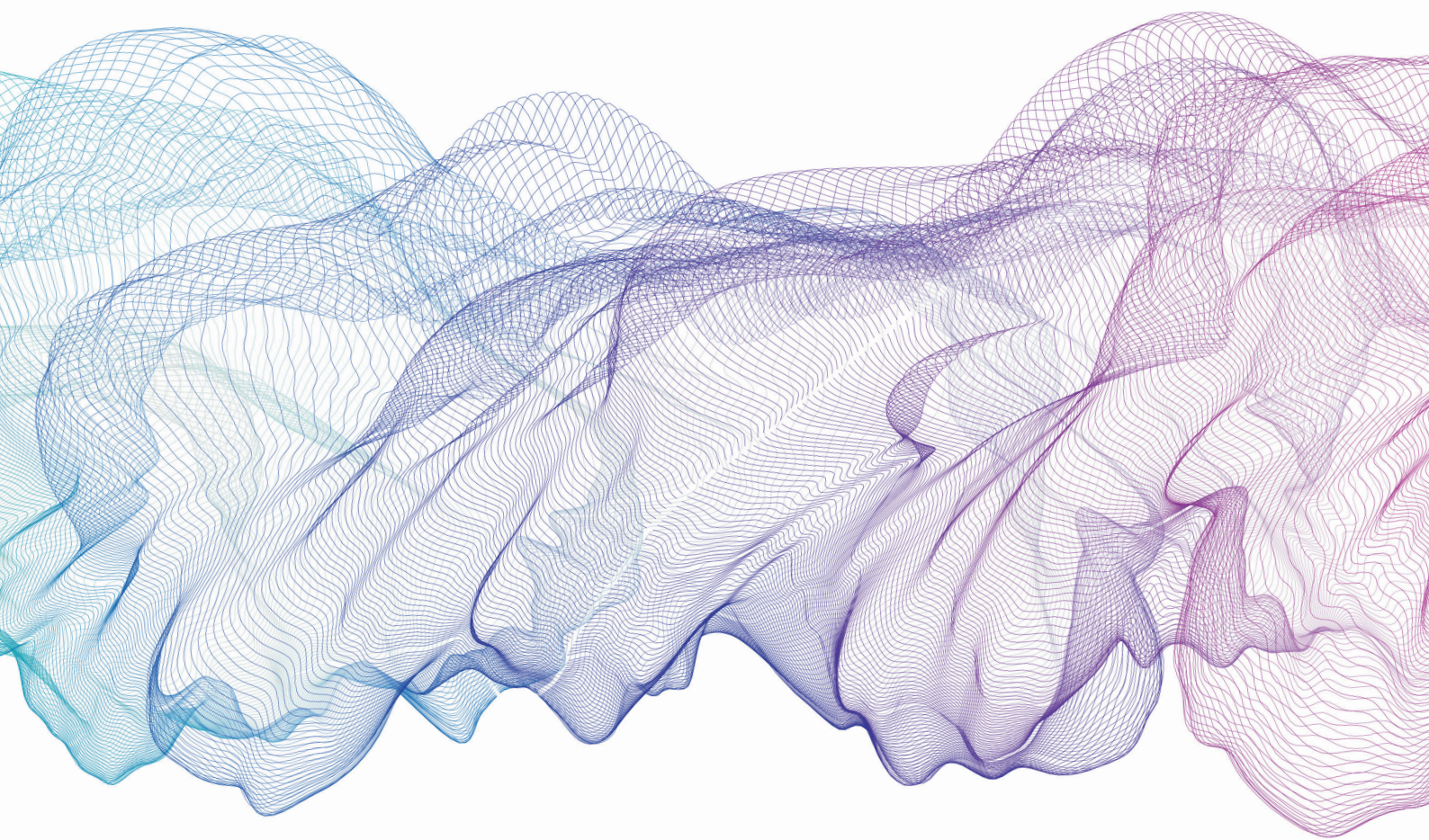


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Most Characteristic Elements of Sign Language Texts Are Intricate Mixtures of Linguistic and Non-linguistic Parts, Aren't They?

Franz Dotter *

Abstract

There is a considerable number of sign language linguists who accept as proven that essential parts of sequential-simultaneous constructions in sign languages (henceforth: SL) are “gestural” and therefore do not have language status, i.e. are “non-linguistic”. This judgement applies to all elements of SL where spatial parameters are used to code indexical and iconic meanings or spatial relations. The respective argumentations contain many methodologically questionable steps and are particularly led by a strong bias towards a spoken language (henceforth: SpL) perspective. This bias includes an uncritical adoption of the results of research on gestures to SL (“uncritical” means that the inconsistencies in gesture research itself were not considered); despite the fact that gesture research was performed exclusively on SpL. Therefore, a discussion of the assumptions and analysis processes concerning SL is urgent. In order to overcome the SpL bias in SL linguistics we need a typological model which takes both SpL and SL as instances of “language” in different modalities. By abstracting from both types of language, a new extended model of “language” can be developed. I will perform my analysis from the perspective of a typological language model which comprises both SL and SpL in equal measure. A comprehensive typology assumes that every language shows those categories which its users select as the best suited for the chosen modality or modalities. It

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cannot devalue visually appropriate ones against acoustically appropriate ones. By this I want to prove that the assumption of an enormous number of gestural components in SL texts, intricately combined with language elements – concerning essential areas of SL grammar – is untenable.

The methodological shortcomings of the “Gesture School”¹ to be indicated are: The authors neither apply a modality-independent model of language, nor transfer “gradience” and “conventionalisation” to SL conformly to typology and semiotics. Additionally, we find no consideration of:

- the coding conditions and possibilities of SL, especially related to indexical and iconic (in contrast to symbolic) morphemes
- the relation between gradient production and categorical cognitive processing in all languages
- the contrast between listability and the application of rules (by inadequate application of the listability criterion against SL morphemes like classifiers, ignoring the existing grammatical rules for them).

1 The Extent of the Issue

1.1 Phenomena Evaluated as “Gestural”

The judgement “gestural”/“non-linguistic” concerns:²

1. Phenomena of sequentially and/or simultaneously produced, detailed visual codings in verb phrases. Ferrara (2012, 26f) gives the following list of terms used for SL codings involving spatial and/or iconic parameters, therefore containing “non-linguistic” elements: “(multi)directional verbs”, “verbs of motion and location”, “spatial-locative predicates”, “spatially descriptive signs”, “classifier (predicates/constructions)”, “polymorphemic verbs/predicates”, “polycomponential/polysynthetic signs”, “productive signs/lexicon”, “depicting verbs/signs”.

¹ I am not sure that there is a completely homogeneous school of thought which we could call the “Gesture School”. Nonetheless I will use this term as an abbreviation for the group of authors advocating the “gestural” perspective on SL described in paragraph 1.1.

² Concerning nonmanuals, Pendzich and Herrmann state: “Nonmanual actions articulated by the body, head, and face fulfill various functions, either as gestural elements or as linguistic markers operating on all levels of sign language grammar. Thereby, two characteristics are particularly decisive: nonmanuals are multifunctional and they may simultaneously combine with manual components as well as with further nonmanual features [...]” (Pendzich and Herrmann 2015) For grammatical functions of nonmanuals cf. Lackner 2017. Stamp and Sandler 2016 argue for a view of SL structures emerging from bodily actions (cf. also Sandler 2015) and Constructed Action which – after an adequate restriction of this notion’s scope, following its use in SpL research – should really be evaluated as gestural.

2. Phenomena of coding reference via spatial parameters

- The category INDEX, interpreted as completely equivalent to the pointing gesture in SpL, and similar signs used with respect to referencing (e.g. possessive pronouns)
- localisation of referents for anaphoric identification (“loci”)
- role change.

Taking this extent of allegedly “gestural”/“non-linguistic” elements for true, there would hardly exist any longer SL text which did not show complex sequential and simultaneous combinations of linguistic and gestural/non-linguistic elements:

We find that one-third of the core elements in the single clause-like units in these Auslan narratives are expressed via pointing signs, depicting signs, gestures, and enactments, in various orders. (Hodge and Johnston 2014, 262)

Consequently, SL texts become “blends”:

[...] blends, that is, as expressions in which gestural and linguistic elements are co-produced within a single sign” (Özyürek 2012, 637)

This statement assumes that linguistic and non-linguistic elements constitute a “sign”. It does not clearly say whether the gestural element is a sign. If we assume that (as the more probable solution)³, the statement has to be read as: ‘linguistic and gestural signs constitute x-signs’. No one has yet answered the question whether these x-signs signs could be evaluated as signs of language.⁴ Only if we approve that, we can call SL texts as a whole “language texts”. Choosing a negative answer, we would have to state that what we call SL-communication or SL-texts run with a permanent change between language and non-language signs.

The criterial properties of SL elements to be evaluated as “gestural” are “gradience” (Liddell 2003) or gradual/complete lack of “conventionalization” (Johnston and Schembri 2010); a third – less strictly applied – criterion is the similarity of SL productions to spoken language gestures (Cormier 2014, 3).

³ If we would assume that the gestural element does not have sign status, we would have to argue that the combination of a sign and a non-sign constituted a sign again.

⁴ Liddell (2003, x) uses “language signal” as a cover term for linguistic and gestural elements as he interprets them.

1.2 Illustrative Examples for “Gestural Analysis” of SL Utterances

1.2.1 Locative Arrangement

| hand 1 | |
|-------------|---------------------------|
| handshape | gestural = non-linguistic |
| orientation | gestural = non-linguistic |
| location | gestural = non-linguistic |
| hand 2 | |
| handshape | gestural = non-linguistic |
| orientation | gestural = non-linguistic |
| location | gestural = non-linguistic |
| TABLE | |
| [STANDS] | |
| ASIDE | |
| WALL | |

Table 1: Locative Arrangement

1.2.2 Ditransitive Verb

| Starting position | | Movement | End position |
|-------------------|------------------------|-------------------|----------------------------|
| handshape | location 1: linguistic | non-linguistic | location 2: non-linguistic |
| orientation | | non-linguistic | |
| location | | | |
| movement | I | linguistic | HIM/HER |
| direction | | non-linguistic | |
| | | GIVE (TO) BOOK | |

Table 2: Ditransitive Verb

The examples show that central elements of SL, the equivalents of which are coded by language elements in SpL, are ascribed the status of “gestural”. It is not so easy to prove that “gestural” is equivalent to “non-linguistic” because the “Gesture School” representatives have partially adopted the concept of “continuum” from Kendon and McNeill and use cover notions like “language signal” (cf. Liddell 2003). But while McNeill – before taking over Liddell’s view – positioned SL as one pole of the gesture-

language continuum, stating that SL had all language properties, the Gesture School either does not discuss the issue or puts the gesture-language distinction *into* SL. That is, for the adherents of the “Gesture School” SL are no longer the pole of Kendon’s continuum but contain many phenomena which are located outside of the language pole. Therefore, we can at least indirectly conclude that the respective SL elements (cf. 1.1) do not have language status.

Clearly, the ascription of “gestural” at first depends on the understanding of the word’s meaning, its role in a model of language and/or communication and the operational methods or criteria by which scientists can identify “gestural” elements. The first task of a critique therefore is to look for the meaning of this notion:⁵

1.3 A Recent Example for the “Gestural” Perspective on SL

Jantunen proposes a modality-independent definition:

[...] , the term ‘gestural’, [...] , refers broadly to any sort of expression in signing or in speech that “can’t be analysed in discrete, categorial terms” (Kendon 2008). In other words, it refers to the relatively gradient (i.e. uncategorial) and unconventional aspects of language production. (Jantunen 2017, 66)

Here we find all central elements which are used to construct the meaning of “gesture”, namely discreteness vs. gradience, categorial vs. uncategorial and conventional vs. non-conventional. We will see below that some gesture researchers recently formulated the idea that gestures (in SpL) – similarly to SL elements – can be described as constituted by different parameter values and also show at least some phenomena of a “grammar”. For now, I will analyse the meaning of “gesture” as it is given in the quotation above, adopted from earlier gesture research. For the recipients of Liddell and other authors of the “Gesture School”, the “gestural character” of SL not only affects whole categories of SL elements but also SL syntax:

[...] the nature of syntax in sign languages and [...] a conceptualization in which syntax is seen as a set of norms distributed on a continuum between a categorial-conventional end and a gradient-unconventional end. (Jantunen 2017, 65)

It is not completely clear, but it seems that the author – after having defined “gesture” for all modalities – puts forward his proposal for syntax only concerning SL. If this is correct, it would prove the SpL bias of his analyses.

⁵ I cannot go into detail here, but we have to keep in mind that – applying the view of Cognitive Linguistics – scientific notions used or defined in linguistics are prototypically organised as we assume that for all, especially more abstract language elements. Maybe there is some more strictness in communication about them in the disciplines and there are even operational definitions for them, but this does not help to avoid prototypical meaning.

1.4 The Epistemological Consequences of Ascribing “Gestural” to Central Elements of SL

In order to understand the discussion on gestural elements in SL, we have to look at the epistemological dimension of the assumption that most central elements of SL are “gestural” in the understanding formulated above by Jantunen. One question in this respect is whether this way of describing SL has any scientific advantage, compared with other descriptions.⁶ As far as I know, no representative of the Gesture School has ever commented on that issue. My view is that this approach has a principal disadvantage: It does not lead to a modality-independent model of language. Instead, it promotes the incompatibility of SpL and SL by creating special notions for SL categories like “established lexicon” or “depictive verbs” and by denying the applicability of linguistic methods like a vertical minimal pair analysis (cf. below).

