Language is an “activity of the whole body”: A memorial to Franz Dotter

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Abstract. Franz Dotter was a world recognized linguist and sign language scholar. His tragic passing in 2018 deprived the field of sign linguistics from a pioneering voice. In this paper we ask several questions concerning sign language and Dotter’s approach to sign linguistics and reflect on Franz Dotter’s contributions to the field of sign linguistics. Dotter turned his expertise and analytic skill to questioning the common approach to sign languages which assumed that theories developed to account for spoken language could be simply applied to sign languages. Instead, Dotter insisted on studying sign languages on their own terms. Dotter also was a thoughtful critic of the claim that most characteristic elements of sign languages are fusions of linguistic and non-linguistic elements — a claim which he incorporated into the title of a paper and then resoundingly rejected. As we show, Dotter was an early proponent of cognitive linguistic approaches to sign language analysis. He also was a critical thinker who examined and encouraged others to study the importance of non-manual elements in sign language texts. Always an advocate for sign languages and deaf people, Dotter was active in fighting for Deaf Rights. Finally, we introduce some of the research we have conducted, influenced either directly or indirectly by our interactions with Franz Dotter.

Keywords. Cognitive Linguistics, typology, sign languages, cognitive grammar, gesture
1. Introducing Franz Dotter

**Sherman Wilcox**: When I think of Franz Dotter\(^1\), my fondest memory is from our time together in Hamburg. I think perhaps it was the first time we met. The details are now lost in the fog of time — that was nearly 20 years ago. We were at a conference honoring Siegmund Prillwitz. One evening, conference participants were transported by bus to Professor Prillwitz’s home. On that somewhat long bus ride, Franz and I sat together. We chatted about sign linguistics, of course — linguistic theory, practical matters such as dictionary development, and more. We also talked about music. I immediately felt a friendship developing.

**Andrea Lackner**: The first time I met Franz Dotter in person was in 2007, around 13 years ago. I had arranged a meeting with the Deaf staff of the Center for Sign Language and Deaf Communication, a small center dealing with sign language issues that was founded by Franz. I presented in ÖGS (Austrian Sign Language) my MA thesis on turn-taking and turn-structure in ÖGS in a kind of discussion forum. The data I used for the thesis came from Deaf people of my home region. I remember Franz being quite fascinated that I tried to build up a small corpus that involved Deaf participants in two ways: I ensured they could sign in a very open and natural way, and they were invited to annotate or comment on their data in ELAN despite the fact that they had never done this before and were not trained to annotate signed data. Their professions were sawmill worker, tailor, carpenter or home keeper.

From then on Franz mentored my research, but not by looking down at my studies. It rather was a cross-fertilization on an academic level. A very dear memory are our farewells which were

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\(^1\) Franz Dotter (1948 – 26\(^{th}\) March 2018) studied German language and literature, mathematics and philosophy. He qualified as a university lecturer on iconicity in syntax (1990). Afterwards he became an Associate Professor for General Linguistics at Klagenfurt University. In 1996 he established the Center for Sign Language and Deaf Communication (ZGH) in Klagenfurt, which he led until 2013. More on Franz Dotter’s university work is to be found in the articles of Krausneker (2013) and Hilzensauer (2018), published in the journal “Das Zeichen”.

very Deaf-like ones. After hour-long meetings at the ZGH, we would always leave the building and spend again hours to say goodbye as we still had to discuss so many linguistic and Deaf-related issues.

2. How should we look at sign language? Or how should we look at all languages?

Franz Dotter: “Visual languages not fulfilling the expectations of spoken language typology are devaluated – due to the lack of a linguistic theory generalized to cover spoken and sign languages”

“[... they] can only be adequately analyzed when their cognitive and production strategies are taken as specializations of the human language faculty in the visual mode.”

Sherman: It seems to me that a driving concern of Franz was to study sign languages on their own terms. So much of his writing and his research focuses on recognizing the visual nature of sign languages. I believe in this way Franz was deeply respectful of sign languages and deaf signers. I mean that not only in a sociological or humanist way. In scientific terms, I would say that Franz was deeply respectful of the data.

This guiding ethic appears, for example, in his 2000 article, “On the adequacy of phonological solutions for sign languages.” Franz talks about the possibility and also the dangers of the transfer of linguistic findings to new areas, pointing out that in sign linguistics there are two competing approaches: one that “feels confirmed by certain axioms concerning the nature of language and universals, mainly stemming from generative grammar,” and another that is skeptical about the transfer of findings from spoken language to sign language. Franz then postulated that the decision of which approach one adopts as the guiding framework or theory for analyzing sign language depends on whether we accept what we know is “true” for all possible languages or question the universal applicability of these findings. Those who believe the former adopt a strategy that begins with observation of spoken language, which leads to a theory that accounts for that data. The linguist who works under this strategy then assumes that these findings are valid for all possible languages,

and so applies that theory to sign language. Alternatively, those who are skeptical about the assumption that observation of spoken language data alone can lead to a theory valid for all possible languages will adopt a different strategy. Here, the linguist starts from two points: observation of spoken language, followed by description and development of theory, and observation of sign language, followed by description and development of theory. These two routes merge in the development of a “theory of language in general.”

Like Stokoe before him, Franz recognized that previous findings of properties of language, such as those during the structuralist era of Hockett’s so-called design features, were based on a biased data sample: the theory of what constitutes “language” was developed by looking only at spoken languages. Franz asked us to “take a closer look at what ‘we see’” when we look at sign languages. Summarizing what he saw when he looked, Franz believed that “the phenomenological differences are so big that it is not very likely that SpL [spoken language] and SL [sign language] are structured identically”.

Andrea: Franz argued in constantly recurring discussions that linguists are at risk of describing the world and thus language from a hearing point of view. This explains why analogies from spoken language linguistics are transferred onto sign language linguistics. Hasty applications of such models (developed with spoken language in mind) onto sign languages are frequently accompanied by the lack of evaluation of their origin or lead to misunderstanding models for reality. In such cases, linguists confuse the phenomena to be described with their description of it, i.e., the object with the model to be developed.

Franz tried to define different language types (cf. Dotter & Holzinger 1995a and 1995b or Dotter 2014) to lead linguists gone astray back to the development of a typology that can be applied to both the spoken and the signed language type. The description of both types is based on how they are constructed. The spoken language type produces crucial elements in the acoustic-auditory channel. In literature such elements are defined as “linguistic” [lingual]. Gesture that accompanies these elements is considered visual-gestural and not defined as linguistic (apart from some
exceptions where these elements can fill particular syntactic slots). In sign languages, crucial elements are produced and perceived in the optical-visual channel. In sign language research only elements fulfilling the expectations of spoken language structure are considered linguistic [lingual]. Optical-visual aspects that seem to be similar with gesture accompanying spoken languages are often described as “non-linguistic”. However, Franz emphasizes, they should not be mistaken for non-linguistic elements. Rather they are crucial visual coding strategies used in sign languages in a linguistic manner.

