show that sign languages are indeed fully-fledged natural languages and to stress their equivalence to spoken languages. This was mainly done by showing that what is true for spoken languages also holds for sign languages and that what is not the case for oral-auditive languages also isn't true for gestural-visual languages. It is from this perspective that one should understand the minimization of the importance of iconicity in sign languages, for example. Because, as is noted by Johnston (1989):

¹ In fact, Stokoe was not the first: seven years before the Dutch linguist Tervoort had presented a doctoral dissertation on the use of signs with deaf children. Unfortunately, his (initially unpublished) work remained largely unknown for quite some time.

"It has often been taken as a defining characteristic of languages that the relationship between signifier and signified is completely arbitrary and the 'language-likeness' of non-verbal signifying systems has been judged according to the degree of this arbitrary relationship. Systems in which the signifiers are highly motivated have been suspect and considered to be pseudo-linguistic." (1989: 326)

Researchers have different motivations for emphasizing the linguistic status of sign languages. Some may wish to -or are obliged to- prove to their colleagues, supervisors and/or funding bodies- that what they do (i.e. studying a sign language) really is "genuine linguistics" and an appropriate occupation for a linguist (cf. the experiences of Stokoe as described in his biography (Maher, 1996)) Especially in Europe, sign linguists were also often involved in language planning, i.e. they play a(n important) part in the evolution towards a more general role for sign languages (cf. Brennan, 1986). As a result of the misunderstandings concerning their (linguistic) nature, sign languages mostly existed "underground" in the Deaf² communities, did not play a role in mainstream (hearing) society and weren't used in deaf education. Many sign language researchers realised what the negative effects of the suppression of sign languages were e.g. on the schooling of deaf children and employment chances of deaf adults, and often saw themselves as having the responsibility to intervene and try to alter the situation. Even today, in many countries around the world, sign linguists are still "taking a stand" on Deaf issues and are trying to break down the barriers preventing Deaf people from fully participating in (hearing) mainstream society.

There are still other issues playing a part in the dominance of the spoken languages compatibility view, including the following:

1. Especially in the early days of sign linguistics not all researchers were fluent signers themselves and there were hardly any Deaf signers involved in the analysis of sign languages. A natural consequence was that researchers were looking at the object of their study -a gestural-visual language not (yet) very familiar to them- from a spoken language perspective.³
2. When looking for a legitimization of certain theoretical insights scholars may -deliberately or not- miss important information. When examining the position of subject, verb and object in signed sentences starting from a universal grammar-perspective for example, one can easily overlook the importance of simultaneity in signed discourse and the effect it has on word (or sign) order patterning.
3. Writing down sign language data is usually done by representing signs by means of "glosses". A gloss is a word (or a combination of words) from a spoken language (more or less) sharing the meaning of the sign; they are written down in capital letters. So a sign meaning "water" is glossed as WATER. The use of words of a spoken language to write down sign language data may result in a researcher (unconsciously) "transferring" characteristics of the word to the sign. A simple example is word class: using a Dutch preposition to gloss a VGT-sign does not necessarily mean the VGT-sign is also a preposition, but it appears to be very tempting to think it is.

Within the limits of this paper these -and other- factors cannot be discussed at length. There is, however, one more issue I would like to discuss: the possible relationship between the spoken languages compatibility view and the existence of two (very) different styles of sign language usage.

4. "De l'eau plate" and "de l'eau pétillante"

Flemish Sign Language (or VGT) manifests itself in two different forms that I sometimes refer to with the notions "de l'eau pétillante" (sparkling water) and "de l'eau plate" (still water). The following example will illustrate what is meant.

When describing a drawing showing a walking man who is both tall and slim, Flemish signers can say:

- a) (A/ONE) MAN TALL SLIM TO-WALK

but they can also say:

- b) MAN "very-tall" "bony face" vc: "walk-on-long-legs"

Answer a) consists of four or five signs from the VGT-lexicon⁴. It is very likely that every sign is combined with a "spoken component". A spoken component consists of the (usually silent i.e. without voice) articulation of a (part of a) spoken word accompanying the production of a sign. Example a) may include the silent production of the Dutch words "één" (one), "man" (man), "groot" (tall), "mager" (slim) and "wandelen" (to walk). This example would be "de l'eau plate". It involves a sequence of frozen lexical elements. Apart from the spoken components, there is no further non-manual activity: face, head and trunk are of minor importance in the production of the utterance. There is also hardly any "visual imagery" here, i.e. there is little or no trace of "a mirroring of reality".