The representatives of the Gesture School argue inconsistently: On the one hand they emphasise the concept of a “continuum”; on the other hand, they see a “competition” between language and gesture:

Given that in sign languages, the same articulators compete for gestural and linguistic components of expression, it might seem unlikely at first sight that gesture production would figure prominently in sign languages. Some recent studies, however, argue that gestural components do play a role in sign production. This argument is based on the insight that sign languages exhibit modality-specific patterns and have – due to the visual-gestural modality – the potential to directly access imagistic, analog, iconic, or spatio-temporal representations [...] (Özyurek 2012, 636f)

These formulations take the existence of a high number of gestural elements in SL as an already proven scientific fact; their “shaping notions” for the area of SL, e.g. “visual-gestural modality” contain this semantics already in themselves. Additionally, readers are provided with a list of potential reasons for that existence of gestural elements, namely the possibility to produce “imagistic, analog, iconic, or spatio-temporal representations” in this modality. “Imagistic” and “analogue” are used stereotypically in many publications of adherents of the Gesture School, without legitimising their use by any further analysis. It is taken as given that several categories of elements of SL represent “images” which have the quality to be “analogue” to the referents they code. I concede that there is no agreement between philosophers or semioticians concerning a definition of “image” as well as “icon”. But I want to emphasise Sebeok’s statement that diagrams as one subcategory of icons (besides image and metaphor) were often neglected in semiotics (Sebeok 2001, 107). The abstractness of many iconic elements of

⁶ I do not relate this discussion to the sociolinguistic context of SL research here. For this issue cf. Napier and Leeson 2016 and their description of “applied sign linguistics”.

SL, partially described as lacking transparency, the fact that only one or very few parameters of the object referred to are produced, indicates that more or less all SL categories like classifiers or morphological components of verbs should rather be interpreted as diagrams and should not be denounced as mere images (otherwise all respective elements should be easily recognisable by non-signers). The use of inadequate terms strengthens the impression of SL as being “gestural”.

Moreover, the passage that “sign languages exhibit modality-specific patterns and have – due to the visual-gestural modality – the potential to directly access imagistic, analog, iconic, or spatio-temporal representations” proves the SpL bias of Özyurek’s approach: It is only on grounds of the use of another modality that SL are presumed to show non-linguistic properties.

It is also worth noting, that there is no ‘continuum’ between “analysable” and “not analysable in discrete terms”. This means that adherents of the Gesture School have to decide whether gestural elements, which – following Kendon and Jantunen – “can’t be analysed in discrete, categorial terms” are linguistically analysable or not. As this decision concerns major parts of SL grammars which showed that all the phenomena in question (cf. 1.1) are principally describable “in discrete terms”, the Gesture School should also develop a description of SL following their assessment of gestural parts in SL.

In contrast to Jantunen, Wilcox defines “gesture”⁷ as follows: “[...] a gesture is a functional unit, an equivalence class of coordinated movements that achieve some end” (Armstrong, Stokoe and Wilcox 1995, 43).

Adopting this definition, “gesture” would be a superordinate concept not only for SpL and SL but also for all functional actions of the human body. This definition is the most abstract and a modality-independent one. Using it, we need further criteria in order to separate “language” and “gesture”. For that we first have to decide whether we want to achieve a rigid separation of the two areas or whether we assume that there are some transitional areas or a partial sharing of properties, synchronically and/or diachronically. According to the second view, Wilcox introduces

[...] certain dimensions along which these phenomena vary, such as articulatory and perceptual systems, medium of transmission, conventionalization, schematicity, symbolic complexity, and autonomy-dependence. (Wilcox 2004b, 58)

Along these dimensions also the question whether some elements are more likely to have language status or not should be researched by in-depth analysis.

⁷ The notion of “gesture” as well as that of “articulation” can be interpreted rather differently: In their broadest sense, “articulation” covers production activities in SpL as well SL. Similarly, if “gesture” includes “vocal gesture”, it covers SpL, SL and every acoustic or visual communication act (cf. Wilcox 2013). In its common understanding, “gesture” means the non-linguistic expressive potential of the body (“body language”); in the context of SpL linguistics it means autonomous and speech-accompanying bodily activities (cf. Kendon 2005, 17–83).

However, also in using Wilcox' view, the following questions remain: Can all "gestural" phenomena in Wilcox' sense, produced in the context of communication by language, be described by one and the same model or system? In other words: Can we really construct a "unified grammar" – as proposed by Fricke (cf. 2.5.3) – or is it better to keep the notion of "grammar" restricted to items identified as language elements, enriched by elements indispensable for the correct interpretation of the communication act? Though adhering to the opinion that language is "an activity of the whole body", I personally tend towards the second solution, assuming a combination of embodiment and grammaticalisation processes (cf. Wilcox 2004a; Bolly, Gabarro-Lopez and Meurant 2015; Dachkovsky 2015; Kaşıkara and Özsoy 2015; Stamp and Sandler 2016).

1.5 The History of the Problems of SpL Linguists with Visually Coded Languages

Looking into the history of SL research, we find several issues which surprised linguists coming from SpL research. They had to cope with the properties at hand and sometimes their decisions left the way of looking for a common typology for SpL and SL, implicitly declaring SL as the deviant system.

1.5.1 A Biased "Model" of Language

Looking at SL only from the perspective of SpL research results, i.e. taking the results of SpL typology as the standard of comparison for all natural languages, turns all properties of SL which don not (seem to) have any coding equivalents in SpL to critical cases with respect to their language status. Drawing on Hockett (1978), Kendon (2014, 1–3) gives an overview related to the definition of "language":

Hockett (1978) accepted the language status of SL, but also drew attention to an important difference between spoken and signed languages, however. These differed, he said, in terms of what he called 'syntactic dimensionality'. That is, as he put it, in speech 'the only possible arrangement of words is linear'. On the other hand, in a sign language, 'there are four usable dimensions, three of space and one of time'. Because of this, sign languages can be iconic to an extent to which spoken languages cannot. He writes: 'when a representation of some four-dimensional hunk of life has to be compressed into the single dimension of speech, most iconicity is necessarily squeezed out' [Hockett 1978, 275]. If one has a four-dimensional system such as a sign language, on the other hand, much less iconicity is lost. For Hockett, thus, systems such as spoken languages or sign languages do their work with the properties that they have, and he suggests that spoken languages, just because of this linearity that squeezes out iconicity, have limitations that sign languages do not. Nevertheless, he says, because 'in 50,000 years or so of talking we have learned to make a virtue of necessity', we have become

proud of the arbitrariness of speech [Hockett 1978, 273–275]. (Kendon 2014, 2)

Kendon associates this quotation with an assumed topos of SpL linguistics, namely “arbitrariness is top”: “We like to make a point of the arbitrariness of language, as if this is something that makes it superior to systems that are not arbitrary.” (Kendon 2014, 2) Stating his own position, Kendon continues:

Why this should be so, I am not sure. There is a view that iconicity is somehow ‘easier’ than arbitrariness, [...] Hockett seems free from this prejudice, however. For him, it is clear that a system that shows iconicity can be just as respectable as one that does not. For example, he agrees that, in the light of a careful reading of Stokoe’s monograph, sign languages have what he calls ‘duality of patterning’—an important property, also, of spoken languages. He adds, however, that ‘[j]ust as speech in any language is characteristically accompanied by various paralinguistic and kinesic effects [...] so also signing can be accented and punctuated by purely iconic or expressive body motions that lack cinematic structuring’ [i.e. lack a phonology, or something analogous to it] [Hockett 1978, 276]. ‘Iconic devices’ in sign language are thus, for him, part of the picture, just as they are in spoken languages. (Kendon 2014, 2)

As a linguist, one has to accept Hockett’s reservation principally, as it only assumes very generally that there are some parts in every natural language communication which are not performed in concord with the system of the respective language (i.e. its grammar). To quote similar views from SL research:

Still, Goldin-Meadow and McNeill claim that sign languages are like speech in showing the crucial segmented/combinatorial characteristics. They then ask, “Can the manual modality at the same time also be used for holistic and mimetic expression? In other words, do signers gesture along with their signs [...]?” (Goldin-Meadow and McNeill 1999, 166)

It seems clear that signers do, in fact, gesture along with their signs. As Emmorey (1999) shows, sometimes the signer will stop signing and insert a gestural element. (Lillo-Martin and Meier 2011, 236f)

I would agree that there is no doubt that signers also gesture (cf. Healy 2015 who reports on emotional facial expressions which are produced in analogy to speech-framed gestures, coding the emotions of an experiencer in a story, possibly interpretable as Constructed Action). It is also very probable that many SL elements have their source in gesture, but the actual status of these SL elements is another question (cf. Wilcox 2005). Related to the question which elements were gestures in actual SL texts, therefore, we may ask two questions: 1. How do we methodologically separate the phenomena belonging to grammar from the others which are “performative” or accidental to

the analysed text? 2. With respect to the application of typological results from SpL to SL, how do we check the methodological validity of these operational methods? Additionally, I would like to emphasise Hockett's sentence quoted above: "[S]ystems such as spoken languages or sign languages do their work with the properties that they have". This sentence respects a general typological perspective on SL which we need for their unbiased analysis. We may reformulate it as a third question: How do SL do their work in comparison to SpL?

Compared to the quotes above, Kendon (referring to DeMatteo 1977; Mandel 1977; Boyes Braem 1981; Stokoe 1991; Brennan 1992; and Pizzuto, Pietandrea and Simone 2007) astonishingly states that:

[T]here were a number of students of sign language who had already seen that the structural linguistic model, as borrowed unchanged from spoken language linguistics, could not serve as a complete framework for the analysis of sign languages. (Kendon 2014, 2)

I interpret this statement as a misunderstanding of the quoted authors: These argued for adapting and expanding structural analysis in order to do justice to the visual languages, not for abandoning it.

1.5.2 "Established" vs. "Productive" Lexicon

The first example for "problems" linguists had with SL is the lexicon: Starting from the fact that it was not possible to find unique forms which could represent certain lemmas in SL dictionaries, especially for some verb classes, Brennan (1992) differentiated an "established" or "frozen lexicon" from a "productive lexicon". This dichotomy is not adequately comparable to spoken language linguistic terminology, where "productive" means a rule of language still in use (i.e. producing new form combinations) and contrasts to "non-productive" rules which are no longer used in the community.

The reason for the lack of unique lemmas for some verbs is that they appear in simultaneously produced verb phrases with detailed visual codings. This is – as was stated rather early in SL linguistics – due to the variability of visually three-dimensional coding, e.g. of actions related to space: Some types of sign language verbs (e.g. so-called agreement and movement verbs) show a rich morphology concerning the participants (using so-called classifiers) and different parameters of movement. As there is no infinitive in sign languages, there is no 'natural' neutral or less marked form which could be selected as the lemma. Instead, one has to choose a "citation form", i.e. a morphologically sufficiently enriched form which is a prototypical realisation of the respective verb (this problem is also found in spoken languages like Arabic or Hungarian where a finite form is selected to represent the lemma). Moreover, as all parameters can change in production, related to context, there is no element in such verbs which could be called the stem. Nonetheless, native signers seem to know the respective concepts (like "give" or

“move”) and the morphological rules for the production of the verbs in question. Accordingly, sign language dictionaries show prototypical instances of them. Therefore, the given definition is not adequate in saying that the productive lexicon was

an inventory of phonological building blocks (handshapes, movements, [...]) from which the language user can make a selection to form new signs that do not (yet) belong to the frozen lexicon. (Schermer 2016, 173f)

This definition assumes that the respective verbs are “invented” anew in every signing act and would differ radically from the elements of the “frozen” lexicon. We can conclude that the dichotomy as such is not adequate even for SL as it mixes lexical and morphological criteria and misinterprets the difficulty to establish lemmas for the elements of the “productive lexicon” in dictionaries as a property of certain lexical classes of SL. To emphasise the source of the dilemma: It was not a problem of analysis; it was only a problem of the representation of visual lexemes/morphemes in dictionaries which disappointed the expectations of some SpL linguists.

1.5.3 First vs. Non-First Person Pronoun

Meier (1990) contrasts SpL to SL because in the latter the position of the referent in space determines the phonological parameter of direction:

[M]ost descriptions of the ASL signs translated as “you” or “him/her/it” are phrased in terms of the reference of these signs. That is, the sign YOU is described as a pointing sign directed to the addressee or, alternatively, as a pointing sign directed to the addressee and accompanied by gaze to that addressee. In such descriptions the phonological shape of the putative second-person sign is defined in terms of both the location of its referent and the conversational role of that referent. In contrast, when we impute second person to the English pronoun “you”, the notion “addressee” appears only in the description of the conditions under which “you” is used, not in the phonological description of the word. (Meier 1990, 188)

That the pronoun coding of ASL deviates from that of English in terms of exploiting the possibilities of three-dimensional space is not looked upon neutrally (e.g. by trying to find a model overarching SpL and SL). Rather, the model of English, having no directional coding element, is generalised as a criterion for all languages, namely: Pronouns must not include the addressee in their phonological description. Looking at the physical appearance (“phonological form”) of the signs for addressee and third person and – following the “English” model – neglecting the roles of the participants, he states that the respective forms cannot be distinguished. “[T]he set of pointing signs we might identify as second person largely, if not completely, overlaps the set we would identify as third person.” (Meier 1990, 186)

This SpL-biased interpretation of facts serves as the argument against differentiating between second and third person as grammatical categories in ASL:

Unless the form of the corresponding ASL sign can be described independent of the location of the real or hypothetical addressee, I see no reason why the grammatical description of ASL must be complicated by the notion of second person. Note that this problem does not arise in describing first person signs. The first-person signs [...] can be described as having the center of the chest as their place of articulation. The center of the chest is also the place of articulation of a large number of non-deictic signs [...] (Meier 1990, 188)

As a result, Meier proposes three grammatical categories for ASL, namely first person singular, first person plural, and non-first person. The latter can be differentiated by adding morphemes like a “sweep movement” for plural or by the incorporation of numbers.⁸ Addressee and non-addressee as well as different non-addressees can be differentiated by indexing different loci for the respective referents.