Another difference Franz observed in the language types he defines is how they encode linguistic elements. Spoken languages encode their linguistic elements primarily sequentially while sign languages encode them sequentially and simultaneously. These encoding strategies correspond to the different potentials both types of language use. “Detailedness of sounds in spoken languages correlates directly with the sequential ordering of language material”, Franz (Dotter 2014) stated. He explained solely sequential encoding (of sounds) leads to greater linguistic detail (detailedness) within the sequential order of these elements. Sign languages use sequential and simultaneous encoding strategies of linguistic material which offers potential to develop greater linguistic detail not only sequentially but also (compared to spoken languages maybe first and foremost) simultaneously. Franz describes the differences of these language types based on how they are created. Different modalities offer and require different possibilities of encoding several details. These differences become visible even in minor details required to produce grammatically adequate texts such as gender-marking in several spoken languages and marking a person via position in sign languages.

3 In sign linguistics literature sign languages are often classified as ‘visual-gestural’. We prefer a three-part classification based on method of production/articulation, medium of transmission, and method of reception/perception. Thus we prefer:

gestural > optical > visual
gestural > acoustic > auditory

These terms recognize that both spoken and signed languages are produced with articulatory gestures. For further discussion see Wilcox (2015) and Neisser (1967).
Sherman: I feel Franz was always trying to drill down to an essential aspect of sign languages that is still not fully appreciated: the significance of simultaneity. Certainly sign linguists have observed this feature of sign languages and written extensively about it. But Franz was looking, I might say, for some deeper significance. In fact, I would call it a conceptual significance. It reminds me very much of Stokoe’s original insight concerning the nature of sign language. For example, in his 1960 essay “Sign Language Structure” (published, significantly, not in a linguistics journal but in the Annual Review of Anthropology), he wrote:

*Signs cannot be performed one aspect at a time, as speakers can utter one segment of sound at a time. Signers can of course display handshapes of manual signs ad libitum, but they cannot demonstrate any significant sign action without using something to make that action somewhere. By an act of the imagination, however, it is possible to “look at” a sign as if one could see its action only or its active element only or its location only. In this way three aspects of a manual sign of sign language are distinguished, not by segmentation, it must be reemphasized, but by imagination.*

3. «Ceci n’est pas un geste» – the sign-gesture discussion

Sherman: Other social sciences are now realizing the danger of studying WEIRD (Western, educated, industrialized, rich and democratic) samples and then over-generalizing the findings to new populations. Franz recognized that building a linguistic theory in this way led to weird results. Franz’s insight is most evident to me when I think of his critique of currently popular thought on the relation between sign and gesture. Franz held strong beliefs in this matter, as do I. Here too, I see Franz’s position as one of “seeing” sign languages in their own terms, and of refusing to take part in an inappropriate transfer of assumptions.

Franz’s intuitive understanding of these problems are most apparent in his 2018 posthumous article, the title of which targets the question with deadly accuracy: “Most Characteristic Elements of Sign Language Texts Are Intricate Mixtures of Linguistic and Non-linguistic Parts, Aren’t They?” With the keen eye of an skilled linguist and typologist, Franz reveals unquestioned assumptions
brought over from structuralist theory, faulty logic, and unsupported assertions as he meticulously deconstructs the edifice of the Gesture School. He starts by examining three methodological shortcomings:

- the coding conditions and possibilities of SL, especially related to indexical and iconic (in contrast to symbolic) morphemes. That is, as we saw above, Franz believed that sign languages need to be seen on their own terms: “[S]ystems such as spoken languages or sign languages do their work with the properties that they have.” Sign linguists, Franz observed, are not adequately taking into account what we might call the affordances or potentialities of sign languages, given their unique production (two hands capable of acting simultaneously, torso, head and face), signal channel (optical vs. acoustic medium), and perceptual mechanism (vision, with its unique properties such as foveal and peripheral vision, need to direct visual attention in order to receive a signal, etc.).

- the relation between gradient production and categorical cognitive processing in all languages

- the contrast between listability and the application of rules

In current sign linguistic theory, the misunderstandings and erroneous assumptions surrounding gradience and listability have led to the situation in which “There is a considerable number of sign language linguists who accept as proven that essential parts of sequential-simultaneous constructions in sign languages ... are ‘gestural’ and therefore do not have language status, i.e. are ‘non-linguistic’.”

And so Franz sets out to answer the question posed in the title of his article with a resounding, “No.” With surgical precision, Franz deconstructs these three methodological shortcomings and offers his own extensive alternative grounded in functional and cognitive linguistic approaches. Ultimately, Franz came to a simple but profound conclusion: “If we take the perspective to construct a linguistic theory which postulates that it should be able to provide the instruments to analyse all languages, we have to choose another procedure: We have to abstract our methods to be adequately applied to all known languages, especially SL.”
Andrea: I would like to supplement the description given above by emphasizing that Franz always demanded a criteria-based approach. He repeatedly claimed a meta-(language) modality perspective to avoid any misleading usage of terms such as “conventionalized”, “gradient”, “completely countable” or “grammatical”. Franz emphasized a discussion about terminology requires rethinking the creation of pure sign language-orientated terminology such as “indicating” or “depicting”. In Franz’s view such a discussion would be crucial when it comes to spatial encodings of sign language elements present in index, spatial and agreeing verbs, spatial reference and classifier constructions which are wrongly interpreted as non-linguistic i.e., gestural. Gestural interpretation is based on the formative vagueness of these elements i.e., their “(spatial) gradience”. Yet such an interpretation cannot be argued on the grounds of a methodological linguistic theory. To conclude, Franz stated a discussion about what criteria qualify elements in sign languages as “linguistic” or “non-linguistic/gestural,” since this understanding is necessary in order to integrate sign languages in the framework of a common, modality-independent typology (see also Dotter 2016a and 2016b).

Sherman: In the conclusion of his article, Franz returns to his typological roots: “The Gesture School’s assumption of an enormous number of gestural components in SL texts, intricately combined with language elements – concerning essential areas of SL grammar – can be disproved by adequately transferring methodology and findings from SpL to SL in the framework of a comprehensive typology.”

At the beginning of the current era of sign linguistics, Stokoe inherited a theory built on a set of assumptions that told him what language is. In part, he challenged that view. For example, by demonstrating that signs are composed of meaningless elements, the equivalent of phonemes, that are components of meaningful elements, he both dispelled the claim that sign languages do not exhibit duality of patterning and reframed ‘phonology’ — the very label says it must apply only sound — in a way that applies to sign languages. In so doing, Stokoe drove our understanding of the human language capacity forward. How odd it is that once again those who work with the historical benefit of Stokoe’s insight choose to put up categorical fences around communicative phenomena
based on unquestioned assumptions. This is what is now occurring with attempts to delimit into strict “classical” categories what is “language” and what is “gesture”.