Answer b) is more of "de l'eau pétillante". The utterance starts with the same frozen lexical sign MAN which can be preceded by the sign glossed as A or ONE as is the case in example a). However, the meanings "tall", "slim"

² It is common practice in the literature on sign languages and Deaf communities to use "Deaf" (with capital D) to refer to a person who is part of a "sign language-using community" and "deaf" to refer to the fact that someone is audiotically deaf. Of course one and the same person can both be deaf (i.e. experiencing a hearing loss) and Deaf (i.e. a member of a (socio-cultural, linguistic) Deaf community).

³ Furthermore, it seems very likely that the majority of sign language researchers was trained to look at a specific type of spoken languages i.e. highly codified languages such as English, French and Spanish, with a long written tradition, used in education, etc. (And that they will probably have been studying these language using instruments designed to analyse Latin and/or Sanskrit). We may assume they were less familiar with analysing and describing "oral tradition languages" i.e. spoken languages lacking a written form, showing little or no codification, used for face-to-face-communication exclusively, etc. But it is exactly these so called "exotic languages" sign languages have most in common with. So when we say that sign languages are looked at from a spoken languages perspective, we actually mean from a "specific group of spoken languages perspective" or even from a "written languages perspective".

⁴ These signs are included in the electronic dictionary Dutch/VGT-VGT/Dutch: <http://gebaren.ugent.be>

and “to walk” are not expressed by means of frozen lexical signs but rather through the use of so called “sign constructions” (“gebarenconstructies” in Dutch, see further). When using VGT, signers may draw from the frozen lexicon or they may use the possibilities the language offers to create “new” lexical items. Frozen lexical items have a (more of less) stable form and meaning: when asking a signer of a particular sign language what the sign would be for meaning A, that signer will most certainly answer with “SIGN A”. However:

“The ‘productive’ lexicon represents the potential signs of the language created through a) ‘novel’ combinations of phonomorphemes which are not lexicalized or b) the selective modification of one or more of the phonomorphemes of an already established lexeme.” (Johnston & Schembri, 1999: 131)

Brennan (1990: 163) discusses “mix ‘n’ match signs”: “mix ‘n’ match involves selecting the component parts and putting them together in appropriate ways to create particular kinds of effect.” Vermeerbergen (1996) uses the (Dutch) notion “gestuele constructie” (gestural construction) to refer to the result of this creative process; in later publications (from 1997 onwards) the notion “gebarenconstructie” (sign construction) is being used. Sign constructions with a predicative function are labelled “werkwoordelijke constructie” (verb construction or “vc”).

An exhaustive discussion of this productive language usage would be outside the scope of this paper; I will limit myself here to some observations concerning the use of sign constructions in Flemish Sign Language.

1. The selection of the component parts of a sign construction is almost without exception motivated. In the construction which can be used to express the meaning of “a person approaching a car”:



the right hand “represents” the upright person; the left hand refers to the car. In both cases the form of the referent (i.e. the form of an upright person and the form of a car) determines the choice of a particular handshape. The right hand moves towards the left hand, which is a visual echo of the real movements of the referents and their locative relation. The signer can choose to add yet more meaning to the construction. If he would e.g. like to express that the person approaching the car is drunk, he could present this with a staggering movement of the left hand. When doing this, the signer can also use “role taking” i.e. use his own expression and body posture to mirror those of the (drunken) referent.

2. The sign construction illustrated above has a relatively simple form (although its analysis is not altogether unproblematic, e.g. is this one construction involving two hands or are these two (one-handed) constructions produced simultaneously?). However, the high level of “motivation” in these constructions often results in a high level of formal complexity (which makes it often hard to analyse these constructions and describe the component parts).

3. A number of frozen lexical items in the VGT-lexicon started off as a sign construction, which shows that productive lexical forms can grow into frozen lexical forms. Such an evolution involves the loss of motivation, or more accurately, the motivation is still there but the signer is no longer aware of it. An evolution from productive form to frozen form usually also means that the form of the sign becomes less complex as can be exemplified in a succession of different movement parts in a sign construction which turns into one single movement in the frozen sign.

Back to the example of the walking tall and slim man. In rendering b):

b) MAN “very-tall” “bony face” vc: “walk-on-long-legs”

there is no frozen lexical sign TO-WALK to express the activity. Rather, the signer produces a verb construction involving the use of both hands each referring to one of the man’s legs (by means of a hand shape consisting of a closed hand with the index finger extracted and the tip of the index finger pointing down, mirroring the form of a skinny, long leg). The movements of the hands imitate the movements of the legs. There is no spoken component, which is also caused by the fact that the signer’s mouth will be involved in “role taking” i.e. the signer will use his own expression and body posture to represent the expression and body posture of the referent. Also because of the use of sign constructions instead of frozen signs to express the meanings “tall” and “slim” this whole utterance is more expressive, richer (in meaning), more “sparkling” when compared to rendering a).