Though Meier quotes a SpL universal: “All known spoken languages have a way to distinguish first, second and third person” (Meier 1990, 176), he does not concede that for SL grammatical categories. The underlying SpL-bias – instead of accepting “direction to participant” as a relational parameter for SL pronouns – helps assuming that SL are “deviant” from SpL, especially by not being able to identify referents without the use of spatial elements. He forgets that visual spatial elements belong to the coding inventory of SL while the SpL inventory does not contain acoustic spatial elements (how they should look like ever).

Meier cannot make clear why the use of different loci should allow to differentiate between addressees and non-addressees because the loci physically overlap as well as the directions of the indexes do.⁹ We can find linguistic parameters of SL which allow a formational distinction between second and third person, however: normally, gaze is directed to the addressee, except a third person is indexed (this fact is noted by Meier 1990, 186, but he dismisses it as possibly being a “property of conversation”) and role play is only possible for third person referents.

Moreover, Meier uses a problematic parameter description for the pronouns: He takes “place of articulation” as the main feature of the first person (i.e. the chest of the signer). But this parameter does not allow to describe the calling up of different loci. This can only be done by using the parameter of “direction”. Taking “direction” as the decisive parameter for all pronouns would show that a homogeneous rule for

⁸ Meier (1990, 189) argues that lexicalised forms for the first-person pronouns and componentially differentiated non-first-person pronouns are compatible with findings from diverse SpL.

⁹ “[...] indexing of spatial loci is sufficient to distinguish the loci associated with the addressee from those associated with the non-addressed participants in a conversation.” (Meier 1990, 189)

directing the index allows a more general description of pronominal indexing. This rule – resorting to the cognitive processing of participants' roles and not to the superficial directions in physical space – can serve to set up the usual differentiation between first, second, and third person pronouns: The phonological description of the pronoun in the lexicon then contains the parameters remaining unchanged as well as a relational rule for the parameter of direction, depending on the actual communication situation or an invented one, also related to the roles of the respective participants. The situation as a whole can be related to a cognitive “map” of the signer containing all information relevant for his sign production and steering the signing.

We can further argue with the coding inventory of SL that “direction” belongs to this inventory (but not to the inventory of SpL), so why not use it for the production of pronouns? The realisation of the parameter follows a universal human cognitive-communicative rule which is directly taken in by SL grammar, by that also using the general principle of SL to use iconic/indexical strategies in parameter values (Stokoe's (1991) “semantic phonology”).¹⁰

1.6 How to Find so Many “Gestural”/Non-Linguistic Elements in SL?

Within the “Gesture School” of SL linguistics there are two pathways to its results: One can either take over Liddell's (2003) model,¹¹ mainly based on the argument that “gradience” is a definitive criterion for elements of SLs to be evaluated as “gestural”. Or one can use the argument of gradual or complete lack of “conventionalisation” as the criterion for elements being “gestural” (put forward e.g. by Johnston 1996 and Johnston and Schembri 2010).¹² The use of similarity judgements between elements of SpL evaluated as “gestural” with respective elements of SL (cf. Cormier, Quinto-Pozos, Sevcikova and Schembri 2012) is methodologically questionable. A similarity approach only has as its consequence that all elements of SL showing a sufficient similarity with gestural elements of SpL would get the same evaluation for SL.

As the “Gesture School's” findings are based on or related to gesture research, I first refer to this discipline:

¹⁰ Comparing the production parameters of SpL and SL from a typological perspective, we find many common features: simultaneous and sequential configuration of parameter values, place of articulation, open/close movements, movements from one configuration to the other (= coarticulation). The difference is that in SpL all these elements are used to produce different shapes of the resonance space of the vocal tract.

¹¹ Here and throughout this text I take Liddell (2003) as the prototype for the “Gesture School”. Although similar ideas had been proposed earlier (cf. also paragraphs 1.5.2 and 1.5.3 above), these did not concern SL as a whole. Liddell was the first to systematise the “gestural view” on SL and to summarise all arguments in favour of this view.

¹² This argumentation is perhaps a transfer of McNeill's concept of “conventionalisation” to sign languages, using “non-conventionalised” as a synonym for “gestural”, the latter having been adopted from Liddell.

2 The Transfer of the Spoken Language-oriented Notion of “Gesture” to SL

Gesture research was exclusively driven by analysing SpL communication. Nevertheless, its results were more or less taken over by SL linguists. Neither the source of gesture description, SpL research, nor any possible need for an adaptation of the definition of gesture for SL were discussed (cf. Lillo-Martin and Meier 2011, 236, referring to McNeill’s model described below). However, analysing SL based only on results of SpL research poses a first methodological problem, namely the number of communication channels: SpL use two, the acoustic and the visual one, SL use only one, the visual one. The fact that the acoustic channel contains most of the content – together with the widespread tacit assumption that SpL is exclusively produced in the acoustic channel – had as its consequence that SpL linguistics evaluated only the elements of this channel as “language” or “paralanguage”.¹³ All visual elements are assigned non-linguistic status, they are “gesture”. The result is a strict dichotomy which is questionable even for SpL. While for SpL the respective channel then defined the language status of communicative elements, this is impossible for SL. Therefore, one needs a different definition of “gesture” for SL.

In contrast to the more dichotomous model of SpL linguistics, gesture research postulated a tight cognitive connection between SpL and gesture which accompanies and amends SpL (cf. McNeill 1985, Kendon 2005).¹⁴

2.1 “Kendon’s Continuum” by McNeill

Kendon conceived a “continuum” of different visual-communicative means within the extension of “gesture”, having SL as the “border” to language which was expanded to 4 subcontinua by McNeill (2000, 2–5).¹⁵

¹³ “Linguistic” means “produced by use of the language system/grammar”, “paralinguistic” means “without any relation to the language system/grammar”; cf. also the notions “competence” and “performance”. All respective definitions come from SpL research. “Paralinguistic” is more commonly used for phenomena in the acoustic channel, while “non-linguistic” covers the visual channel (cf. e.g. Lehmann 2013). Rarely, “paralinguistic” covers both channels.

¹⁴ McNeill (2007, 18) calls this “imagery-language dialectics”, in which both speech and gesture are simultaneously active and inseparably combined in cognition. The notion of “imagery” which I interpret as generally describing memory engrams of scenes, actions, and objects has led to the misinterpretation that all these engrams are “images” in the sense used in semiotics and that they are directly represented as “images” of the elements referred to in gesture production. This interpretation was then transferred from SpL to SL. In connection with the assumption that these “images” were analogue reproductions of the elements of the real world, many SL signs were denied categorial (= language) status.

¹⁵ SL is taken as one “pole” of the continuum. It is only from its description in Kendon (2016) and McNeill’s description in the subcontinua 2–4 – identical to the description of SpL – that we can conclude that SL “signs” belong to the area of language. With the notions of “contrasting kinds of semiotic properties” and “sign-gesture system”, however, McNeill (2000, 5) refers to Liddell’s concept of SL.

| | <i>Subcontinuum 1: relationship to speech</i> | | <i>Subcontinuum 2: relationship to linguistic properties</i> | <i>Subcontinuum 3: relationship to conventions</i> | <i>Subcontinuum 4: character of the semiosis</i> |
|------------------------|---|------------------------|--|--|--|
| <i>gesticulation</i> | obligatory present | <i>gesticulation</i> | absent | not convention- alised | global synthetic |
| <i>emblem</i> | optionally present | <i>pantomime</i> | absent | not convention- alised | global and analytic |
| <i>pantomime</i> | obligatorily absent | <i>emblem</i> | some present | partly conven- tionalised | segmented and synthetic |
| <i>sign (language)</i> | obligatorily absent | <i>sign (language)</i> | present | fully conven- tionalised | segmented and analytic |

Table 3: Subcontinua to “Kendon’s continuum”

The pole “Gesticulation” is defined as being “co-expressive”, “co-speech”. “Gesticulation” assists the transmission of the meaning of SpL and is a system bound to SpL.¹⁶ The other pole, sign language, is ascribed language properties because its signs are fully conventionalised.¹⁷ “Emblem” is defined as a culturally specific conventionalised gesture with a specific meaning (e.g. “thumbs up” or “ok”). This specific relation between form and meaning represents already somehow a property of language and therefore emblems are understandable with or without accompanying SpL. A linguistic property they lack is the existence of a contrastive formational system; and not all additional features can be distinctly interpreted. The last category within the area of gesture, “Pantomime”, is defined as a sequence of gestures which code an event or story not accompanying respective SpL units.

The arguments for not ascribing linguistic status to gestural elements are the following: They are spontaneously produced, non-arbitrary, and depend on their context; they do not have a standard form and cannot be combined together. Additionally, they are defined as non-linear, not as segments, and their meaning is “top-down”, “global” or “synthetic”.

¹⁶ “Gesticulation” is “synchronised” with the simultaneously produced SpL and breaks down together with the latter in aphasia.

¹⁷ Concerning the criterion “absence of speech”, it should be noted that mouthings represent a contact phenomenon related to SpL.

“Speech-framed gestures” – they are not mentioned in McNeill (2000) and appear first in McNeill (2006) – are defined as replacing a possible word of SpL which is not produced. That is, they fill a structural slot in a SpL text.

For “gesticulations” und “speech-framed gestures” McNeill (2006, 4f) proposes a subdivision in “rhythmical” (i.e. “strokes”/“beats”, synchronised with the rhythm of SpL), “deictic” (“indexical”, e.g. “pointing gestures”), “conjunctive” (linking of text parts), “iconic” (coding information visually) and “metaphoric” (visual metaphor for abstract information).

Further assumptions by McNeill:

- If SpL is the basis of communication (i.e. obligatorily present), gestural elements do not show properties of language; if SpL is obligatorily absent, SL elements have these properties. Emblems and partly also “Homesign” are examples for gestural communication with emerging language properties (McNeill 2000, 9).
- The conventionalisation of an element directly correlates with its language status.
- Meaningful language elements can be combined to more complex meaningful elements (“bottom-up”, “segmented-analytic”).

2.1.1 Critical Points of Mc Neill’s Model¹⁸

The model poses a variety of problems: The first and unique continuum (McNeill 1992) had the following structure:

[spontaneous] gesticulation > [language framed/slotted] > pantomime
> emblem > signs/sign language.¹⁹

Splitting this unique continuum into four subcontinua changed the sequence for sub-continuum 1 into ‘gesticulation > emblem > pantomime > sign language’, while sub-continua 2–4 kept the original sequence.²⁰ As a result, there is no more a homogeneous sequence of the four chosen phenomena (cf. Table 3).

¹⁸ For critique from a SpL linguistics perspective cf. Fricke 2012, 116-122.

¹⁹ This sequence merges several variants of the basic “continuum”; cf. McNeill 1992 and McNeill 2007a.

²⁰ For the respective reception cf. e.g. Parrill 2008, 197, Gawne, Kelly, and Unger 2009, Tellier 2009, Scott and Pika 2012, 153f.

2.1.1.1 The Notion of “Continuum” is Applicable Neither to the Whole Model nor to the Single Subcontinua. Rather, We See More or Less Well-Defined Classes or Sets²¹

As mentioned above, subcontinuum 1 deviates from the other three, concerning the order of emblem and pantomime (cf. also Kendon 2005, 104–106). This inhomogeneity is probably due to their characteristic functions and their appearance: emblems are single signs, pantomime is a coherent “acting out” at specific positions of SpL or SL communications, and SL are languages themselves.

With the exception of emblems and homesign (see above), McNeill does not give examples for “transitional areas” between the four categories described in Table 3. This view is supported by discretely ascribing the criteria used to the respective categories. Therefore “continuum” seems to be only an illustrative metaphor.

In-between the two poles, emblem seems to get its gradual evaluations (some linguistic properties present, partly conventionalised, segmented AND synthetic) more for the sake of arranging them where they are than from observation and analysis: It is not clear why they should be only partly conventionalised. The description “segmented and synthetic” looks like a contradiction in itself. Either the emblem’s gestalt can be analysed in parts, the absence of which destroys its significance, or not. “Synthetic” seems to express only the status of a single item of meaning. The evaluation of pantomime as “global and analytic” shows a similar contradiction in itself.

The criteria used for the description of the categories are dichotomous; they do not even show transitional steps: E.g. in the fourth subcontinuum, related to semiotic processes involved in the production of the gestural elements differentiated, McNeill uses two opposing pairs, namely “global” vs. “segmented” and “synthetic” vs. “analytic”. “Global” says that the meaning of the respective element does not result from a combination of meaningful elements (that is the definition of “segmented”), but from the element as a unitary unit. In other words: the parts of “global” gestures cannot be ascribed morpheme status); the meaning of the gesture is produced “top-down”. In contrast, the “bottom-up” produced meaning of “segmented” entities results from the meanings of its morphemes. In McNeill’s words: “The meanings of the ‘parts’ are determined by the meaning of the whole. This contrasts to the upward determination of the meanings of sentences.” (McNeill 2000, 5)

“Synthetic” says that the meaning of the respective gestural element relates to a word or even a sentence as a whole, while “analytic” gestures (e.g. in pantomime) can be analysed as sequences of actions. Both opposite pairs, “global” vs. “segmented” and “synthetic” vs. “analytic”, cannot be used to describe a continuous transition within single continua, rather they signal categorical differences.