Franz chose not to erect fences. I have no doubt that as more and more linguists challenge the claim that, as Franz put it, “most characteristic elements of sign language are mixtures of linguistic and non-linguistic parts,” the field of sign linguistics, and indeed linguistics generally, will come to see that Franz looked at sign languages with clear eyes, and in so doing he also pointed the way to a more comprehensive view of human language.

Andrea: Franz loved to explain linguistic phenomena or people’s view on different linguistic aspects via metaphors. One of his favorites was La trahison des images from René Magritte (1929). Franz used it to illustrate that language is ‘constructed’ similar to how picture and reality relate to each other.

**Figure 1:** Leci n’est pas une pipe

Franz also tried to identify metaphors of thinking used by laymen and scientists. In his 1999 article “Sign language between gestures (nonverbal behavior) and spoken languages?” Franz discusses a metaphor which depicts sign languages as positioned ‘between’ gestures and spoken languages. According to him this metaphor is widely accepted without being questioned but should be abandoned to broaden perspective on sign languages and their spatial grammar.

At this point an excursus seems necessary to explain how gesture, sign language and spoken language were addressed in language research. The underlying question “what is language” has been tried to be answered very extensively by one man many years ago: Wilhelm Max Wundt (1911), known as one of the founders of

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4 Source: https://www.museumtv.art/artnews/articles/rene-magritte-ceci-nest-pas-une-pipe/
modern psychology by most people, devoted the first volume of his book series *Völkerpsychologie* to language. The volume, *Die Sprache*, includes the chapters *Die Ausdrucksbewegungen* (movements of motion) and 100 pages on *Die Gebärdensprache* (sign language). Wundt tried to narrow down Affekte i.e., facial and bodily motions associated with emotions, constantly following a psychological perspective. On the basis of general movements of motion, he attempts to describe what leads from movements of motion to language use. This distinction serves as basis for the chapter *Die Gebärdensprache* in which he outlines features of *GebärdenSprachen*. Other chapters of the book are devoted to spoken languages features. In his description of sign language he distinguishes sign language of the Deaf from sign language of indigenous people as well as *Gebärdenzeichen* (signs/symbols) of European (and other) cultures and *Gebärdenzeichen* used in monasteries. He described them, of course, from a psychological point of view based on the knowledge and terminology used at that time (e.g. his following the common assumption of sign languages implying a universal character). Interestingly, he never used the term *Gestik* (gesture). Certainly, the term *Gebärde* and (sich) *gebärden* might be translated as sign or gesture or as signing or gesturing, the term *gestikulieren* (gesturing) was used in German at Wundt’s time too\(^5\). This description from times before current well-known research was conducted, offers a refreshing perspective on what issues need to be discussed again. Wundt’s approach reveals how common assumptions – as illustrated with Franz’ metaphor above – could blur our vision of what is essential to qualify language as language. His metaphor challenges us to question common thoughts on sign languages and points to

\(^5\) Hardly any other sign language or gesture researchers write about Wundt’s pleadings. Mead (1973) devotes a book to him, titled *The language of gestures*. Surprisingly, he does not discuss the term *Gebärde*, but translates Wundt’s chapter *Die Gebärdensprache* (Sign Language) as *The language of gestures* and titles sections such as *Begriffe und allgemeine Eigenschaften der Gebärdensprache* (Concepts and general characteristics of sign language) as *Concepts and general characteristics of gestural communication*. The term sign language is rarely used in his translation. It has to be mentioned in Meads favor that the translation from German to English was done by others and not the author himself (cf. 1973:55).
new ones that encourage discussions and revive sign language research.

I have never discussed Wundt’s perspective on language with Franz, but it is certainly in his spirit to mention and discuss other views (regardless of their age), as his metaphor encourages to do so.

4. A cognitive-functional approach to signed and spoken languages

Sherman: I don’t know when Franz started incorporating cognitive linguistics and cognitive grammar into his thinking. He doesn’t cite this work in his 1999 article, so perhaps this way of looking at language had not yet influenced Franz. If that is the case, then it is even more remarkable that his thinking was independently heading in this direction. I have been working within a cognitive model of language, specifically cognitive grammar, for more than 30 years. When I read Franz’s 1999 paper, I see distinct seeds of how his thinking is becoming more and more based in a conceptual perspective, as you point out, Andrea.

For example, in that article Franz writes, “My opinion is that we had better look for a functional ‘break point’ during the development of language properties: Let us take the human cognitive system, especially the visual sensory one (presumably shared with [non-human] primates to a large extent), and the main orientation of humans towards this kind of world perception as the base for language. Let us further assume that this perception and the appropriate information processing ‘shows us’ the world as a set of situations which can be described in terms of categories of concepts like ‘action’, ‘participant’, location’, and ‘property’” (p. 9).

Franz then sets up a “problem” for sign linguists: how to account for index and pronoun. He describes the well-known way in which this happens across all sign languages: establishing a locus by indexing (point to) a certain location in space, and then later referring to the referent via indexing the established locus. The problem, he notes, is that a spoken language pronoun such as he “exists as a recoverable, relatively stable form.” When we look at how this works in sign languages, as Franz points out, “you cannot interpret/understand the indexing or the direction of signing unless you remember the established locus and the referent connected with
it. The locus is established earlier in time and must be recalled later in every referring act. In the time between two referring acts, it remains stable only in memory (not in coding)."

Franz then draws the conclusion of sign linguists into sharp relief. Citing Liddell, he points out that many sign linguists would conclude that “the locus serves only to represent the location of the entity, not the entity itself and spatial representations are not part of the grammatical structure of a sentence.” It is, many would conclude, not linguistic. It is gesture. Franz of course disagrees with this. His answer is so simple that in the context of modern debates it seems impossible. But often the simple explanation is the correct one: “Proforms (for absent participants) in sign language can be coded in at least two ways: by indexing or signing toward or at an established locus.”

I wish I could sit with Franz now and discuss that article, and this argument he made more than 20 years ago. With my colleagues I have been developing a framework with the theory of cognitive grammar that I suspect, or certainly I would hope, Franz would find attractive and compatible with his thinking. We analyze the indexing in pronouns as pointing constructions. That is, they consist of two symbolic structures. Here the term symbolic is used in its cognitive grammar sense as an association between a phonological structure and a semantic structure, the two “poles” of a symbolic structure. In pointing, what Franz calls a locus we analyze as a symbolic structure consisting of phonological pole (the location in space) and a semantic pole, schematically some ‘entity’. We call this component a Place, capitalizing the word as a reminder that it is the name of a bipolar symbolic structure; the phonological pole we call location. The other symbolic component of the pointing construction is what we call a pointing device. This component is also symbolic, consisting of a phonological pole (in this case the index finger, but other articulators such as eye gaze or body orientation can serve as pointing devices) and a semantic pole. Our claim is that the semantic function of the pointing finger is to direct attention. Thus, the pointing construction directs conceptual (and often visual attention) to some entity.