The difference between signs and sign constructions (or between the frozen and the productive lexicon) cannot be regarded as completely equivalent to the difference between “de l’eau plate” and “de l’eau pétillante”, but it is a fact that in general sign constructions are richer in meaning and form than signs. Actually, the “de l’eau pétillante/de l’eau plate”-contrast is not limited to the lexical level. VGT-word order studies (Vermeerbergen, 1996; Vermeerbergen et al., in preparation) for instance, show that there are different ways of indicating the relationship between a verb and its arguments. When there are no clear reasons (e.g. a certain grammatical mechanism) for a

different reading, the argument-verb-argument constituent patterning in declarative sentences needs to be interpreted as subject-verb-object; however, especially in spontaneous discourse, only a limited number of clauses consists of a verb and two overtly expressed arguments. The relationship between a verb and its arguments here is generally indicated by means of mechanisms such as “role-taking”, the use of space, simultaneity, etc. The order of constituents in spontaneous conversation or narratives seems to be determined by factors such as: location before located elements; introducing -and localising- referents before describing their interaction; the immobile preceding the mobile element; cause before result; etc.

The “de l’eau pétillante/de l’eau plate”-story for Flemish Sign Language still needs to be expanded and should be seen as work in progress. It is not a simple story. It is e.g. not as simple as indicating whether a certain linguistic mechanism or structure is one or the other. A mechanism such as “role taking” comes in two different appearances: a more expressive one and a more formal one. In the first case, the signers use their face and body to “imitate” the emotions and body postures of the referent they discuss, in the latter case there is just a (sometimes very) small movement of the body -or even only of the shoulder- in the direction of the locus previously established for the referent discussed. (Cf. Vermeerbergen, 1996).

What is important, is that Flemish Sign Language- together with many (all?) other sign languages- appears to have two different manifestations. The first form looks very much like what we know from the literature on oral-auditive languages and may (easily) be described in similar terms. The other form makes extensive use of the possibilities offered by the gestural-visual modality: use of space, visual imagery, and simultaneity. Both manifestations have their own organisation and their own rules and/or tendencies. Cuxac, in his work on la Langue des Signes Française, talks about choosing “donnant à voir” or not:

Toutes les langues permettent de reconstruire des expériences, mais les langues orales ne font que le dire sans le montrer (...). Il en va tout autrement avec les langues des signes, où la dimension du “comme ça” en montrant et/ou en imitant (comme si j’étais celui dont je parle, et quelles que soient ses actions) bref, en “donnant à voir” peut toujours être activée. “(2003: 14)

(All languages allow for a reconstruction of experiences, but spoken languages only talk about them without showing them (...). It is completely different for sign languages, where the dimension of “like that” through showing or imitation (as if I was the one being discussed, and all his actions) in short: through “donnant à voir” can always be activated”; my translation)

According to Cuxac, signers can decide either to “tell by showing” (“dire en montrant”) or to simply tell without actually “imitating” or “mirroring” real world experiences, observations.... (“dire sans montrer”). It is very well possible that the choice between de l’eau plate and de l’eau pétillante is the choice between a style where “la dimension intentionnelle du ‘comme ça’” is present and a style where the signer has no wish to “tell and show”. A further study of the work by Cuxac and more research on VGT seems to be necessary.

How is all of this related to the spoken language compatibility view in sign language research? It appears that different types of sign language usages display different levels of de l’eau pétillante. A narrative style, for example, contains a lot of bubbles, while declarative sentences produced in isolation do not sparkle at all and a conversation between signers almost always is a cocktail of sparkling and still water. This means that the choice for a specific type of data in research determines to a large extent which manifestation of the language is being studied. The fact that especially in earlier sign language studies researchers based their analysis on a corpus consisting of a translation of spoken language sentences into a sign language (e.g. English sentences translated into American Sign Language) implies that the studies were concentrating on “de l’eau plate” and this in turn will most certainly have contributed to an oral language compatibility view.

5. (A Renewed Interest in) The Unique Characteristics of Sign Languages

Presumably (also) because sign linguists no longer feel the need to prove that sign languages are indeed real languages, more recently sign languages are being looked at with a more open mind and their unique characteristics are not longer ignored or minimalised. A survey of the typical properties of sign languages, as exemplified by Flemish Sign Language, would include the following:

1. The visual-gestural nature of sign languages opens up (structural) possibilities that do not -or to a lesser degree- exist for spoken languages. The most important ones are the use of space and the simultaneous production of distinct elements during discourse e.g. by simultaneously using the two hands as parallel autonomous channels, one encoding signs distinct from the other (be it with certain limitations).