²¹ The only possibility to create relations between the classes would be to state genetic cognitive, or historic “family resemblances” in the sense Wittgenstein proposed.

The “relative distances” of the categories are not discussed: Concerning the absence of language properties as well as of conventionalisation, gesticulation and pantomime would mate, while concerning the absence of speech pantomime and SL would mate.

Important criteria like duration/measure in time or communicative function are not applied: While gesticulation runs at least partly continuously if a speaker uses it, an emblem has a duration like a single sign. Pantomime has some longer duration because it presents information scenically, via visually perceivable performance of the whole body.

2.1.1.2 Mixing of Criteria of Different Sorts

The above-mentioned subdivision of “gesticulations” und “speech-framed gestures” in “rhythmical”, “deictic”, “conjunctive”, “iconic” and “metaphoric” mixes different criteria: While “rhythmical” is an intrinsic property of the gestures defined by this criterion, “deictic” and “conjunctive” are communicative functions of the respective gestures. In contrast, “iconic” is a special form of coding, as well as “metaphoric”. Therefore, the subdivision is methodologically not clear-cut and the category of “gesticulation” is inconsistent in itself: One set of elements within this category are the more or less continuous activities during speaking (e.g. beats, strokes, etc.), other subsets are deictic, iconic representational, and metaphoric gestures (elements of the last subset represent abstract content iconically). The members of these subsets differ massively regarding their functions and their conditions of their production.

2.1.1.3 Problematic Understanding of “Conventionalisation” and Inadequate Use of the Criterion “Degree of Conventionalisation”

Gesticulation and pantomime are evaluated as “not conventionalised” (regarding subcontinuum 1, they are not adjacent, because emblems are positioned between them). Emblems are ascribed “partly conventionalised”; only signs/sign language get – as could be expected – “fully conventionalised”. This reflects McNeill’s assumption that only language elements can show this property (cf. McNeill 2000, 9; he may have adopted this assumption from common sense SpL linguistics). But linguists do not take this property as one which is restricted to language alone. Rather, every sign needs some sort of convention – always restricted to the group of its users – for its successful use in communication – by definition. Therefore, regarding the ascription of “conventionalised”, the preceding question is whether the respective element can be taken as a sign instead of using a gradual scale of the parameter “conventionalised” as a tool for ordering different phenomena as in McNeill’s subcontinuum 3.

Enfield restricts the evaluation of “non-conventional” to signs which are singularities within communicative usage, i.e. spontaneous applications of what I have described

in connection to pantomime (attempts to code what the speaker thinks is a common “concept” of the respective object or action):

Non-conventional signs [...] are found when people take certain signifiers for certain signifieds not because of previous experience with that particular form-meaning pair or from social convention, but where the standing-for relation between form and meaning comes about by virtue of just that singular event of interpretation. Examples include representational hand gestures [...], where the gesture component of an utterance is a token, analogue representation of its object. (Enfield 2013, 696)

Let us start with the so-called “emblems”: Following McNeill, these are culturally and contextually specific gestures coding a relatively well circumscribed meaning (e.g. “thumbs up” or “ok”), understandable with and without language.²² With this meaning-form-relation they can be interpreted as similar to single signs of a language. However, as they cannot be combined with each other to form larger meaningful units and as they miss a system of contrastive distinctive features in which all emblems of one coherent cultural group are embedded,²³ they do not constitute a language (additionally, there is simply no sufficient number of elements for that). They have to be conventionalised in order to be understood as signs in a certain community: they are (fully) conventionalised non-linguistic signs. Naturally, this convention holds only for the group of persons who use such visual signs systematically in their communication.

The question whether signs have to be evaluated as non-linguistic is further complicated by the existence of so-called “speech-framed/slotted gestures”, positioned between “gesticulation” and “emblem” (cf. subcontinuum 1 above and McNeill 2006, 4f) or “pantomime” (cf. subcontinua 2–4). This notion describes the property of a gesture which can be used to fill a sequential slot in a SpL sentence structure alone (without an accompanying spoken element having the same meaning), i.e. to replace a spoken element.²⁴ The consequence of this phenomenon is that we have to differentiate for the same gestural elements whether they are used for visual underlining or illustrating – accompanying respective SpL elements – or for replacing spoken elements, then necessary for the completion of a SpL structure. This differentiation is an important feature in analysing the functional capacity of gestural elements: We separate the gestures exclusively used “co-expressively” from those which can be used both accompanying speech and filling sequential slots. This parameter has to be cross-used with McNeill’s (2006, 4f) differentiation into “rhythmic” (“strokes”/“beats” which are produced synchronically with

²² In general use, emblems have a far wider meaning, they are e.g. defined as “an object or the figure of an object symbolizing and suggesting another object or an idea”, or “a device, symbol, or figure adopted and used as an identifying mark” (cf. <http://www.merriam-webster.com/dictionary/emblem>).

²³ Though they – like all visual gestural elements – can be analysed into parts by simply applying a descriptive inventory, e.g. the one used for SL.

²⁴ The question emerges whether an otherwise non-linguistic visual sign changes its status to “linguistic” when it is used as a representative.

the rhythm of SpL), “deictic” or “indexical” (pointing gestures), “conjunctive” (joining parts of a text), “(visually) iconic” und “metaphoric”.²⁵

Let us turn to pantomime:²⁶ Functionally, it has similarities with SpL and SL as one can describe scenes or tell stories with them. Pantomime uses another inventory of body movements than SL: For artistic pantomime,²⁷ all elements of pantomime are intended to show typified recognisable body movements including facial expressions which the audience can relate to actions, feelings, etc. There is no fixed “sign inventory for pantomime” – not even for a special culture – but there are many institutions where one can train to become an artistic pantomime.²⁸ In order to be “understood”, pantomimes have to resort to what they think are common conceptions of what they want to represent; this is done in typifying observations of everyday life, by taking over apparent traditional views and representing them in the form of icons (images, diagrams, and metaphors) for certain notions or actions, also in training contexts.

In the ideal case, the audience – though they did not learn the rules of artistic pantomime – can identify all elements of a pantomimic scene. Therefore, the only evaluation of artistic pantomime as “not conventionalised” is not adequate: On the side of the producers there are some “rules of representation” – partially culturally determined – which can be learned and trained. On the side of the perceivers there is a more or less commonly shared, partially kinaesthetic experience regarding the relationship of movements and facial expressions with a scene, story, or meaning represented by them. As a consequence, we have to state that for pantomime groups of different cultures there is a conventionalised set of “body signs”, with some artistic freedom in actual production and the possibility to develop new signs. Their production quality is imagistic or highly iconic, including metaphoric (metonymic) use, maybe showing more creative variability for the single sign than other systems. From a Peircean perspective, they must be called (non-linguistic) “signs” anyway. Due to the special group structure of producers and audience, where only the first group has full access to the respective conventions

²⁵ It should be noted that only one of these descriptors, namely “rhythmic” describes a formal property, all others describe functional ones. The gestures in the rhythmic set do not seem to be used for replacing spoken elements. As soon as beats or strokes would lose their synchronisation with speech, we would stop calling it “(co-speech) gesticulation”. Therefore, there is no transition zone from “gesticulation” as defined by McNeill to any other part of the pretended “continuum”.

²⁶ Cf. “Simple Definition of pantomime:

- a way of expressing information or telling a story without words by using body movements and facial expressions
- a performance in which a story is told without words by using body movements and facial expressions.”

A selection from <http://www.merriam-webster.com/dictionary/pantomime> 10 Sept. 2016.

²⁷ McNeill (2000, 3) excludes “theatrical pantomime” from his continuum because of its rules. I consider it here in order to show the contrast and the commonalities between everyday and artistic pantomime.

²⁸ Cf. Chapter 2 Pantomime and mime n.d. In artistic pantomime, there are notions used like “gesturally-pantomimically representational dance” which use “conventionalized gesture” (Österreichisches Musiklexikon 2009) or “gestural-facially expressive-pantomimic movement language” (Schroedter 2004, 33). For a history of representational inventories, cf. Thurner 2009, 49–132.

and as there is some pressure regarding the originality of artistic pantomime, there will be many people in the audience who do not get full access to the meaning intended by the producers. This proves that the average members of the audience are not members of any of the “convention holder groups”. On the other hand, fully idiosyncratic performances by the artists without any connection to common experience would not have any success at the side of the audience.

For non-artistic, everyday pantomime, several functions can be observed: People can try to overcome their lack of knowledge of a foreign language, demonstrate a certain practical process, overcome a noisy environment, illustrate a SpL scene, or play (which we can at least partially call “Constructed Action”). In this context, the term “convention” would be inappropriate. But as the transmission of information is still central here, the question is which coding strategy can be used for a successful transmission. The answer is similar as for artistic pantomime: Consider common sense experience and use visual images or icons which are as explicit and typical for a certain action, situation, object, or property as possible. The only difference between artistic and everyday pantomime is that the artists are trained, and the laypeople have to search for spontaneous iconic signs and to try to perform correctly what they have in mind. In non-artistic pantomime, convention is replaced by establishing reference to a hypothetically joint experience and expectation.²⁹ In other words: convention as a clear categorial criterion is replaced by the existence of a not entirely specified set of common experiences and iconic strategies. For the sake of artistic creativity, this may also partially be the case for artistic pantomime.

For both types, artistic and non-artistic pantomime, understanding the meaning is facilitated by the use of the whole body and by a direct representation of scenes and their sequences, for which the addressee has their own kinaesthetic or imaginative repertoire. These properties delimit pantomime very clearly from SL as well as from gesticulation (the second delimitation is not well illustrated by McNeill’s continua).

Regarding “gesticulation”, the criterion of conventionalisation is here partially inadequate for another reason: If there is no explicit intent to transmit meaning, as in some parts of co-speech gesture, we use gestural elements acquired in our cultural-communicative socialisation (and not those invented on the spot); i.e. the acquisition of relevant behaviour steers gesture. Related to the perception of these elements, unconscious or partially conscious expectations concerning gestural behaviour are evoked: Experiences of producers and perceivers allow/demand a behaviour within the borders of certain social norms. Within this bandwidth, the culturally accepted behaviour is unmarked; any deviation would cause surprise or refusal by the perceivers (cf. Kendon

²⁹ That such a concept is sometimes problematic is illustrated by the following play: a group selects a – preferably difficult – notion which a member of another group should pantomimically present to her group in order that they can name the word.

2016, 36–38):³⁰ Would a person replace strokes/beats in the space in front of her by strokes/beats on her head, the partially automatic perception of the perceivers would become fundamentally disturbed.

For gestures which have one of the functions described above (deictic, conjunctive, iconic, or metaphoric), either a recourse to common experiences of gestural “meanings” (e.g. for conjunctive ones) must take place or even a rather narrow-banded convention exists (e.g. for indexical/iconic gestures like pointing or giving a metaphor for ‘crazy’).

In summary: Related to the general definition of signs by Peirce who differentiates between signs as images, icons, or symbols (adding that most, if not all signs show all three properties to different extents), McNeill’s understanding and application of the criterion of “conventionalisation” seems to be inadequate. In contradiction to his use, several subsets of his category of “gesticulation” (namely indexical and iconic elements) of pantomime as well as the entire category of emblems have to be evaluated as signs which are, by definition, based on conventions. Other parts of gesticulation and non-professional pantomime are driven by social norms of behaviour and by common expectations related to their form and use. The limits of these norms and expectations are only inadequately described by “partly/not conventionalised”. Therefore, McNeill’s continua should be revised, considering whether the types referred to are signs of language, other types of signs, or effectively no signs.

2.1.1.4 The Problem of Subcontinuum 4

Ascribing the values of “global and synthetic” to gesticulation expresses a “holistic” view on these productions. There was never any doubt that gesticulation could be described using the same parameters as are used for the description of the signs of SL or any movement of the hands. What remains is the “downward” constitution of meaning: “The meanings of the ‘parts’ are determined by the meaning of the whole.” (McNeill 2000, 5). In contrast, Wilbur and Malaia show “neurological, functional (semantic) and formational (kinematic) similarities between gesture (in spoken languages) and sign languages” (Wilbur and Malaia 2008, 5)

Using event structure as a base, they state that gestures can be described to some extent using semantic components which are found in SL analysis³¹ (cf. also Sandler

³⁰ We could relate this also to McNeill’s (2000, 5) notion of “conventional only in the broadest sense”.

³¹ [...] the kinematic patterns of sign formation systematically reflect fairly abstract conceptual and semantic components of event structure within the context of predicate signs. Further analysis [...] indicates that what might be called the sign ‘stroke’, parallel to the gesture stroke, has internal structure that can in fact be systematically and sequentially identified with (1) the inception of an event (e.g. loss of contact between two hands, or rapid acceleration of one hand away from the other or a location in space), (2) the dynamic portion of the event (extent/path, manner), and, if appropriate, (3) the completion of an event (the rapid deceleration we have documented above). The argument for considering there to be internal structure is that either the inception, or the completion, or both, must be perceptually *marked* (rapid acceleration or deceleration). Movement which begins and ends evenly does not permit postulation of internal subevent structure. It is likely then that some gestures are not ‘unanalyzable’ but need to be further

2015 on the compositionality of body actions). As a result, the “non-analysability” of gesticulation becomes doubtful. This makes the whole subcontinuum 4 questionable.