Andrea: To my knowledge, Franz was interested in language models and descriptions embedded in a cognitive-functional framework since the very beginning of his research. In 1990 he published his habilitation on “Nichtarbitrarität und Ikonizität in der Syntax” [non-
Language is an “activity of the whole body”. Based on cognitive essentials for language, he framed a syntactic model which should include both the cognitive and coding level. In this framework he discussed fields and types of non-arbitrariness and iconicity (on the syntactic level). Non-arbitrariness refers to linguistic structures which are based on biotic systems such as effects due to principles of perception or information processing; iconicity associates with all language structures that include structure features of the designatum (cf. Dotter 1990:119).

This work does not include sign languages because Franz encountered Deaf people and discovered sign language issues after publishing his habilitation. Yet the theoretical framework he formulated in his habilitation shows the direction of his thought. This direction should remain the same, even when Franz focused more on sign language descriptions and models based on them.

Further outlining of the cognitive assumptions found in Franz’ habilitation, revised and published in 1990, may prove as valuable reference to his view on (sign) language at this point: Cognitive Grammar plays a key role in Franz’ work: “Die Annahmen meiner Arbeit sind mit denen der Cognitive Grammar (Vgl. Langacker 1988) entweder ident oder zumindest kompatibel” (Dotter 1990:x). [Translation: “Assumptions to be found in my work are identical or at least compatible with those to be found in Cognitive Grammar (cf. Langacker 1988)” (Dotter 1990:x)].

Further aspects Franz mentioned will give more insight into his view on language. His thoughts on “indexing and reference” and their connection to the three-dimensional options in SLs exemplify his cognitive-functional view in more detail: Franz describes “reference” as mentioned above (1999 article) once more in the volume Language Typology and Universals (2001:147). In this volume he adds that linguists seem to have spoken language pronouns in mind when they discuss whether the locus or the actual index displays the “pronoun”. Franz sees a possible solution in the inclusion of both locus and reference as typical elements of SLs. He suggests their combination displays the coding. This application of a twofold view on the phenomenon seems to follow a quite similar path as described by Sherman above.
Many years later, Franz expands upon that issues in two articles published in 2016\(^6\). Once again he comes to a conclusion that contradicts linguists who underestimate the role of deictic elements and personal pronouns in SLs: “Die Lage des gemeinten Objekts im Raum wird mittels der Produktion bestimmter Werte der Parameter Richtung bzw. Orientierung kodiert, welche dieses Objekt (oder einen seiner Teile) ausreichend genau identifizieren (von anderen Objekten unterscheiden).” [Translation: “The production of the parameters direction and orientation encodes the position of the object to be referred to in space. Both direction and space encode (part of) the object as specific as necessary for it to be identified (distinguished from other objects).” 2016:446].

Franz further describes that deictic elements do not fulfill the purpose of marking a certain coordinate point in space. Rather, they are used to express communicative aspect i.e., they identify or refer to a(n) (concrete/abstract) object. “Reference” is expressed in the sense that signers introduce not a certain point but simply an “area” which is substantially established by a directional indication. This “Ankerposition” [“anchor position”] is used to express anaphoric reference. It is a constant solely introduced via index that lacks a “Gestaltcharakteristik” [“characteristics of a Gestalt”] linguists mostly expect from (sp.) languages. Franz elaborates that the function of such elements is an “indexical-iconic one” and thus does not display a symbolic coding, but both functions are linguistic ones.

Franz inspired me to apply his thoughts to further sign language phenomena which I only discussed partly with Franz, albeit a discussion in more depth would have been interesting. Franz’s view on reference leads to interesting questions, for example: ‘How far could the semantics of an established locus enhance, narrow or even change’.

Let me explain this point with the following ÖGS-corpus-based example. A Deaf native signer explains an incident he had with his new car. This car cannot be started with an ignition key but with a push-button. The informant gazes at his hands which perform the starting procedure as illustrated in the first two photographs, shaded green blue, when he explains how to start the car. The signer

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\(^6\) Both articles were published in “Das Zeichen” and they provide the preparatory work for the last article Franz published on the sign-gesture discussion.
continues his explanation about the different starting procedures and repeatedly gazes at the location of the ignition key/push button, as illustrated in picture three, shaded red. The signer then continues his story. He went for a hiking trip and when he comes back somebody lets him know that his car is still running. While referring to his car, the signer repeatedly gazes at the established location, partly with and partly without manually indexing to this location, as illustrated in the last two pictures, shaded blue.

**Figure 2: Indexing/Reference**

<table>
<thead>
<tr>
<th>Illustration 1 and 2</th>
<th>Illustration 3</th>
<th>Illustration 4 and 5</th>
</tr>
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<tbody>
<tr>
<td>starting the car by using an ignition key</td>
<td>starting the car by using the push-button</td>
<td>Any sign accompanied by gaze-to-button/key</td>
</tr>
<tr>
<td>gazing to the established located area – with/without indexing (by hand) to that area</td>
<td></td>
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The narration was annotated by three Deaf annotators who agreed that the first “gazing at the hands” goes along with the car-starting activity, the “gaze to button” is associated with the starting process and the final “gaze to the same location” is associated with the car, not the key/button position.

Such examples encourage to discuss “pointing/reference constructions” in more detail, based on more corpus-data from different SLs as well as the interpretation of people using these SLs. The example outlined here shows that establishing a location can go along with a “located activity”. It illustrates that the semantic-pragmatic aspect of an established location could be enhanced or even transferred to areas contiguous semantically-pragmatically.

The example also reminds me of an aspect Franz never became tired of advertising: He believed a good language model is developed on all possible language instances (i.e. corpus-data) functionally interpreted by SL users. Some basic cognitive (syntactic) language models are described in Franz’s habilitation (cf. Dotter 1990:67/68).
Franz premises prototypical categories of perception which display the core of the humans’ biotic being. Such categories are action, relations/actions between humans or humans and animate/inanimate objects as well as orientation within space and time. ‘Configurations’ are to be understood as abstractions of particular ‘situations’. They are non-linear arranged and perceived as ‘structured Gestalt’, which means, “daß annähernd simultan sowohl die ‘Konfigurationsgestalt’, als auch das ‘Konfigurationsmuster’ ihrer konstituierenden Elemente erfaßt werden, wobei außerdem noch bewußte Operationsmöglichkeiten pragmatischer Natur bestehen” (Dotter 1990:37). [Translation: “that both the ‘configuration gestalt’ i.e., the gestalt to be configurated and the ‘configuration pattern’ of its constituting elements i.e., the pattern of configuration of its constituting elements, are perceived nearly simultaneously, with additional pragmatic options individuals have to consciously operate on them” (Dotter 1990:37)]. He continues: „Ich definiere nun die Konfiguration einschränkend sprachbezogen als die Menge derjenigen kognitiven Elemente, die aus einer konkreten Situation mittels Aufmerksamkeitssteuerung herausgehoben und sprachlich kodiert werden“ (Dotter 1990:37). [Translation: “I define language-bound configuration as the amount of cognitive elements that, through direct attention, are segregated from a concrete situation and encoded as language” (Dotter 1990:37)]