2. Most deaf children go through an atypical acquisition process. Less than five to ten percent of the deaf children are born to Deaf parents. This minority of deaf children is exposed to a sign language at home and will acquire that sign language as their first language. However, the majority of deaf children is born to hearing parents who are not likely to know a sign language. Most Flemish deaf children start acquiring VGT only when beginning preschool and in most cases they will not learn it from their teachers in the class-room (since VGT is still not widely used in deaf education) but through contact with (slightly older) peers.

3. The language usage of Flemish Deaf signers shows important differences. Apart from interregional and intraregional variation (De Weerdt et al., 2003), there also seems to be a lot of variation within the lexicon of one and the same signer.

4. The same could be said for the grammar. Although there is a certain structural regularity, VGT grammar rather seems to consist of grammatical *tendencies* and not much of grammatical *rules*. (Cf. also Karlsson (1984)).

5. There are important similarities between the grammar of VGT and the grammars of other sign languages. It seems there is a shared grammatical patterning across different, unrelated sign languages. (Cf. Johnston, 1989; Woll, 2003)

6. The frozen lexicon of VGT appears to be remarkably smaller than the lexicon of spoken languages. An important issue in this respect is the possibility to create “new” lexical items. (See section 4 above; cf. Johnston & Schembri (1999) for a similar observation concerning Australian Sign Language.)

7. The importance of iconicity, both in the lexicon and in the grammar. (Cf. work by Cuxac)

8. In sign languages linguistic information and “co-verbal gesturing” share the same modality, making it hard to separate them. (Cf. Liddell, 2003)

9. Most signers do not (yet) know a written form of the sign language they use. Since 2001, SignWriting⁵ is being promoted as a means of writing down Flemish Sign Language, however, the number of people that have learned to use it is still very limited. This means that for most Flemish signers VGT is their preferred language for “oral” communication and Dutch is being used for reading and writing. Moreover, these two languages have a very different status: many -if not all- Deaf signers still have doubts regarding the linguistic status of VGT, while the (high) status of Dutch is undisputed.

10. Reduplication is very common in Flemish Sign Language. More than one out of every 20 utterances in spontaneous VGT-data show some kind of repetition (Vermeerbergen & De Vriendt, 1994). However, signers do not seem to be aware of this, nor do their interlocutors.

I would like to stress that not all of the above mentioned particularities are (necessarily) related to the visual-gestural nature of sign languages. The instability of the lexicon -and probably also of the grammar- e.g. will most certainly have nothing to do with the modality but is the result of the lack of codification and of the language not being used in education.

6. Sign Language Research and our Understanding of Human Languages

For a long time sign languages were placed outside the field of interest of linguistics because they were not considered to be genuine human languages. In the first thirty years or so of sign language research, especially in the Anglophone/American oriented literature, researchers often concentrated on the similarities between spoken languages and sign languages, mostly because of a need or a desire to prove that sign languages are indeed real human languages. But the field has moved on and more recently the uniqueness of sign languages is being given increasingly more attention and it is not longer taken for granted that spoken language research instruments (theories, categories, notions ...) automatically “fit” sign language research.

When looking at sign languages with an open mind, researchers are confronted with findings, observations, questions ... of which the importance extends well beyond the domain of sign linguistics. Some examples are: Recent (linguistic and neurolinguistic) studies e.g. have shown that the gestural-visual nature of sign languages does have an impact on their linguistic structure, which means that at least part of the differences between sign and spoken languages are related to their different modalities. Woll (2003) states:

“The most essential question for linguistics which arises from such research is the extent to which linguistic theory needs to take account of modality. This is of as great importance to theorists working with spoken languages as to sign linguists, since linguistic theory is predicated as being modality-free.” (p. 24)

Cuxac (2000) argues that sign languages are not characterised by duality of patterning. In his opinion this does not mean that sign languages should be considered as non-genuine languages. Instead, the duality of patterning should no longer be seen as a *conditio sine qua non* to attribute the label “language” to a certain communication system. He also questions the universality of the levels of phonology and syntax (Cuxac, 1999). The current discussion regarding the status -linguistic versus gestural i.e. non-linguistic in a strict sense- of certain elements of the signal in sign languages (cf. Schembri et al., to appear; Liddell, 2003) shows analogies to the debate regarding the status of co-verbal gesturing as used by speakers of a spoken language. And the study of a-typical language acquisition and the creation of language in deaf children lead to new insights into language acquisition in general (cf. Goldin-Meadow, 2003).