2.1.1.5 Disregard of the Diversity of Coding Strategies in Different Languages: An Example

An example of *gesticulation* is “he grabs a big oak tree and **bends it** way back” (McNeill 1992). Before making the gesture, the speaker had moved his right hand forward and slightly upward while opening his hand into a kind of C-shaped grip; all of this was preparation. The gesture then took place during the boldface stretch, with the hand appearing to grasp something and pull this imaginary tree back and down. (McNeill 2000, 1f).

The “bends it way back” lacks all linguistic properties. It is non-morphemic, not realised through a system of phonologically formal constraints and has no potential for syntactic combination with other gestures. We can demonstrate the inapplicability of linguistic properties through a thought experiment. Imagine another person saying the same thing but with “it” meaning the corner of a sheet of paper. Then, rather than the hand opening into a grip, the thumb and forefinger would come together in a pinch; rather than the arm moving forward and slightly up, the pinching hand would be held slightly forward and down; and rather than pull the arm back, the pinching hand would rotate. Also, this gesture would naturally be performed with two hands, the second hand ‘holding’ the paper that is being bent back. That is, none of the formal properties of the first gesture would be present in the second gesture, bends-it-way-back though it is. Neither gesture in fact obeys constraints within a system of forms; there are only constraints that emerge from the imagery of the bending itself. The handshape and position are creations of the moment that reflect the speaker’s imagery – of a character from a story reaching up and pulling forward to pull back a tree, of someone turning down the corner of [a] piece of paper. The ASL sign TREE, in contrast, *is* constrained by the phonological properties of the ASL language system. (McNeill 2000, 3)

In the bending back gesture, we understand from the meaning of the gesture as a whole that the hand (one of the ‘parts’) equals the character’s hand, the movement (another part) equals the character’s movement, and the backward direction (a third part) equals the character’s backward movement. These are not independent morphemes. It is not the case that the hand in general means a hand or movement backwards must always mean movement in that direction [...] In speech, on the other hand, the event of the character bending back the tree was constructed out of independently meaning-

investigated to identify possible components. Indeed, if one is to take seriously the argument that gestures are the forerunners to language, with mediation through sign languages [F.D: this relates to the proposal in Armstrong, Stokoe and Wilcox 1995], it is practically an imperative that some gestures are analytical in order to permit the development of sign *language* with its clear phonological and morphological structure. (Wilbur and Malaia 2008, 8)

ful words or segments organised according to a standardised plan or syntax. (McNeill 2000, 5)

In evaluating this argumentation, we have to consider first that McNeill refers to co-speech gesticulation. Nevertheless, we can identify relevant shortcomings: First McNeill assumes that the bending back of tree or paper will be coded by one and the same verb in all SpL languages as it is possible in English. This is rather improbable: at least some languages would have to use a verb which specifically codes the action more exactly, or that it was performed “by hand”, or a classifier which codes e.g. the dimensionality of the object.

Second, we need to be aware that the fact that bending back a tree vs. bending a paper may almost obligatorily be differently coded in an iconic visual sign system is not an argument against the conventionalisation of these different codings: It is simply a convention in such systems that these different actions are coded differently.

Third, even in English it is not completely clear what “bend” means: does it mean “to fold” (which could not apply to the tree) or “to break” (which could not apply to the paper). We can therefore not exclude the interpretation that the gesture is used as a specific information the speaker wants to give in order to transmit the exact information of the event. In this case it was a visual sign used simultaneously with the spoken sign. Due to its rigid exclusion of visual signs, SpL grammar does not consider such possibilities though they are not this rare.

Fourth, McNeill proves himself that the parts of the bending back activity can be identified and obviously contain information about details of the action not coded in accompanying speech. That is, they are meaningful components of a sign as an image. It is also clear that the speaker would not have performed a forward movement if the movement in question would have been one backward. In this case he would have used a movement contrasting to the original forward one. The same is valid for the handshape: If the speaker would have wanted to display that the tree could have only been bent away by two hands, he would have shown that by moving both hands jointly. If the speaker would have lacked any information about the real action, he would have selected his prototypical image of “bending”, constructed by using relevant components representing several aspects of the action.

We can conclude that even a partial set of the so-called co-speech gesticulations underlies an implicit system of coding visual signs of the image or icon type. The many dimensions of detailed visual signs and their character of images or icons have distracted SpL linguists as well as McNeill from accepting them as signs. Instead of pointing to this detailed structuring of visual signs compared to acoustic (spoken) ones, McNeill denounces it as deficient, compared to what he thinks are signs of spoken language;³²

³² Cf. e.g. the statement that the visual codings are “creations of the moment”, as if a SpL sentence would not be of that category. He also devaluates constraints which “emerge from the imagery”. This phrase is descriptively not adequate: McNeill ignores the major constraint for visual signs of the image type: ‘Do

this includes the devaluation of signs which are images or icons against those which are symbols.

If we imagine a coding of the bending back scene in a SL, the bending would be coded by a verb showing at least the same components as described for the co-speech visual sign. One essential difference is that all possible SL coding dimensions are described in a grammar, the rules of which can be detected by asking any native signer:³³ Communities of SL users have optimised the rules for coding single items as well as scenic representations, following rules of economy, clarity, and functionality just as communities of SpL users have done that for their acoustically transmitted codes.

The production of signs which are visual icons (images, diagrams, and metaphors/metonymies) is a universal human ability. It is based on our universal kinaesthetic cognition. Therefore, some parts of this cognition, e.g. the dimensions of up and down or directions like forward and backward are universally respected – and also used as conceptual metaphors – while others, e.g. space in general and time can differ from each other culturally, related to the ascription of different importance to their components. Signs which are visually iconic show a similar variability.

2.2 Kendon

Kendon (2014, 1–3) refers to the history of sign language linguistics. He repeats what we can call a topos of newer SL research, namely that the early SL linguistics

attempts to show that sign languages can be analysed, at least grammatically, in the same way as spoken languages can be, and efforts have been made to argue that even the iconic or expressive devices that Hockett mentions and which, as he says, lack cinematic structuring, after all somehow do show this. There was an ideological agenda behind these efforts, however, not just a scientific one. This was an agenda that derived from the moral superiority attributed to what is counted as being ‘truly linguistic’. (Kendon 2014, 2)

With this evaluation as “an ideological agenda”, Kendon – without presenting any argumentation of his own – denounces the attempts of early SL linguists to integrate findings in SL into the existing language typology by creating notions like „classifier” or “locus”, even accompanied by proposals to broaden language typology in order to cover all phenomena found in SL. These attempts may have not all been adequate, but they are now devaluated as a whole by taking over Liddell’s interpretation of so many SL phenomena as “gestural”. He follows Wilcox (2004a) who

not use coding parameter values which violate your reconstruction of the scene or – in case of lacking knowledge concerning the real scene – the prototypical image of the scene.’

³³ McNeill accepts lexical visual signs which represent objects (i.e. nouns): He states that the ASL sign TREE “iconically depicts a kind of schematic tree” und “iconicity is conventionalized and constrained” (McNeill 2000, 2). It remains unclear whether he considers SL verbs being of the same category.

reminds us, many of the attempts to analyse sign languages just as if they are spoken languages – compelling them, as it were, to fit a model of language reared through the analysis of spoken languages – meant that many features of what signers actually do when constructing utterances either had to be overlooked or represented as something that they were not. (Kendon 2014, 2)

Therefore, though pleading for a new, broader perspective on “language”, Kendon takes over the assumption that structural linguistics “should be modified for the description of sign languages”:

It is becoming recognised that gradient or analogical forms of expression, the use of pantomime and pictorial depiction through bodily movement, spatial inflections of individual signs and of units of signed discourse, and the possibilities of complex simultaneities in expression, all play integral roles in signed discourse. (Kendon 2014, 3)

Here he repeats the presentation of SL by Liddell, especially accepting his proposed criterion of gradience and the ascription of “analogue” as the quality of SL elements. He even takes over Liddell’s claim that “spatial inflections” cannot be seen as linguistic. Referring to Liddell and Johnston et al. 2007, he concludes

If we accept, as surely we must, that utterances produced by living language users (speakers or signers [...]) in the ordinary co-present circumstances of life – diverse as these may be – always involve the mobilisation of several different semiotic systems in different modalities and deployed in an orchestrated relationship with one another, then we must go beyond the issue of trying to set a boundary between ‘language’ and ‘non-language’, and occupy ourselves, rather, with an approach that seeks to distinguish these different systems, at the same time analysing their interrelations. (Kendon 2014, 3)

This general statement could be accepted in principle but connected to the earlier taking over of Liddell’s conception of what is linguistic or not, it has to be refused on the grounds I discuss below. Presenting examples from manual (and nonmanual) activities during speech, Kendon writes:

I began this paper by discussing how sign language descriptions that used an analytic model borrowed from structural spoken language linguistics were not fully appropriate. This led to the idea that the concept of ‘language’, as it developed in academic linguistics in the first part of the twentieth century, is too narrow. If sign languages are to be considered true languages, and yet they are found to use modes of expression that cannot be accommodated by models derived from the description of spoken languages, then these models should be revised and our concept of ‘language’ should be changed,

accordingly. This, in turn, has suggested that spoken languages may also deserve a new model. In recent decades, it has become a commonplace to observe that, when speaking, speakers do more than utter words. They also engage in various kinds of visible bodily actions that are integrated with the activity of speaking. If this is looked upon from the point of view of how these actions contribute to the utterance as the speaker constructs it in the moment of interaction, a point of view I have tried to put forward here, it becomes clear that speakers also make use of the dimensions of expression that visible bodily action makes possible. Often this is done in ways that can be compared with the ways signers make use of these dimensions. A new model of language that might incorporate these aspects, however, would be a model that would accommodate language as a mode of action, rather than treating it as an abstract, quasi-static social institution. That is to say, *linguaging*, or *doing language*, would become the object of study [cf. 47]. In such a case, how visible bodily action is used in utterance construction by speakers becomes as much a part of the study of speakers as, necessarily, it is already a part of the study of signers. (Kendon 2014, 12f)

We have to analyse this text in-depth, in order to discover its complete meaning as well as necessary further considerations: The first argument is that SpL linguistics methods are not completely appropriate for the analysis of SL. This argument can be interpreted from different perspectives. If we choose the perspective that the findings about SpL given so far define *a priori* what can be evaluated as language³⁴, we need not wonder that SL cannot be considered “languages” as a whole. Taking this perspective, however, has as its trivial consequence that it cannot be guaranteed that linguistic methods developed for and with SpL will – rigidly and unchangedly applied – prove valid for another language type. The reason for excluding SL with this method does not come from SL’s lacking of language properties but from a too restricted assumption, namely that all languages have to equal SpL.³⁵

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. One example for this is the application of the minimal pair analysis in phonology, morphology, or syntax: If we decide to apply it also for simultaneously ordered elements (as it is already done in SpL phonology, cf. below),

³⁴ An example is Corbett’s 2006 definition of agreement: “Agreement in language relates to the correspondence between words in a sentence, in terms of gender, case, person, or number.” (book advertisement at <http://www.cambridge.org/at/academic/subjects/languages-linguistics/morphology/agreement?format=PB&isbn=9780521001700>).

³⁵ To illustrate that with a trivial example: If we define humans via their sex as only male or female, we fail to cover all humans. It is then not the “fault” of intersexuals that they cannot be evaluated as humans, but it is the fault of the analyser who uses inadequate instruments.

then the abstract method itself need not be changed and it can be fully applied to SL (this seems to be one main argument for the statement that “spoken language linguistics [methods] were not fully appropriate”). If we deny a simultaneous application [as Johnson and Liddell (2010) do], we end up with the inadequate evaluation of SL as described above. In my view, early SL linguists like Mandel or Stokoe had in mind such an abstract theory of language which covers both SpL and SL.

Kendon is right when he argues for a widened view on SpL as he describes it. But he transfers this more comprehensive view of SpL inadequately to SL, using Liddell’s interpretation of what is gestural. Kendon – like all other followers of the Gesture School’s view – does not discuss the fact that the relevant question concerning the language-gesture-system in SL is not whether it exists (it does) but to which extent we find gestures in SL texts and how they are operationally definable.

Kendon deduces from his first argument as analysed above that the traditional “concept” or “model” of language is “too narrow”. By that, it seems, Kendon takes the second perspective described above. He proposes even to change the model for spoken languages in the light of SL research. This is exactly what I have tried to show with McNeill’s “bend back” example as well as with my proposal for several speech-framed gestures. Kendon is right when he argues for a widened view on SpL as he describes it.³⁶ But he transfers this more comprehensive view of SpL inadequately to SL, using Liddell’s interpretation of what is gestural.³⁷ Kendon – like all other recipients of the Gesture School’s view – does not discuss the fact that the relevant question concerning the language-gesture-system in SL is not whether it exists (it does) but to which extent we find gestures in SL texts and how they are operationally definable. In contrast, he states “that speakers also make use of the dimensions of expression that visible bodily action makes possible.” (Kendon 2014, 12). With the next sentence he first states a similarity between signers’ and speakers’ bodily actions – which is phenomenologically true, naturally: „Often this is done in ways that can be compared with the ways signers make use of these dimensions.” (Kendon 2014, 12). Then he implicitly presumes that they are the same in status and/or function, i.e. gestural. This interpretation we can derive from the following parts of the text:

A new model of language that might incorporate these aspects, however, would be a model that would accommodate language as a mode of action,

³⁶ Therefore, we do not need to oppose the above as well as Kendon’s following general statement, because it is much the same as Hockett’s (1978: 276; cf. above): “That is to say, languaging, or doing language, would become the object of study [...]. In such a case, how visible bodily action is used in utterance construction by speakers becomes as much a part of the study of speakers as, necessarily, it is already a part of the study of signers.” (Kendon 2014, 12f)

³⁷ It is not completely clear whether Kendon follows Liddell in every of his evaluations of the language status of SL elements. It is only by recalling a quotation from above partially, that, from the general description of the possible candidates for an evaluation as “gestural”, we can conclude that this is very probable: “[...] gradient or analogical forms of expression, the use of pantomime and pictorial depiction through bodily movement, spatial inflections of individual signs and of units of signed discourse, and the possibilities of complex simultaneities in expression, [...]” (Kendon 2014, 3)

rather than treating it as an abstract, quasi-static social institution. (Kendon 2014, 12)

To “accommodate language as a mode of action, rather than treating it as an abstract, quasi-static social institution” can also be done without taking over the view of the Gesture School on SL (for an alternative view cf. Wilcox 2005 and the general conception of language by Cognitive Linguistics).³⁸

Kendon’s “mode of action” equals Liddell’s “language signal” which comprises linguistic and gestural elements (see below).³⁹ But as long as scientists differentiate between “language” and “gesture”, a cover term does not relieve us from the decision which elements in SpL and SL texts do have language status, and which do not. We could only abandon such a decision if we assume that all phenomena which appear within Kendon’s “language mode of action” or Liddell’s “language signal” are steered by the same system (“grammar”) and all underlie the same principles of a unique linguistic or semiotic theory.