Franz illustrates some basic configurations of prototypical models: The “Apellmodell” [appeal model] and the “Benennungs-/Zeigemodell” [naming-/depicting model] are constituted of a single “Grundgröße” [basic quantity]. Prototypical models such as the “Intransitives Modell” [intransitive model] and the “Transitives Modell” [transitive model] are constituted of two or more “Grundgrößen” [basic quantities] (see Dotter 1990:33-76 for a more detailed description). He adds that some of his cognitive basic models are closely related to speech acts, since language not only requires perception and information processing but also transfer and switch of information i.e., communication. The acceptance of several

7 Franz defines “Grundgrößen” [basic quantities] as cognitive elements that are perceived easily based on their salient gestalts or features of gestalts in nature (that is, with regard to human perception they are relatively independent and delimitable processing units). Examples are persons or objects. States and actions can be perceived as “Grundgrößen” as well although they are more complex.
cognitive models leads to the assumption that different sentence types are not based on the same underlying sentence pattern. On the contrary, sentence types are closely related to their functionality and are phylogenetically developed based on their functional use (Dotter 1990:58).

In his habilitation Franz added no illustration that shows a cognitive basic model/schema on indexing/reference. Therefore, I would like to illustrate one based on his ‘model blueprints’ (Figure 3) mentioned above (see Figure 2).

**Figure 3:** Cognitive schemata of *indexing/reference* based on Fig. 2

<table>
<thead>
<tr>
<th>Cogn. Schema of Illustrations 1 and 2</th>
<th>Cogn. schema of Illustration 3</th>
<th>Cogn. schema of Illustrations 4 and 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Diagram 1]</td>
<td>![Diagram 2]</td>
<td>![Diagram 3]</td>
</tr>
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</table>

The first cognitive schema in Figure 3 refers to Illustration 1 and 2 in Figure 2. The configuration (encircling oval) constitutes the internal structure (illustrated by the small encircled blue rectangle) of an action (here: turning/pressing, illustrated by the dark blue square), a participant (here: the ignition key/push-button, illustrated by the first dark-blue dot) and a second participant (here: the agent who is performing the action, illustrated by the second dark-blue dot). These three components are interrelated (illustrated by the
connecting lines). Based on Franz models I suggest the configuration also constitutes what Franz labeled “Zeigefunktion” [indication function] i.e., “displaying/indexing” the internal structure (illustrated by the double arrow). In the signed example (see Illustration 1 and 2 of Figure 2) both the “spatially located action” and the gaze directed to this located action fulfill this function.

The second schema of Illustration 2 shows that any association of elements relating to any participant, action, or feature with the action of turning on the key/pressing the button, can be indicated through devices such as gazing to the established area of the located action, shown in Illustration 3 of Figure 2. The already established area remains (grey elements). Any elements (participants, actions, features – listed elements in the encircled, blue-colored rectangle) associated with the turning-on-the-key/pressing-the-button action, located at the established area, are related via devices bearing an indicating function (illustrated by the blue-colored double arrow). In Illustration 3 (of Figure 2) this function is expressed by gazing to the established area.

The third cognitive schema of Illustration 4 and 5 demonstrates that the semantics associated with the established area can change. The area can be broadened, narrowed or even transferred into a contiguous meaning. In Figure 2 the meaning of “being associated with turning on the key / pressing the button” (light grey dots and rectangle in the encircled rectangle) changes to “being associated with the car, the object which is turned on by the key / by pressing the button” (dark grey dot). Gazing or indexing by hand serves as device to indicate the function the established located area has (illustrated by the blue-colored double arrow).

As mentioned above, these cognitive schemata are not illustrated by Franz himself. Yet I imagine Figure 3 to be the outcome if we had discussed what assumptions his thought would lead to.

4.1 Digging deeper into sign phonology

**Sherman**: I would love to have a weekend retreat, with a cozy fireplace and good beer, wine, and food, to discuss with Franz our perspective on where sign language research should go if we adopt a cognitive-functional framework. There are several areas that I feel Franz would have important insights to share.
I have been attempting to consider what a fully cognitive model of sign phonology might look like. I start with a foundational notion within the field of cognitive grammar, that of the *usage event*, instances of language use in all their complexity and specificity. Usage events consist of "both conceptualization and means of expression. On the expressive side, it includes the full phonetic detail of an utterance, as well as any other kinds of signals, such as gestures and body language (conceivably even pheromones). Conceptually, a usage event includes the expression’s full contextual understanding—not only what is said explicitly but also what is inferred, as well as everything evoked as the basis for its apprehension" (Langacker 2008, 457). Usage events are clearly already quite broadly conceived. I take the notion a step further by observing that usage events are a class of perceptual events. I would claim we must acknowledge that everything we perceive is at least potentially symbolic. The most basic characteristic of the phonological pole is that it is capable of being perceived. We humans regard every perceptual event as meaningful, and thus consisting of a “phonological” pole (the perceptual event) and a semantic pole (its meaning). Here meaning is considered in quite an expansive view as well, basically subsuming the function, purpose, or significance of this signal that we perceive. The basic goal of any organism is to make sense of its environment so that, in one way or another, it can control its environment. In fact, this basic goal is encapsulated in cognitive grammar as the *control cycle*: a cyclic process involving the striving for control over knowledge (epistemic control) and control over the world (effective control) (Langacker 2013). As we perceive more and more such events, we begin to categorize and schematize them. Certain signals are categorized as the same — the same perceptual event but also the same meaning. Others are categorized as the same perceptual event but with a different significance.

For signed languages, I suggest we must also include conceptual archetypes in our model of phonology. Conceptual archetypes are common and basic experiences; they are archetypal perceptual events and their meanings. Langacker (2000; 2008) lists several such conceptual archetypes. Three basic conceptual archetypes are: the conception of a physical object, the conception of a physical object occupying a location in space, and the conception of an object moving through space (i.e. changing location through time). Others
include the human body, the human face, a whole and its parts, a physical container and its contents, seeing something, holding something, handing something to someone, exerting force to effect a desired change, and a face-to-face social encounter. These sources of conceptual archetypes are of course symbolic: they are not only conceptual, they are also perceptual. They derive from common perceptual experiences of actual objects, in real locations, moving (with all of the dynamic characteristics of movement) through space.