Today it has become clear that the study of gestural-visual languages offers an important supplement to the analysis of oral-auditive languages. A better understanding of different aspects of their structure and usage and a backchanneling of the results of sign linguistics to spoken languages research might and will contribute to a better understanding of human language in general.

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⁵ SignWriting is a writing system which uses visual symbols to represent the handshapes, movements, and facial expressions of sign languages. It was developed by Valerie Sutton and her team. For more informaton, see: <http://www.signwriting.org/>

References

- Brennan, M. 1986 "Linguistic Perspectives." In B.T. Tervoort (ed.) *Signs of Life. Proceedings of the Second European Congress on Sign Language Research*, 1-16. Amsterdam: The Dutch Foundation for the Deaf and Hearing Impaired Child/ The Institute of General Linguistics of the University of Amsterdam/ The Dutch Council of the Deaf.
- Brennan, M. 1990 *Word Formation in British Sign Language*. Stockholm: University of Stockholm.
- Cuxac, C. 1999 "The Expression of Spatial Relations and the Spatialization of Semantic Relations in French Sign Language." In C. Fuchs & S. Robert (eds.) *Language Diversity and Cognitive Representations*, 123-142. Amsterdam: John Benjamins.
- Cuxac, C. 2000 *La Langue des Signers Française. Les voies de l'iconicité*. *Faits de Langues* 15-16, Paris: Ophrys.
- Cuxac, C. 2003 "Langue et langage: un rapport critique de la Langue des Signes Française." In C. Cuxac (ed.) *Langue française, 137. La langue des signes, statuts linguistiques et institutionnels*, 12-31. Paris: Larousse.
- De Weerdt, K., Vanhecke, E., Van Herreweghe, M. & Vermeerbergen, M. 2003 *Op (onder)zoek naar de Vlaamse gebaren-schat*. Gent: Cultuur voor Doven.
- Goldin-Meadow, S. 2003 *The Resilience of Language. What Gesture Creation in Deaf Children Can Tell Us About How All Children Learn Language*. New York: Psychology Press.
- Johnston, T. A. 1989 *Auslan: The sign language of the Australian deaf community*. Unpublished doctoral dissertation, University of Sydney.
- Johnston, T. & Schembri, A. 1999 "On Defining Lexeme in a Sign Language." *Sign Language & Linguistics*. 2/1, 115-185.
- Karlsson, F. 1984 "Structure and Iconicity in Sign Language." In F. Loncke, P. Boyes-Braem & Y. Lebrun (eds.) *Recent Research on European Sign Languages*, 149-155. Lisse: Swets & Zeitlinger B.V.
- Liddell, S. K. 2003 *Grammar, Gesture, and Meaning in American Sign Language*. Cambridge: Cambridge University Press.
- Maher, J. 1996 *Seeing language in sign: The work of William C. Stokoe*. Washington DC: Gallaudet University Press.
- Schembri, A., Jones, C. & Burnham, D. (to appear) "Are classifier verbs of motion blends of signed language and gesture?: Evidence from Australian Sign Language, Taiwanese Sign Language and non-signers' gestures". Manuscript.
- Vermeerbergen, M. 1996 *ROOD KOOL TIEN PERSOON IN. Morfo-syntactische aspecten van gebarentaal*. Ongepubliceerd doctoraal proefschrift. Brussel: Vrije Universiteit Brussel.
- Vermeerbergen, M. 1997 *Grammaticale Aspecten van de Vlaams-Belgische Gebarentaal*. Gentbrugge: Cultuur voor Doven.
- Vermeerbergen, M. & De Vriendt, S. 1994 "The Repetition of Signs in Flemish Sign Language." In I. Ahlgren, B. Bergman & M. Brennan (eds.) *Perspectives on Sign Language Structure. Papers from the Fifth International Symposium on Sign Language Research. Volume 1*, 201-214. Durham: ISLA.
- Vermeerbergen, M., Leeson, L., Schembri, A. & Johnston, T. (to appear) "Considering Cross-Linguistic Analysis of Constituent Ordering in Sign Languages: A Presentation in Three Parts." Te verschijnen in P. Perniss, R. Pfau & M. Steinbach (eds.) *Sign Languages: A cross-linguistic perspective*. (werktitel) Berlijn: Mouton de Gruyter.
- Woll, B. 2003 "Modality, Universality, And the Similarities among Sign Languages: An Historical Perspective." In A. Baker, B. van den Bogaerde & O. Crasborn (eds.) *Cross-linguistic Perspectives in Sign Language Research*, 17-27. Hamburg: Signum.