2.3 Excursus: Does Traditional SpL Grammar Lack an Adequate Description of Speech-framed Gestures?

Related to the question of language status, the so-called “speech-framed” “speech-slotted” or “speech-linked gestures” pose a problem not only to gesture research but also to SpL linguistics: Structurally, these visual signs alone fill a slot in an otherwise incomplete syntactic structure of acoustic language signs or a slot for additional information, necessary for the sake of complete understanding. They can appear sequentially within the structure of the acoustic elements or simultaneously with them (for references cf. Müller, Bressemer and Ladewig 2013, 709). Because of their visual character they are evaluated as “gesture” in the context of SpL by definition, a practice which was never challenged in SpL linguistics. Therefore, they are evaluated as “non-linguistic”, though they give additional information which is not contained in the acoustic part of SpL. Sometimes this information is even crucial for a successful communication. Three main

³⁸ We could also say that – especially from a usage-based linguistic model of language – the language part in this comparison, set up “as an abstract, quasi-static social institution”, does not comply with actual linguistic theory any more.

³⁹ Looking at the abstract of an earlier publication by Kendon, we find a position which tries to integrate language and gesture but remains indifferent about the extent of these phenomena in SL texts. The statement also becomes questionable with its emphasis on “visible bodily action” in order to separate SL from the set of all languages, using its “kinesics” and “visibility”: “In recent discussions there has been a tendency to refer to ‘gesture’ and ‘sign’ as if these are distinct categories, sometimes even as if they are in opposition to one another. Here I trace the historical origins of this distinction. I suggest that it is a product of the application to the analysis of sign languages of a formalist model of language derived from structural linguistics, on the one hand, and, on the other, of a cognitive-psychological view of ‘gesture’ that emerged in the latter half of the twentieth century. I suggest that this division between ‘gesture’ and ‘sign’ tends to exaggerate differences and obscure areas of overlap. It should be replaced by a comparative semiotics of the utterance uses of visible bodily action. This will be better able to articulate the similarities and differences between how kinesics is used, according to whether and how it is employed in relation to other communicative modalities such as speech.” (Kendon 2008, 348)

groups of these elements are the directional (“pointing”) gestures, the gestures coding size and/or form of an object, and signs which demonstrate a certain action; all having sign status, being of indexical or iconic type.

Concerning obligatoriness in SpL, they can be replaced by acoustic SpL signs at any time (e.g. “there, left ahead of the traffic signal” or “has the form of a rectangle with a width of 1 meter” or “you have to handle this with your fingers around the shaft”), i.e. are variants of SpL signs. Both variants can also be used simultaneously (this makes some visual elements redundant). Concerning markedness, the visual variants may be evaluated as marked, related to SpL grammar,⁴⁰ but as they are the more expected variants rather often, due to economy (time of production and exactness, compared to rather long and complicated spoken descriptions) and related to the situational context,⁴¹ they may be evaluated as communicatively unmarked.

Considering the communicative function fulfilled in both SpL and SL, communication participants need sufficiently exact information about the location of an object or a direction/position in space mentioned in discourse concerning the actual physical situation. Only this information allows correct understanding. It can – aside with others – be performed by visual deictic signs. These work by identifying directions in three-dimensional space (including abstract or metaphoric use). This function is universal and needed for any communication act which is not intended to mislead the addressee. Therefore, the signs possess a unique specification concerning coding: Their directional part is directly determined by the direction towards the respective object (cf. Wrobel 2001). This uniqueness can be proven by the fact that addressees cannot “repair” an incorrect direction like mispronunciations of other SL or SpL signs.

Visual pointing is performed in SpL and SL, but its status is different concerning obligatoriness and function: In SL, the visually indexical elements are obligatory in unmarked presentational contexts (except in cases where deaf communication partners would like to avoid that another person sees their pointing, or in cases where a more explicit explanation is given, naturally also visually), they are additionally used in abstract (situationally independent) contexts and for the coding of pronouns. All these uses can be described by grammatical rules.

Size and form can also be coded in SpL and SL. In both language types, there are morphosyntactic slots which have to be obligatorily filled, but only in SpL there is a possibility to choose an acoustic and/or visual sign. Again, there are differences concerning obligatoriness and function: In SL, visual iconic coding is more or less obliga-

⁴⁰ The visual variant of size, form, or action presentation is very often marked by a lexeme or phrase like “so” or “this way”. This may be interpreted as making the recipient aware of the change in the modality of coding.

⁴¹ Cf. instructions of use in written language only with ones which use drawings or even videos. SpL variants are usual for situation-independent communication or technical/scientific contexts.

tory.⁴² In SpL size and form can be expressed by acoustic signs which are in almost all cases symbolic, and/or realised by iconic visual signs (i.e. the acoustic and visual mode can be synchronised).

Typologically, for obligatory structural slots, basic indexical and iconic visual coding patterns are obligatory in SL; in SpL there is a context-dependent choice between acoustic or visual signs. Special information has to be coded by acoustically lexical signs in SpL and visually lexical signs in SL.

Confronted with the fact that acoustic or visual signs may fill certain structural slots in sentences, the representatives of the “Gesture School” get into trouble when they should argue why these signs – coding more or less the same information in different modes – should have different language status. The way out of this dilemma, in my perspective, is to differentiate the evaluation of “non-linguistic” because it is too general: it would be better to use the terms “(non-)SpL-linguistic” or “acoustically (non-)linguistic”⁴³ and “visually (non-)linguistic”. This would allow to accept a combination of SpL- and SL-signs – both “linguistic” – for some types of spoken speech acts which are rather marginal concerning their status in SpL grammar but rather frequent in everyday communication (cf. Clark 2016). “Non-linguistic” would then be a term for phenomena which are excluded from every conceivable language.

Using this difference, we could evaluate “speech-framed gestures” in SpL description-adequately as “facultative visual signs for obligatory slots of SpL phrases”, assuming that such cases should be described in complete SpL grammars.⁴⁴ The corresponding visual elements of SL would keep their status of “visually linguistic”, due to the fact that they are easily describable in SL grammars.

2.4 Liddell’s Transfer of “Gesture” to SL and its Reception by Gesture Researchers

Kendon, McNeill, and many other authors emphasise that SpL and gesture are cognitively associated (cf. from a neural perspective Healey and Braun 2013). How the relation between “language” and “gesture” could be interpreted for SL,⁴⁵ was first discussed extensively by Liddell (2003). As there was no preceding systematic discussion of the notion of “gesture” within the context of SL, we have to assume that Liddell

⁴² I suppose that in different possible variants, we always find iconic coding as the preferred or the only possible strategy, except for information on colour or an exact measurement which have to be done via SL lexemes.

⁴³ The fact that still many SpL-oriented introductions to language and linguistics ignore SL (cf. Eifring and Thiel 2005, 1, Lehmann 2013) is a strong argument that “non-linguistic” is implicitly defined in the restricted sense of “acoustically non-linguistic”.

⁴⁴ “[...] co-speech gestures can fulfil syntactically as well as semantically attributive functions in German [...] This implies that they must be seen as part of the subject of German grammar.” (Fricke 2013: 735)

⁴⁵ Kendon (2016, 34) describes gesture accompanying SpL as “kinesics in partnership with speech” and SL as “systems for kinesic discourse”.

simply transferred the notion of “gesture” – which the gesture researchers had intended to define for SpL – to SL, probably because of the obvious similarity of the respective SL elements with gestural elements accompanying SpL. This transfer was performed although the separation of “language” from “gesture” in SpL, usually done by the definition that they occur in different modes, is logically excluded for SL as there is only the visual communication mode. It seems that Liddell tacitly assumed that “gesture” combines with SL, occurring either in a “co-sign” or a “sign-framed” context. This transfer includes McNeill’s usage of “conventionalisation”.

However, compared with gesture research and McNeill’s criteria, Liddell also changed several points proposed by McNeill:

- He ignored the fact that McNeill’s gesture types are defined via the presence or absence of speech.
- He introduced a dichotomy of language vs. gesture, valid for SpL as well as SL.
- Perhaps the most crucial point is that Liddell ignored McNeill’s criterion for language status, namely that only language elements can combine to units of a higher order.

Further, he did not consider the sign types of image, icon, and symbol.

This approach resulted in the implicit assumption that “gesture” in SL is principally the same as in SpL.⁴⁶ Reversely, Kendon (2005, 311–324) as well as McNeill (cf. McNeill and Duncan 2005) took over Liddell’s assumptions and conclusions without any verification as they obviously had no research of their own.

2.5 Recent Approaches Concerning Language “as an Activity of the Whole Body”

2.5.1 “Composite Utterance”

Taking the task “to infer what a person wants to say” (Enfield 2013, 689) as the most important one for the users of any language, Enfield describes the “composite utterance approach to meaning”. This approach confirms McNeill’s and Kendon’s hypothesis of a tight connection between language and gesture, insofar as it assumes that several activities in several channels of communication contribute to the meaning of a communicative act. However, Enfield’s findings relate to “speech-with-gesture composites” only. Methodologically, he identifies the notion of “conventional sign” with Peirce’s “symbol”, “non-conventional sign” with spontaneously produced unique “iconic” and “indexical” elements (Enfield 2013, 695; cf. quotation from page 696 above in 2.1.1.3).

⁴⁶ This perspective has negative consequences for the linguistic analysis of central parts of SL texts: As soon as some parts are declared “gestural”, they are no longer investigated in necessary depth concerning SL grammars and typology. It may even become arguable that SL texts are not completely linguistically analysable.

For all deictic signs, he uses the SpL tradition which sees them as “form-meaning mappings whose proper interpretation depends partly on convention and partly on context (Bühler [1934] 1982, Jakobson 1971, Silverstein 1976).” (Enfield 2013, 696)

From this perspective, deictic signs, now called “symbolic indexical”, turn out to be a “hybrid” of “conventional” and “non-conventional” signs, constituted by a symbolic (= arbitrary) form, e.g. of a personal pronoun of a SpL like “him” as the conventional, and the “non-conventional facts unique to the speech event (e.g. whichever male referent is most salient given our current joint attention and common ground).” (Enfield 2013, 696)

Here, we have to discuss first how the notion of “conventional” could be applied to speech events: There are ritual speech events which follow a social convention, which we should differentiate from the social convention concerning a language. Even everyday single speech events can contain such rituals, like a greeting form or how to take turns in conversation. To apply “convention” to the fact which person or object in a speech event needs to be identified by which activity, does not make any sense. In contrast, it makes sense to ask whether there are (general) conventions of identifying persons or objects under specific communicative circumstances. Here the answer is: yes, naturally. One of the conventional means in SpL is to use a showing gesture. It belongs to the convention that an integral part of this showing gesture, which is an indexical sign, produces the correct direction which allows the speech participants to identify the respective person or object.

The description of “him” as an arbitrary symbol is incorrect: Already the choice of the speaker to use “him” depends on the communicative situation: Adopting the quoted sentence above, we have to say that the “non-conventional fact”, “unique to” a certain speech event, namely that the speaker has to index a male participant, influences the production of “him”; the same is valid for the role this participant has in the respective sentence: The role “determines” that the speaker uses “him” instead of a possible “he”. Therefore “him” cannot be evaluated as “symbol”. Its choice is as dependent on the single speech situation (or event context) as is its visual counterpart, the INDEX in SL. That the latter shows a high similarity to the showing gesture in SpL cannot be taken as proof that it is “gestural” (cf. below).

Summarising, we have to differentiate conventions concerning the identification of persons or objects in different communicative situations (which are indispensable for successful communication; we could call them “conventions of application”), the special identifying activity of a speaker or signer in a single communicative event (which normally follow one of these conventions), and the conventions about single signs in languages. The latter include a special convention as a principle for indexical signs: The user has to produce an indexical sign with at least one element which gives a hint to the object or person indexed by linking grammatical information to the scene. According to the pronominal system of SpL, this may be the gender of the actual person and this may be the direction in which the addressees can find the actual person.