I want to claim that in order to begin a cognitive phonology, we must start with conceptual archetypes and symbolic structures. One might then ask, what does this have to do with sign phonology? These experientially grounded conceptual archetypes are also the basis of phonological archetypes: handshape, location, and movement.

One implication of beginning with archetypes concerns location. A usage-based, experiential model of language proceeds from the bottom up — from actual material instances of language use to schemas and pattern of schemas. Locations are not in themselves perceptible. Locations are only perceived when they are associated with some thing: this is revealed in the description of the conception of a physical object occupying a location in space. It would a mistake, I believe, to consider locations as phonological primes without recognizing that locations are only identifiable if something occupies the location.

Another implication flows from this essential realization: As Franz observed, a common, cross-linguistic function of locations in sign language pertains to reference, both deictic (in the spatiotemporal surroundings) and anaphoric (in the linguistic context) reference. This function of locations in space is a natural consequence of the fact that entities occupy and identify locations. In sign languages, referential entities occupy phonological locations.

Franz would probably be quick to point out that I am implying that the phonology of sign languages, the basic building blocks that sign linguists have claimed are, like the phonemes of spoken languages, meaningless, are actually symbolic in the cognitive grammar sense, consisting of a semantic pole and a phonological pole, a conceptual side in addition to an expressive and perceptual side. I would tell him, “Yes, that is exactly what I am claiming.” Of course, the semantic pole may eventually, through usage, attenuate until perhaps there is virtually no meaning left, until we do indeed
Language is an “activity of the whole body” — what we might call phonogenesis. I suspect Franz would not only agree with this point of view, but would have some astounding insight for how to propel the idea forward.

I believe this tentative model of sign phonology also has implications for the debate about language and gesture that so concerned Franz. For the most part, elements of sign languages that are relegated to gesture are associated with certain perceived problems with location. As Franz pointed out, a major problem for researchers in the Gesture School pertains to countability: the assumption is that, as a phonological parameter, locations should be countable as items in a phonological inventory. This raises several questions. One concerns our understanding of locations as items in the inventory: are they instances of locations, or are they abstractions from instances, schemas of locations. Another concerns the assumption of countability. Our answer surely must take into consideration the material that forms the perceptible basis of phonology. As Stokoe (2001) observed:

> When the materials of languages are as different as sounds and visible movements, and when the channels for receiving them are as different as hearing and seeing, the differences cry out to be noted, and they have something to tell us.

There is much to explore, describe, and rethink, and I believe this is what occupied Franz in his challenge of the Gesture School. When a theoretical model leads to the conclusion that all elements of spoken language phonology are linguistic, but that some elements of sign language phonology are linguistic and some are gestural, I am not just curious, I am skeptical. When I find out that the assumptions on which that model was built derived from analysis of spoken language, my skepticism turns to suspicion. Like Franz, I am skeptical about the transfer of findings from spoken language to sign language when the findings tell us that an aspect as essential to language as reference, to name just one use of location, is in fact not language.

I feel my current thinking about sign language and gesture would be quite compatible with Franz’s ideas. Like Franz, I have serious issues with the current thinking about the relation between sign language and gesture. The eminent gesture researcher Adam Kendon has also expressed similar concerns (Kendon, 2017:30),
writing that “‘gesture’ is so muddied with ambiguity, and theoretical and ideological baggage, that its use in scientific discourse impedes our ability to think clearly about how kinesic resources are used in utterance production and interferes with clarity when comparing signers and speakers.” Instead of gesture, Kendon proposes talking of ‘visible bodily action’.

The cognitive model that I described above in offering my preliminary ideas about a cognitive sign phonology offers a new way to reframe our understanding of sign and gesture. The world comes to us unlabeled perceptual events. We perceive not “sign” or “gesture”. Rather, we perceive these perceptible events – Kendon’s visible bodily actions. Only then are these actions, as perceptual events, categorized by language learners. That is, these categories are not given as objective reality; they are imposed on the perceptual events by language users. Consider the following from Stokoe’s original treatise on sign language structure (1960:6-7):

To take a hypothetical example, a shoulder shrug, which for most speakers accompanied a certain vocal utterance, might be a movement so slight as to be outside the awareness of most speakers; but to the deaf person, the shrug is unaccompanied by anything perceptible except a predictable set of circumstances and responses; in short, it has a definite ‘meaning’

Having both a perceptible form and a meaning, the shoulder shrug poses a categorization problem to be solved by the deaf observer: how does this symbolic structure fit into his emerging and dynamic understanding of communicative performance? The units that compose an individual’s linguistic knowledge (i.e., grammar) are related to actual expressions that are perceived in usage events by the process of categorization.

Beyond a usage based model, Franz urged us to adopt what I would call a user-centered deaf viewpoint. I would claim, and I think Franz would agree, that the key to answering the question “sign or gesture” lies not with the observed, but with the observer. It requires that we stop assuming that these events form natural categories—that is, categories that exist in nature, independent of language users. Instead we must reframe the question and adopt an approach which acknowledges that deaf observers categorize perceptual events.

Consider an example offered by Clifford Geertz (1973:6) of how a visible perceptual event is categorized:
Consider two boys rapidly contracting the eyelids of their right eyes. In one, this is an involuntary twitch; in the other, a conspiratorial signal to a friend. The two movements are, as movements, identical; from an I-am-a-camera “phenomenalistic” observation of them alone, one could not tell which was twitch and which was wink, or indeed whether both or either was twitch or wink. Yet the difference, however unphotographable, between a twitch and a wink is vast; as anyone unfortunate enough to have had the first taken for the second knows. As Ryle points out, the winker has not done two things, contracted his eyelids and winked, while the twitcher has done only one, contracted his eyelids. Contracting your eyelids on purpose when there exists a public code in which so doing counts as a conspiratorial signal is winking. That’s all there is to it: a speck of behavior, a fleck of culture, and—voilà!—a gesture.

In the context of understanding sign and gesture, we might rephrase Geertz and say: the same speck of behavior with a fleck of cultural, contextual, and background knowledge and the act of categorization by the deaf observer, and—voilà!—sign (in this case, a grammatical facial display). Like Stokoe’s shrug and Geertz’s wink, the visible bodily actions of usage events are the very stuff from which language is made. The labeling of visible bodily actions as sign or gesture is, as Geertz would say, a matter of determining what counts as what. Language, gesture, and sign are historical-cultural constructs, folk classifications that may or may not be relevant to deaf language users.

I am coming to the conclusion that the question of what is sign and what is gesture may not be a scientific but an ethnoscientific question. The answer lies not in finding observable, I-am-a-camera photographable differences between “sign” and “gesture” independent of who is doing the observing and classifying; rather, it is a matter of what counts as sign or gesture from the deaf person’s point of view.

I wonder what Franz would say about all of this.

