

SIGN LANGUAGE STUDIES – AN INTERVIEW WITH ROLAND PFAU

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REVEL – When did you start working on sign languages? What was your main interest when first studying the field?

R. PFAU – I started studying sign languages – that is, German Sign Language at that point – in 1995. I had just started my PhD project at the University of Frankfurt, which actually focused on spontaneous speech errors and not on sign language, when my professor, Helen Leuninger, got interested in sign language issues. She was able to set up German Sign Language (*Deutsche Gebärdensprache* – DGS) courses at the university and I enrolled, simply because I was intrigued by the possibilities of a language in the visual modality. I first looked at the language from a second language learner’s perspective – struggling with its grammatical complexities – before developing an interest in investigating the linguistic structure of the language.

I was soon fascinated by the fact that sign languages, despite the use of a different mode of transmission, employ grammatical structures and rules similar to those described for spoken languages. Actually, I got so fascinated that for quite some time, I focused too much on sign language and too little on my dissertation. I am working within the framework of Generative Grammar and the study of sign languages is revealing in this context as it provides evidence for the assumption of a language capacity that is modality-independent. The study of the linguistic structure of DGS, especially from a generative perspective, was still pretty new at that time and

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therefore basically everything still required thorough investigation – at the same time a challenge and a fascinating opportunity.

Once I had a bit of a grasp of German Sign Language, I started to do research on its phonological and morphological structure, the latter in cooperation with my colleague Susanne Glück. My first studies on DGS, both published in 1997, focused on the handshape inventory and syllable structure of DGS and on its classifier system. In the sign language literature, the term ‘classifiers’ refers to handshapes that combine with verbs of motion and location (e.g. ‘to move’ and ‘to give’) and that reflect semantic and shape properties of an argument; the verb ‘move’, for instance, would have a different handshape depending on whether a person or a car moves, and the handshape in the verb ‘give’ reflects whether one gives a book or a pen. Susanne and I argued that this phenomenon should not be analyzed as an instance of lexical word formation or incorporation (as had been suggested in the literature) but rather as an instance of agreement. In other words: the handshapes that are used in these verbs are agreement morphemes. Ever since, my main interest has been in the study of the grammatical structure of sign languages, mostly their morpho-syntactic and syntactic structure, and I particularly enjoy addressing these phenomena from a typological perspective.

REVEL – What kind of grammatical evidence can a linguist get from the study of sign language structure and sign language typology?

R. PFAU – Sign language typology is still a comparably young research field but it has already yielded lots of exciting results. Work on the typology of sign languages involves two components, and both are interesting and rewarding.

First, it has been and still is important to compare sign language structures to spoken language structures, as such comparisons help us understand which aspects of grammar are truly modality-independent, that is, the same for languages in the oral and the visual modality, and which are modality-dependent. Thanks to numerous studies on different sign languages, it is now clear that to a large extent, sign languages employ the same grammatical machinery as do spoken languages. Thus all

natural languages can be accounted for by the same theoretical models – whatever these models are – and no modality-specific accounts are required. I take this to be a very important and exciting finding. In particular, the apparent simultaneous structures of sign languages, which result from the availability of two identical articulators, the two hands, as well as from the simultaneous use of manual and non-manual means of expression, can be captured by the same hierarchical phonological and syntactic models. Note that ‘non-manual means’ includes all information that is not transmitted by the hands, such as facial expressions and hand and body movements, all of which may play a crucial role in the grammar of sign languages. It is true that, given the availability of different (manual and non-manual) articulators, a lot of information can be expressed simultaneously, to the extent that six or more morphemes can be expressed within a single syllable, but this difference is a difference in quantity, not in quality. Establishing this has been a major breakthrough, not only for sign language linguistics, but also for linguistics in general.

Second, as more and more sign languages are investigated, it becomes possible to also compare sign languages to each other in order to find out in how far they vary in their grammatical structures. Thanks to this endeavor, we now know that sign languages are similar to each other in some respects (e.g. their pronominal systems and the use of reduplication for aspectual and number inflection), but that they also display interesting cross-linguistic variation (for instance, when it comes to word order, negation, and relativization strategies) and that the attested patterns of variation mirror those that have previously been described for spoken languages. Again, this implies that one does not have to come up with entirely new classifications or explanations just for the sake of explaining sign language data. To give just one example: it has been found that the typology of relative clauses, which has been developed on the basis of spoken languages and which distinguishes, amongst others, between head-external and head-internal relative clauses, also holds for sign languages; DGS has head-external relative clauses, while Italian Sign Language makes use of head-internal relative clauses.

REVEL – Many students who start their studies in linguistics don't realize that a sign language is as rich a system as any other natural language. Can you give us some examples from work with syntax, morphology, or phonology of sign languages?

R. PFAU – Well, one example, I have actually just given when talking about relative clauses. Clearly, relativization strategies in sign languages are as complex and diverse as they are in spoken languages. This does not necessarily imply that *all* sign languages have a dedicated relativization strategy, or that DGS would always make use of the available strategy – but obviously, the same is true for spoken languages. It does show, however, that the grammatical system (Universal Grammar, if you wish) makes available certain options and that natural languages, spoken and signed, choose one (or more) of these options.