Using Peirce's token vs. type differentiation, Enfield assumes that all signs have a token identity, but only conventional signs or parts of signs (i.e. the symbolic part of indexicals) additionally have a type identity (the tokens of which Peirce called "replicas"). This difference makes it possible to assign to conventional signs a meaning "independent of context" (Enfield 2013, 696):

Conventional signs are pre-fabricated signs, already signs by their very nature. By contrast, non-conventional signs (including non-conventional components of symbolic indexicals) are tokens but not tokens of types. They are singularities (Kockelman 2005). They become signs only when taken as signs in context. (Enfield 2013, 696)

Compared to standard modern language philosophy and Cognitive Linguistics, this is an old-fashioned view on language signs, also with its implicit assumption of "one form – one meaning": Wittgenstein has already stated the meaning of a sign is constructed in the respective actual use and its context. Therefore, the statement that a special class of things only become signs in a context where they are used as signs is either empty or trivial: Everything used as a sign becomes a sign only in the actual use and if its use follows a number of conventions (or breaks those conventions explicitly, as in the arts). Additionally, Enfield's dichotomy of "pre-fabricated signs" (which "possess" their being a sign "in their very nature", whatever this is) and "singularities" (which have to wait to become signs in an adequate context) construct a categorial difference which contradicts the assumptions of a "tight connection" between language and gesture and of transition zones between them.

Instead of taking both parts of the "composite utterances" as equally important, Enfield adopts the traditional SpL perspective, summarising that "encoded" (we could say: traditionally defined SpL) meaning is "enriched" by communicative indexical and implicature strategies:

[E]ncoded meaning" encompasses both lexical and grammatical meaning. Grammatical signs show greater indexicality because they signify context-specific ties between two or more elements of a composite utterance (e.g. grammatical agreement, case-marking, etc. or between the speech event and a narrated event (Jakobson 1971); resolution of reference left open either explicitly (e.g. through symbolic indexicals like *this*) or implicitly (e.g. by simple co-placement in space or time; thus a "no smoking" sign need not specify "no smoking *here*"). "Enrichment through implicature" refers to Gricean token understandings, arising either through rational interpretation based on knowledge of a restricted system of code (i.e. informativeness scales and other mechanisms for Generalised Conversational Implicature; Levinson 2000), or through rational interpretation based on cultural or personal common ground (e.g. Particularised Conversational Implicatures

such as those based on a maxim of relevance; Sperber and Wilson 1995).
(Enfield 2013, 698)

Again, we find an old-fashioned dichotomy here: lexical and grammatical meaning are apparently interpreted as having a unique meaning in all possible instances of the same sentence or text, and the resolution of reference is separated from this meaning. Such a view does not respect the usage-based view that in communication two embodied cognitive systems (subjects) interact only on the basis of overt texts which are produced and understood from the experiences of these subjects with their language and not from an absolute meaning existing elsewhere, which has to be “re-interpreted” by the application of situational or contextual perceptions.

Related to SL, Enfield adopts Liddell’s and Okrent’s position:

The present account makes it clear that the visible components of a sign language utterance cannot be compared directly to the visible hand movements that accompany speech, nor to mere speech alone (i.e., with visible hand movements subtracted), but may only be properly compared to the entire speech-with-gesture composite (Liddell 2003; Okrent 2002). The unit of comparison in both cases must be the move. By the analysis advanced here, different components of a move in sign language will have different semiotic functions [...]: conventional signs with non-conventional signs, linked indexically. Take the example of sign language “classifier constructions” or “depicting verbs” (Liddell 2003: 261ff). In a typical construction of this kind, a single articulator (the hand) will be the vehicle for both a conventional sign component (a conventionalised hand shape such as the American Sign Language “vehicle classifier”) and a non-conventional sign component (some path of movement, often relative to a contextually established set of token spatial referents), where linking indexical mechanisms such as spatio-temporal co-placement and source in single creator are maximised through instantiation in single sign vehicle, i.e., one and the same hand). (Enfield 2013, 702)

We find the same relationship between a general scientific assumption and its biased application which leads to inadequate statements about SL: The “composite utterance” approach is interesting and could be applied adequately if we had a discussion about the relational extent of the gestural “singularities” and the language signs within texts. For SL, Enfield – adopting Liddell’s model – evaluates movement paths which are “relative to a contextually established set of token spatial referents” as singularities, while SpL-grammar elements with the same function and also including an indexical element, namely to identify e.g. the role of participants are seen as stable signs (at least partially). Enfield does not see that the spatial “singularities” follow the same rule as the grammatical indexes of SpL, namely: “to produce the indexical sign with at least one element which gives a hint to the object or person indexed by linking grammatical information

to the scene". In my perspective, Enfield's analysis proves the SpL bias in SL analysis which is mainly driven by the fact that spatial coding elements are taken as a priori non-linguistic because their production conditions deviate from those of SpL elements.

2.5.2 "Grammar of Gestures"

Müller, Bressem, and Ladewig specify Kendon's description of gestures which "manifest deliberate expressiveness" and gesture families (Kendon 2005, 15), abandoning McNeill's view of gestures as "global and synthetic" assuming "that the articulation of shapes, movements, positions and the orientation of hands, fingers and arms is meaningful." (Müller, Bressem and Ladewig 2013, 708)

That is, they adopt analytical methods developed in SL research more or less for gesture analysis and use the concept of "embodied conceptualisation" as a tool to analyse the iconic and indexical components of gestures. Like Enfield, they take up the traditional view of SpL linguistics when they see their work as

a cognitive take on the process of ad hoc meaning construction in the flow of a discourse: "*Meaning construction* is an on-line mental activity whereby speech participants create meanings in every communicative act on the basis of underspecified linguistic units." (Müller, Bressem, and Ladewig 2013, 709)

Concerning the status of gestures, they state:

We consider gestures to be a core partner in this interactive process of meaning construction, but we are *not* regarding co-verbal gestures as linguistic units in the full-fledged sense. However, we do take the position that gestures may take over functions of linguistic units either in collaboration or in exchange with vocal linguistic units. (Müller, Bressem, and Ladewig 2013, 709)

They specify this by listing evolutionary and developmental as well as phenomena of interaction between gesture and SpL:

[F]irst: co-verbal gestures show properties of form and meaning which are prerequisites of language and which [...] may evolve into a more or less full-fledged linguistic system such as a sign language or an alternate sign language [...] Second, when used in conjunction with speech, co-verbal gestures may take over grammatical functions, such as that of verbs, nouns, or attributes pointing to a multimodal nature of grammar. (Müller, Bressem, and Ladewig 2013, 711)

Here we find the view of SL which is adequate in my perspective: There are many "family resemblances between gesture and SL, but SL should be analysed with the assumption that it is a "more or less full-fledged linguistic system".

Abandoning McNeill's view of gestures not combining and following Kendon's findings, Müller, Bressem, and Ladewig write:

Taking a form-based view on gesture analysis [...] involves the consideration of linear patterns and structures of the gestural movement. [...] Pioneering work by Kendon (1972, 1980) documented that gestures are structured linearly. Kendon distinguishes units of varying sizes, ranging from gesture phrases to gesture units to posture shifts. He finds, moreover, that this hierarchical structure of units of body movement goes along with a similar hierarchy in the speech units they accompany. [...] [T]he more body parts involved in the movement changes, the larger the conversational unit they go along with (Kendon 1972, 1980). (Müller, Bressem, and Ladewig 2013, 722)

They describe the following types of gesture combinations:

- (i) One gesture might be repeated several times, resulting in the repetition of the same gestural meaning (iteration) or in the creation of a new gestural meaning (reduplication).
- (ii) Several gestures depicting objects, actions, events in a literal (McNeill's iconic) or metaphoric manner (McNeill's metaphors) may combine to describe an entire scenario.
- (iii) Several pragmatic and performative gestures (the Ring Gesture, the Palm Up Open Hand [...], the Away Gestures) may combine. They are typically found in argumentative discourses.
- (iv) The three types might combine, with pragmatic and performative gestures often located at the beginning or end of speaking turns (very often with metapragmatic functions) and depictive gestures often placed in the middle of gesture sequences.

(Müller, Bressem, and Ladewig 2013: 723)

Though working exclusively on SpL, Müller, Bressem, and Ladewig offer a model of language-gesture analysis which could also be adopted for SL.

2.5.3 A "Unified Grammar of Gesture and Speech"

Fricke 2013 – also concentrating on co-speech gestures – resorts to a SpL linguistics tradition assuming the multimodality of language (Wundt, Bühler, Hjelmslev, and Pike) and argues for a "unified grammar of gesture and speech". She analyses the arguments against co-speech gestures as "potential units of the language system", namely their lack of conventionalisation and segmentability (Fricke 2013, 734). She tries to invalidate them by pointing to emblems and the possibility to analyse gestures by "kinesthemes", i.e. "submorphemic units, which [allow] for modeling semiotic processes of typification and semantisation" as well as for developing "gestural constituent structures":

This concept [of kinesthemes, F.D.] supports the assumption of a “rudimentary morphology” (Müller 2004: 3) as well as substantiating the category of “recurrent gestures” located between idiosyncratic and emblematic gestures in Kendon’s continuum. (Fricke 2013, 735)

According to Fricke, co-speech gestures have to be dealt with in SpL grammar, as they show essential linguistic properties, such as recursion. However, the questions how far this “rudimentary morphology” can be interpreted functionally, and whether the use of gesture in SpL is fully compatible with grammar, remain open.

These new developments in gesture research show interesting new facets of gesture use in SpL which offer new approaches to SL research if we avoid taking over the existing interpretation of the percentage of gestures in SL texts promoted by the Gesture School.

3 Liddell’s Model

In the last chapter of his book, Liddell summarises his view of SL:

I have been describing the ASL language signal as consisting of combinations of signs, grammatical constructions, gradience in the signal produced by the primary articulators as signs are produced, and gestural activities independent of the primary articulators. (Liddell 2003, 357)

This view comes from SpL-linguistics, where Liddell evaluates meaningful, but “gradient” acoustic elements as well as meaningful gestures – though accepted as parts of the speech signal – as having no language status. Gradience and production in the visual channel are here taken as criteria for the decision on the linguistic status of communicative elements. Applying these two criteria to SL, Liddell excludes manually produced elements by their gradience and non-manual elements by their postulated identity with gesture in SpL context from the set of language elements.⁴⁷

Liddell’s presentations are not completely clear, however. He declares that in the field of intonation there are “linguistic” (= categorial) and “paralinguistic” (= gradient) areas (Liddell 2003, 71). But it seems that he only accepts segmental tone (as in tone languages) as “linguistic” (Liddell 2003, ix–x).⁴⁸ Concerning SL, he summarises his standpoint as follows:

The analyses in this book treat directional uses of signs as gradient and gestural phenomena driven by grammar and by meaning construction. Attempting to characterise the use of space in ASL involves an integration of

⁴⁷ Looking at the quoted text in detail, it seems that Liddell does not even ascribe sign status to these non-linguistic elements.

⁴⁸ The only argument he poses there against the language status e.g. of syntactic intonation is that it is very rarely investigated. That is, the practice of research replaces linguistic criteria.

grammar, gesture, and gradience in the process of constructing meaning by means of mental space mappings (Liddell 2003, xi)

As a consequence, a crucial part of spatial coding strategies in SL – these are central to SL coding – is excluded from having language status.⁴⁹ This means that none of the related phenomena can be described categorically. Combined with Liddell’s statement that the use of space represents the “major difference” between SL and SpL, this illustrates the massive SpL bias against SL. To quote from the final chapter:

[T]he ASL language signal consists of more than conventional linguistic forms. It also includes gradient aspects of the signal (typically directional aspects or placement), and gestures of various types. All of these coordinated and integrated activities constitute the language signal and contribute to expressing the conceptual structure underlying the utterance. There is no evidence that signers give more significance to grammatically encoded meanings than they give to other meaningful aspects of the signal. [...] The gradient and gestural aspects of the signal are not peripheral or paralinguistic. They are required to be present and central to the meanings being expressed. In the case of ASL, restricting the analysis of language to symbolic units and their grammatical organization is hopelessly inadequate. (Liddell 2003, 362)

One could agree with Liddell when he argues for a comprehensive understanding of “language”, including all elements which are important for the construction of meaning. He even writes that the gestural elements of SL were neither “peripheral” nor “paralinguistic”.⁵⁰ On the other hand, he constructs a fundamental difference between “categorical” and “non-categorical” elements, implicitly relating categoricity and – using McNeill’s criterion – conventionalisation. But, while the non-categorical elements in LS had only marginal status, they were central in SL (Liddell 2003, xi and 357).⁵¹ Why,

⁴⁹ I do not aim to deny the existence of any gestural or paralinguistic elements in SL. E.g. angry or glad signing has a “paralinguistic” component. Additionally, gesture is used when the behaviour of a person is not coded by signs of SL but reconstructed using gestural elements in Constructed Action. Moreover, I do not deny gestural elements as sources for SL elements (cf. Wilcox 2005): “[S]ign languages evolve by a process that takes perceptually and productively distinct visual and motion characteristics and grammaticalises them into distinct units that convey lexical or functional meanings. Both the vocabulary and the structural processes that construct sentences are overlaid on the physical and geometrical substrata.” (Wilbur 2013, 244) I only want to restrict the extent of gestural elements to a methodologically adequate measure.

⁵⁰ The question is whether “language signals” should be compared to the entirety of all phenomena appearing in language production. Then it would comprise Saussure’s “langue” and “parole”, or Chomsky’s “competence” and “performance” (these notion pairs separate the “language part” (or the knowledge of the ideal speaker) from all what is irrelevant for the message). Or does “language signal” only mean the relevant parts?