4.2 Digging deeper into sign syntax

Andrea: During the last years Franz restarted working on a language description model. Unfortunately, he could not elaborate it in more detail or apply it to a particular language such as ÖGS. This model should include both a cognitive and a language specific level.
Both levels are in close exchange with each other. The cognitive level is three-dimensional in its nature and displays a conceptual level. It includes the “scene”, spatial and temporal orientation as well as pragmatic and contextual factors. As illustrated in Figure 4, Franz’s draft shows that the “scene” could be a situation where ‘someone meets another person’, the spatial orientation of a place such as ‘in front of the school’, and the temporal orientation of a time such as ‘after school’. Pragmatic and/or contextual factors such as ‘the person s/he meets is special for some reason’ could cause changes on the language coding level. The language specific level involves different categories in different (spoken and signed) languages found via linguistic analysis. The language specific level is two-dimensional in its nature and contains sequential-linear as well as simultaneous language coding possibilities.

**Figure 4a**: Dotter’s model on language description, shown by a German example

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8 Dotter’s model draft has been redesigned and translated into English by Andrea.
Figure 4b: Dotter’s model on language description, shown by a German example in which a pragmatic fact changes the coding.

These scenes-framing model demonstrates that the linguist Franz Dotter aimed to model the relationship between conceptualization and coding in spoken and sign languages. He recommended linguists to “*use a heuristic script/scene/frame/construction method to model conceptualization as a basis of comparison. To these conceptual frames*
the coding elements as well as their structure, variation in form and ordering will be directly related” (Dotter, 2008). 9

5. Nonmanuals in sign language research

Franz: “[...] typology has to cover both SpL and SL phenomena. This is much easier if we take a perspective on language as an “activity of the whole body” (Dotter 2018:56).

Andrea: Over the last years of my research, I have focused more and more on nonmanuals i.e., movements of the face, head and body and their inclusion into the entire signed production/perception as well as their role in signed discourse. I constantly had intensive exchange and discussions with Franz on this issue which led him to mentor my FWF-project on investigating the contribution of nonmanuals to ÖGS clauses. Discussions with him and his support led to the development of a syntactic model for describing nonmanuals in ÖGS (cf. Lackner 2019a).

Discussions on this issue were based on my description of several functions associated with head and body movements by Deaf ÖGS-signers. I started to integrate my descriptions with Langacker’s cognitive domains (cf. Langacker 1987/2013) and Lehmann & Maslova’s (2004) description of functional domains which comprise sets of concepts and operations represented in (spoken and signed) languages (cf. Lackner 2017:25). Franz strongly encouraged me to describe functional (sub-)domains I found in the ÖGS-corpus in more detail. I followed this advice in my publication (cf. Lackner 2017:27-35 and 2019a).

The exchange with Franz and his influence or, let us say, inspiration as a very critical thinker on numerous issues reassured me in designing a useful model. The model is based on iconic graphic representations of sequential and simultaneous syntactic structure slots to be filled with manual and nonmanual elements. The slots aim to represent every clause construction/type to be found in a particular SL. To sum up “[the] use of such a descriptive tool of clause-

9 The constant discussion of these deliberations led to Franz Dotter mentoring Andrea Lackner’s project on investigating the contribution of nonmanuals to ÖGS clauses by discussing and supporting her development of a model for describing ÖGS, embedded in a cognitive-functional framework (cf. Lackner 2019a).
like-units’ structure allows [linguists] to find patterns of the sequential-simultaneous distribution of elements, i.e. which kind of elements tend to fill which slots, how they co-occur with other nonmanual elements and what role(s)/functions(s) they bear. [...] In sum, the syntactic sequential and simultaneous slots of each type show which means (nonmanuals, lexicon, information of argument structure, pragmatic/discourse/interactional context) are required to functional interpret particular clause-like-units by sign language users” (Lackner 2019a: 74-75).

As mentioned in the introductory chapter, Franz (2018:56) continuously said that language is an “activity of the whole body”. Thus, we should rethink why we evaluate elements as linguistic or non-linguistic. These thoughts lead back to the gesture-sign-discussion. Franz promoted Deaf language users as valuable resource in the evaluation process of linguistic and non-linguistic elements in SLs. Both of us agree that the criteria of analysis require the systematic recognition of manual and nonmanual forms, their systemic association with (semantic-pragmatic) meaning/functions in different contexts and sign language user’s subjective awareness of usage rules. Such a process will aid to gain more information on variation and acceptability as well as on the judgement of how strongly specific manual and nonmanual elements are integrated with the signed discourse structure (see also Lackner 2019a and 2019b, notes due to exchange with Franz Dotter).

Sherman: I knew of Franz’s interest in nonmanuals, and of course of your important work in this area too. In fact, your research on nonmanuals has been an important influence on some recent work I did with my former doctoral student, Dr. Sara Siyavoshi.

It seems to me that nonmanuals still require much more careful analysis. I also feel that they pose a unique challenge for sign phonology; it may be my own lack of expertise in phonology, but nonmanuals seems to be an uncomfortable appendage in the current models of sign phonology that have been inherited from spoken language phonology. Maybe this is why Franz was intrigued by them. What do you think, Andrea?

Andrea: Right, you put it in a nutshell.
Sherman: In the very preliminary thinking I and my colleagues have begun on applying cognitive grammar and cognitive linguistics to sign phonology, which I mentioned earlier, we are proposing, following Langacker (2001), conceptualization and expressive channels (Langacker uses the term ‘vocalization’ but obviously this has to be changed for sign languages). In his model, the expressive channels are segmental content (a core channel, for various reasons that he explains), prosody, and gesture. We are proposing that for sign languages, the core channel is manual activity; a second channel is face and head, and a third channel is body. We also bring into this model two general asymmetries of cognition and language structure: autonomy and dependence, and baseline and elaboration (Langacker, 2016). A baseline structure is one that is more substantive, already established or in place, and under control. Elaboration is an operation consisting in augmentation or adaptation; when it pertains to conceptualization it requires additional processing activity. Elaboration as an operation requires something to operate on, and this is the baseline. When a baseline structure is elaborated, it creates a new baseline structure (the former baseline plus its elaboration form a new, higher-level unit). Baseline and elaboration applies to both conceptualization and expression, in other words to what in cognitive grammar we call the semantic and the phonological poles of the linguistic symbol. Autonomy and dependence refer as well to asymmetries. An autonomous structure has the potential to be manifested independently. A dependent structure requires the support of an autonomous one for its full manifestation.

As applied to sign phonology, my evolving view now is that the hand, its shape, its orientation, and its location is a baseline structure. Various elaborations of these aspects is possible. Elaboration is prototypically a change, and operation or activity. In sign phonology this is provided by movement: an elaboration of shape results in handshape change, an elaboration of orientation results in a change in orientation, and an elaboration of location results in a change in location (one example would be what we call a path movement).