Staying with syntax, it has also been argued that negation and interrogatives involve structures and derivations that are characteristic of other (spoken) natural languages. In many sign languages, negation can be expressed by a manual negative particle in combination with a non-manual marker, usually a side-to-side headshake. While this combination of a manual and a non-manual element appears to be modality-specific at first sight, it has been argued – amongst others by myself – that it actually is an instance of split negation, not unlike what we observe in, for instance, spoken French. In DGS, the manual negative element behaves like a particle (which, just like the French negative element *ne*, is optional) while the headshake can be analyzed as an affix that attaches to the verb. Wh-questions (i.e. questions involving a question word like 'what' or 'who) have attracted quite some attention because, just as in many spoken languages, they involve a question word (wh-word) that appears at the periphery of the sentence. In striking contrast to most spoken languages (including Portuguese), however, across sign languages, the most common position of the wh-sign appears to be the sentence-final position (e.g. BOOK BUY WHO 'Who bought a book?'). This has given rise to an interesting debate concerning alleged universal properties of wh-questions – universals that have been established on the basis of spoken languages alone. The question is: Do the sign language data contradict these universals or can they be accounted for by modality-independent mechanisms?

Within the realm of morphology, it has been demonstrated that many sign languages allow for morphologically highly complex signs. As far as we know, there is only little derivational morphology, but compounding exists and the inflectional systems of many sign languages are very rich and include aspectual modulations, subject and object agreement, and classifier morphemes, amongst others. As I have already pointed out, what makes the system special is the fact that much of this information can be expressed simultaneously, such that a verb with a complex meaning like ‘you give me a big flat object with some effort’ has the same syllable structure (i.e. is as long) as the base form ‘to give’: both consist of a sequence of a location, a movement, and another location, but the handshape, movement, and non-manual features of the inflected form are different from that of the base form. Despite their simultaneous realization, all morphemes are readily identified, and thus (at least some) sign languages can be argued to fall within the typological group of agglutinative languages.

Simultaneous structure is also observed within the phonological system of sign languages. The phonological primitives (sometimes called ‘parameters’) of sign languages are handshapes, movement, location, and non-manual features. Clearly, this is strikingly different from the system of spoken languages, which includes vowels and consonants, but still, it has been demonstrated that these primitives are organized in a phonological hierarchy not unlike that of spoken languages. Also, the combination of parameters is constrained by phonological rules. For instance, if two fingers are extended in a sign (e.g. the index and the middle finger), they both must have the same position, be it fully extended or bent; the phonological system rules out a form in which the index finger is fully extended but the middle finger is bent, although from an articulatory point of view, such a form would not be too problematic. In addition, in the lexicon one-handed signs have to be distinguished from two-handed signs. The latter are constrained by another phonological rule which seems to hold in all sign languages studied to date: if both hands move in a mono-morphemic sign, then they both must have the same handshape and perform the same movement, either symmetrically or in alternation. Again, forms that violate this constraint are in principle easy to articulate, but they do not exist.

All of this is evidence for a grammatical system that is complex and rule-governed on all levels of linguistic description, similar, but not necessarily identical, to what has been described for natural languages in the oral modality. Actually, everyone who starts learning a sign language, will quickly realize that it is much more than just a simple combination of mostly iconic gestures – a sign language is as difficult (or as simple) to acquire as any other language.

REVEL – You are one of the editors of the journal *Sign Language & Linguistics* (John Benjamins Publishing Company). Can you tell us a little bit about the aim and the scope of this journal?

R. PFAU – My colleague Josep Quer from the University Pompeu Fabra in Barcelona and I have been editing the journal *Sign Language & Linguistics (SL&L)* since 2007, when we took over this task from the previous editor Ronnie Wilbur, who had established the journal in 1998. Editing the journal is a lot of fun but, as you may imagine, at time also a challenging task. We enjoy being in contact with (prospective) authors and being up to date with what is happening in the comparably small but expanding world of sign linguistics. It's really exciting.

The focus of the journal is on studies on sign language structure that are theoretically informed, that is studies that apply existing theoretical insights/models to sign languages and thus expand our knowledge of grammar on the basis of sign languages. We welcome studies that take a cross-linguistic and cross-modal perspective on the phenomenon they investigate, pretty much in line with what I sketched in my answer to your second question. *SL&L* is open to all areas of linguistic investigation: from the various areas of grammar (phonology, morphology, syntax, semantics), via pragmatics to psycho- and neurolinguistic investigations. Obviously, we are also interested in studies focusing on language typology and the possible effects of language modality on the structure of grammar.

The present issue (15:1), which should come out around the same time as this interview, is a special issue containing selected papers focusing on phonetics and phonology that were presented at the last *Conference on Theoretical Issues in Sign*

Language Research (TISLR 10). Recently, the journal also included papers on a discourse marker in New Zealand Sign Language, sign recognition in Sign Language of the Netherlands, and various papers (compiled in another special issue) on the use of phonological, morphological, and syntactic non-manuals in American Sign Language, British Sign Language, DGS, Hong Kong Sign Language, and Turkish Sign Language.

REVEL – Could you please suggest some bibliography concerning Sign Language Studies for our readers?

R. PFAU – For those of you who want to get a good overview of the field of sign linguistics – phonology, morphology, syntax, and applied dimensions – I would suggest one of the available introductory monographs focusing on a single sign language: Sutton-Spence & Woll (1999) on British Sign Language, Johnston & Schembri (2007) on Australian Sign Language, Meir & Sandler (2008) on Israeli Sign Language, or Leeson & Saeed (2012) on Irish Sign Language. All of these monographs are accessible to a readership with a basic knowledge of linguistics and no prior knowledge of sign linguistics and all of them also provide information on the social and historical context and on the deaf community.

For more advanced readers with a solid background in linguistic theory (including generative approaches), I recommend the book by Sandler & Lillo-Martin (2006), which is not about a single sign language but rather addresses issues of universality and modality – it really provides a fantastic overview of all the relevant issues. Let me also squeeze in a little bit of promotion for an upcoming publication of my own, the handbook ‘Sign Languages’, which I edited together with Bencie Woll and Markus Steinbach and which will come out any day now – to the best of my knowledge the most comprehensive handbook on sign language to date.

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