It seems to me that prior models of sign phonology assume a “building block” approach: the phonological units are discrete components that are combined, compositionally. What this misses is the nature of the hand and its intrinsic aspects of shape, orientation,
Language is an “activity of the whole body”

and location — and here I think Stokoe was correct in his use of that term ‘aspects’, the equivalent to inherent properties of an object such as shape or color — and movement as a non-substantive elaboration. Movement has to operate on something, some thing has to move, and that more substantive element is provided by the baseline hand.

The manual channel (somewhat analogous to Langacker’s segmental content channel, although I would make no claim about whether structure at this level is segmental or not) is a core channel because it is the channel that provides lexical content (and here I would include not only lexical but also grammatical signs). On the other hand, the face has a different status. Primarily, it seems to me, the face is conceptually dependent: facial displays serve to elaborate content that is expressed in the core manual channel. Very little, if any, truly lexical material is expressed solely on the face. When we focus only on the phonological pole of the face, the situation is more complicated and not one that I can delve into here. In a sense, I would argue that the face/head channel is phonologically dependent. But this dependence is of a different nature than the dependence of movement: as I said, a movement requires something to move. An example from spoken language provides an analogy: prosodic stress requires the sonority provided by a vowel. We cannot articulate stress without some carrier; stress, in this analysis, is an elaboration of the vowel, rather than a substantive component that is combined, in building block fashion, with the vowel. The same is true for movement as an elaboration. We can call this intrinsic dependence. The face and head are clearly different in this respect: I can articulate a facial display such as squinting my eyes without any manual activity at all. The face and the hands are independent articulators in a way that the vocal tract articulators are not. Nevertheless, in use the face and head conventionally modify manual material, and in this sense they are dependent on the manual channel.

However, I do think that baseline-elaboration can apply in a revealing way to the analysis of facial displays. If we consider the eyes and a “neutral” position of eye aperture during signing as a baseline, recalling that elaborations are operations (and often described with verbs, e.g., we stress a vowel), then various changes in eye aperture are elaborations (we squint the eyes).

My colleagues and I are still working on this, and how dearly I would have loved to discuss this with Franz. At this stage our ideas
Sara and I have a paper under review that applies cognitive grammar to the analysis of two types of facial displays: brow furrow (knitting the forehead, pulling the eyebrows together) and what we call “horseshoe mouth” and is often called in the U.S. a frown (pulling the corners of the mouth down, resulting in a horseshoe shape). We relate these two facial displays to the control cycle. We claim that brow furrow expresses effective control, and the horseshoe mouth expresses epistemic control. Of course, these displays also interact in complex ways with other facial displays, as you have documented in such exquisite detail, Andrea. Two displays we see, especially with horseshoe mouth and epistemic control, are changes in eye aperture (often squinting) and various head nods or back-and-forth head wags. To return to baseline and elaboration within the face/head channel, I would suggest that the horseshoe mouth expresses an epistemic assessment of the propositional content expressed in the manual channel (either by the signer or, interactionally, by the interlocutor). The change from a neutral baseline mouth to the horseshoe mouth is thus an elaboration. This structure, the horseshoe mouth, forms a new baseline. Epistemic assessment as expressed by the horseshoe mouth does not alone tell us the result of that assessment: whether the signer accepts or rejects the proposition, or the strength of acceptance/rejection. These are elaborations, provided by the eye display and head movement. This is clearly a preliminary discussion, but I think it merits further exploration.

Andrea: Indeed, the analyzation of assessments on hypothetical thoughts expressed by ÖGS-signers shows the production and perception of several nonmanuals such as diverse head movements, mouth frowning, nose wrinkling or brow movements/positions. Within the annotation process these movements/positions were associated with the signers’ attitude towards the produced proposition (cf. Lackner 2017:163-184). Mouth frowning occurs in various patterns in ÖGS. It can be articulated in several ways and degrees (mouth opened or closed, one or both corners of one’s mouth moved, corners of one’s mouth slightly or strongly frowned downwards). Its production can be on its own or accompanied by other nonmanuals and/or manuals such as KNOW-NOT. In several
cases *mouth frowning* precedes, intervenes and/or follows a proposition to be evaluated. In other cases, it accompanies an entire proposition to be evaluated. Deaf annotators primarily associate it with being insecure, uncertain/doubtful, unaware, or unknowing of something. Certainly, deeper investigation into usage patterns and functions of such nonmanuals in different sign languages is required in order to gain profound knowledge of such nonmanuals.

These considerations lead me to the conclusion that I agree with Franz and Sherman: Nonmanuals need to be examined in more detail to attempt a description of what constitutes (sign) language in an integral way.

Surely, such an approach cannot be based on the description of nonmanuals as independent “building blocks” of sign languages. My findings on several nonmanual movements in ÖGS suggest that a few of them occur independently (with their own meaning). Many of them are closely interwoven with other manuals and/or nonmanuals. Others again are – as already outlined above – calibrated on the signing space and vary according to the manual/non-manual articulator they are produced with. Thus, let us keep on looking on signed and spoken languages in the way Franz demands as “Language as an ‘activity of the whole body.’”

**Sherman:** In preparing my contribution to this memorial I read through some of the (too few) email messages from Franz that I had saved. In one from 2014 Franz wrote, “almost nobody understands abstraction in science. Almost no one is aware of the fact that we need a standard of comparison for comparing languages which abstracts from modalities, i.e. is a ‘third thing’ being in equidistance to sign and speech. What they do is fall back to the concept ‘language status has what we can find in categories of speech.’” Franz showed us how to recognize the ways in which sign languages are similar to spoken languages, while also seeking to reveal and respect the important ways in which they are different – and the significance of those differences for linguistic theory.

**Andrea and Sherman:** We both deeply feel the loss of Franz Dotter as a friend, a colleague, and as a valuable contributor to the field of sign language linguistics. Our lives were enriched by our interactions with Franz. Franz’s commitment to the deaf community was
incredibly admirable. He based his actions on his understanding of justice for everyone to have the right to grow up with – even more, to freely choose – their native (sign) language and culture. This vision led him to be one of the first Austrian university employees (and up until now the only Austrian Associate Professor) who investigated in ÖGS and who established the Center for SL and Deaf Communication at the University of Klagenfurt, where he employed Deaf natives and supervised Deaf PhD graduates. His fight for Deaf Rights lasted many years but never withhold him from asserting Deaf rights against diverse institutions and courts. Official recognition and the possibility to teach SL in schools was a matter close to his heart. His initiative and motivation are important milestones in translating this matter into practice.

We both feel that Franz’s insights and views on sign linguistics and Deaf rights are needed now more than ever, making his early and unexpected departure all the more tragic. Franz, we miss you.

(Franz Dotter - 1948 – 2018)
6. References


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Language is an “activity of the whole body”