⁵¹ Hodge and Johnston give us a number of non-linguistic elements in normal SL texts: “We find that one-third of the core elements in the single clause-like units in these Auslan narratives are expressed via pointing signs, depicting signs, gestures and enactments, in various orders.” (Hodge and Johnston 2014, 262)

then, should these elements not have (sign) language status? Again, we see the SpL-bias illustrated when he states that ASL showed all types of lexemes and grammatical processes which can be found in SpL, adding:

Some signs have not only the properties one would expect of a word in a vocally produced language, but also additional properties such as the need to be directed toward some entity, the need to be placed within space, the need for the signer to direct his face and eye gaze toward some entity [...], or the need to perform constructed actions within a surrogate blend. (Liddell 2003, 355)

Liddell has never solved these inconsistencies.⁵² Wilbur reacts to that, stating: “If gesture is not outside of language (as per Langacker 1991), what does it mean to say that something is gestural? If gesture is part of language, then gesture is linguistic.” (Wilbur 2013, 237)⁵³

Liddell is also inconsistent in his use of “grammar”: It remains unclear whether his phrase “directional uses of signs as gradient and gestural phenomena driven by grammar and by meaning construction” (cf. the quotation Liddell 2003, xi, above) means, that “directional uses” are “steered” by grammar, while the “gestural phenomena” are “steered” by “meaning construction”,⁵⁴ or whether both phenomena depend on grammar as well as “meaning construction”. Once he relates “grammar” only to the “catego-

⁵² The text announcing Liddell’s book on the website of Cambridge University Press shows similarly unclear formulations: “In sign languages of the deaf some signs can meaningfully point toward things or can be meaningfully placed in the space ahead of the signer. This obligatory part of fluent grammatical signing has no parallel in vocally produced languages. [...] The book demonstrates a remarkable integration of grammar and gesture in the service of constructing meaning. These results also suggest that our concept of ‘language’ has been much too narrow and that a more comprehensive look at vocally produced languages will reveal the same integration of gestural, gradient, and symbolic elements. [...] [the book] Challenges customary notions of what constitutes ‘language’” (<http://www.cambridge.org/at/academic/subjects/languages-linguistics/sign-language/grammar-gesture-and-meaning-american-sign-language?format=PB&isbn=9780521016506>) Concerning the inconsistency in the use of “language element” and “element of the speech signal”, we find a parallel to Liddell in McNeill 2007b, who describes his “terminological tango”: once – following linguistics – “language” being separated from gesture, once – in “traditional use” – “language” containing “gesture” and “speech”. But then he restricts himself to SpL: “language includes spontaneous, speech-synchronised gestures”. This type of gesture “is certainly not ‘part’ of grammar (it is linked to the context of speaking in ways that grammar, because it depends on repeatability, cannot capture)”. (McNeill 2007b, 21)

Concerning SpL, there is a rather good correlation between non-linguistic/gestural and the notion of performance which means the individually or actually shaping of speech. What Liddell takes as gestural in SL has almost nothing to do with this performance; that is, he does not analogically reason from SpL to SL. Rather, he separates grammatical knowledge (e.g. related to the rules of spatial coding) from real production which he declares as “gradient”.

⁵³ Wilbur refers to a quote from Liddell (2011) she makes before the sentences cited:

“Since Liddell (1995) my published work has been carried out within the theory of Cognitive Linguistics, which does not treat gesture as being outside of language. When describing the pointing that frequently accompanies the English word *this*, for example, Langacker (1991: 102) states that “in cognitive grammar this gesture is unproblematically considered an aspect of the demonstrative’s form, and its import an aspect of its meaning.” Liddell [(2000)] argues that the directionality of indicating verbs and non-first person pronouns is gestural.” (Liddell 2011, 161)

⁵⁴ Even the exact difference between “grammar” and “meaning construction” remains unexplained.

rial” elements – cf. the quotation Liddell (2003, 362) above where he separates “grammatically encoded meanings” (= categorial) from gradient “other meaningful aspects of the signal”. Otherwise he states: “Knowing the grammar of ASL includes knowing that pronouns must be properly directed toward referents.” (Liddell 2003, 355)

Then he clarifies:

Since pronouns encode meanings, they are part of the symbolic inventory of ASL. The need to direct a pronoun [...] is also part of its lexical structure. A pronoun’s direction, however, does not depend on a set of symbolic locations or directions, but rather, depends on the locations of things in real space or in real-space blends. Instead of selecting from a grammatically defined list of possible directions, the signer must select a direction that leads to the pronoun’s referent either in real space or in a real-space blend. In this sense, the directionality of the finger during any particular instance of PRO^{>x} is gradient. This places the specific direction outside the set of ASL’s symbolic resources since it does not encode – it points. For pronouns in general, the *need to point* is part of the grammatical knowledge but the specific direction of pointing is not. (Liddell 2003, 355)

This text shows two misunderstandings: The first relates to the coding type of indexical signs. They do not code the object as such but induce a relation to it. In SpL, this takes place via the production of acoustic deictic or anaphoric elements at appropriate positions within the sequentially processed text, sometimes accompanied by a pointing gesture. For reasons of salience their coding includes one or more specific properties of the object; e.g. gender and/or number. In SL the same strategy works visually only, by coding the position of or direction towards the object – phenomenologically an equivalent of the pointing gesture in SpL. Liddell uses two different terms, “encode” for elements which he evaluates as linguistic, and “point” for the indexical sign parts he evaluates as non-linguistic. But the difference is not one between linguistic and non-linguistic; it is one between symbolic and indexical coding. In referring only to the symbolic inventory of ASL, Liddell ignores that all languages have also an indexical inventory of signs (and that SL have a much greater inventory of iconic signs than SpL).

The second misunderstanding relates to visual coding via the localisation in three-dimensional space: An exhaustive description of three-dimensional space can only be done by using a system of metric coordinates with values along three axes. As it needs technical resources because humans do not have a respective “metrical cognition”, this sort of representation is only a very specific case in special contexts. In contrast, space is cognitively represented by salient “anchor” positions (e.g. a specific object) and – partially egocentric – local relations (e.g. “under” or “left”), sometimes with metrical information based on estimation from experience. In SpL, these are coded symbolically and/or deictically, the latter under specific conditions also iconically via gestures. Communication context and goal determine the accurateness of the coding from “come

down!” (within the context of joint knowledge of the communication partners about source and goal) to “the westernmost house in the northern part of the quarter”. Another possibility is the use of a general deictic, such as “there”, either with spoken description or pointing gesture.

For SL, the same possibilities exist. The only difference is that SpL cannot exploit a spatial resource for acoustic coding but refers to other resources, namely gender and number, while SL cannot exploit the latter and therefore uses the spatial resources. Liddell’s problem is the status of the element equivalent to the pointing gesture in SpL; for the solution cf. section 3.2.3. Liddell uses a terminological trick to establish a categorical difference between pronouns in SpL and SL: SpL pronouns “encode” because they are symbolic signs, while SL pronouns only “point”. By that he ignores that also indexical signs “encode”, they only do that in a different way than the symbolic or iconic signs. In other words: “pointing” is one valid strategy to “encode” information.

There is no language by which we could describe three-dimensional space using a “grammatically defined list of possible directions”. Therefore, not only SL users must resort to this space directly – by visual deictics – in their everyday practice of economic communication, but SpL users must do so, too.

It is economic that a visually coded language uses visual coding strategies and transports more visual information directly than an acoustically coded one: Space is constitutive for articulatory parameters in general and not only for localisation. To turn this basic visuality against the visual languages from a non-visual, acoustic standpoint, is a fatal mistake.

Liddell overlooks that there are deictic pronouns in both SL and SpL. The only difference is that SpL cannot exploit a spatial resource for acoustic coding but refers to other resources, namely gender and number, while SL cannot exploit the latter and therefore uses the spatial resources.

The following quote shows Liddell’s odd bias towards SpL, assuming that tongue and hands have to be used for the same coding strategies:

The fact that directional verbs can be directed toward entities, including physically present people, presents an analytical problem not faced in the analysis of a vocally produced language because the tongue does not meaningfully point at things in the environment as it participates in articulating words. (Liddell 2003, ix)

3.1 Liddell’s Methodological Prerequisites

Methodologically, Johnson and Liddell 2010 deny the possibility of modality-independent linguistic research by insisting that a minimal pair analysis can only be performed sequentially:

Claiming that ASL *ONION* and *APPLE* compose a minimal pair requires changing the definition to eliminate the concept of sequential contrast. How-

ever, once the concept of minimal pairs is defined differently for speech and sign, it is no longer the same concept. Thus, claiming that APPLE and ONION constitute a minimal pair is tantamount to claiming that they are equivalent to the pair [pat] pot and [tat] tot. But it appears so only because the fundamental definition of minimal pair has been altered in order to make it fit Stokoe's conception of the structure of APPLE and ONION. From this perspective, then, APPLE and ONION do not constitute a minimal pair in the same sense that the term has been traditionally used in describing vocally produced languages. (Johnson and Liddell 2010, 252)

Johnson and Liddell 2010 ignore that even in SpL we get simultaneous oppositions if we turn away from a phonemic notation towards one using distinctive features: There we get minimal pairs like /voiced/ vs. /voiceless/ instead of /b/ vs. /p/ (all other simultaneous features of both vowels being identical). This makes clear that the minimal pair method only makes sense as a general tool if we apply it sequentially as well as simultaneously. Then it can be used modality-independent for the identification of minimal contrast. Johnson and Liddell (2010) deprive themselves of an in-depth comparison of formational aspects of SpL and SL, however.

3.2 Liddell's Criteria for Language Status

Liddell's central criterion for the decision about the language status of communicative elements is "gradience".⁵⁵ Aside from this notion, others like "(complete) listability", "one form – one meaning", the application of a modified version of Mental Space Theory and the transfer of the concept of "Constructed Action" to SL play a major role. The introduction of new terms for verbs like "indicating" or "depicting" helps to construct an almost a-priori segregation of language and gesture as intended.

The axiom behind the application of the gradience criterion is that language elements are, without exception, categorical.⁵⁶ Categorical elements have to be identified by opera-

⁵⁵ Cf. Wasow (n.d.):

"The term 'gradient' appears in dictionaries I have consulted only as a noun but is often used as an adjective by linguists. The noun 'gradience' does not appear in dictionaries; Wikipedia attributes its coinage to Dwight Bolinger. I use 'gradient' (as seems to be standard among linguists) as a rough synonym for 'graded' and as an antonym for 'categorical'; I use 'gradience' as a nominalisation of this use of 'gradient', denoting the property of being gradient." (Wasow n.d., 1)

In dictionaries, the meaning of 'gradient' is described by 'rising or descending by regular degrees of inclination' or 'sloping uniformly'. Usage examples can be found at <http://grammar.about.com/od/fh/g/gradience-term.htm>.

⁵⁶ "I was taught that there was a real, legitimate distinction between linguistic phenomena and non-linguistic phenomena. The claimed contrast between these two categories suggests that there are logical criteria that can be used to divide communicative behaviours as either being linguistic or not. As best as I can determine, the term 'linguistic' as used by generativists includes categorical phenomena identifiable in the speech stream and excludes co-speech gestures and other gradient phenomena, including gradient phenomena within the speech stream (meaningful gradient changes in loudness, duration, pitch, vocal quality, etc.)." (Liddell, personal communication)

tional tests, such as minimal pairs, deletion, permutation, replacement etc. As Johnson and Liddell (2010) exclude simultaneous arrangements from morphological analysis (cf. above), the respective SL elements cannot get linguistic status in Liddell's model. Additionally, Liddell assumes that there is a distinct correlation of form and meaning for categorial elements.

3.2.1 Gradience

Even if I could not prove that Liddell's evaluations concerning gradience of SL elements are not tenable, there are opposite opinions in linguistics concerning Liddell's axiom that only categorial elements have language status.⁵⁷ Grammar and gradience are not only seen as compatible; especially Cognitive Grammar shows with the prototypicality of categories that gradience is inherent to cognitive processes (cf. Traugott and Trousdale 2010).

Liddell postulates gradience, from which he deduces his evaluation of "non-linguistic",⁵⁸ for two large areas of SL:

1. All codings which relate to position or movement of persons/objects in space, namely deictic elements (including personal pronouns), local adverbs, agreement, as well as spatial verbs and loci.
2. Verbal phrases with detailed visual elements as in so-called classifier constructions.

Signs of the first type contain a directional or positional part which is related to physical space or its use in signing. They represent the use of space for coding in SL prototypically, applying deictic and iconic strategies. Functionally, visual deictic signs or sign parts serve for the identification or localisation of referents or for coding their movement, in agreement verbs they serve for the identification of participant roles. Reference points (loci) are set by the signers in order to allow reidentification of referents during discourse.

Signs of the second type are iconic representations of concepts. Here, the representatives of the "Gesture School" again use a terminological trick in order to avoid a notion such as "iconic sign/language element"; cf. Dudis:

"that in order to demonstrate that something is linguistic, one must show its categorial nature." (Liddell 2003, 70)

There are opposing opinions in linguistics, however, cf. Coetzee n.d., Traugott and Trousdale 2010, Kagan 2015, and generally:

"We must therefore ask whether the basic discreteness commonly assumed by linguistic theorists has been **discovered in** language or **imposed on it**." (Langacker 2008, 13; emphasis by the author)

⁵⁷ Cf. Bybee (2010, 2), Hay and Baayen 2005, 346), Wasow (n.d.) and Coetzee (n.d.) on the gradience of evaluations of grammaticality or acceptability, or Behrens (2015, 13).

⁵⁸ I do not consider the notion of "conventionalisation" in relation to the status of SL elements because Liddell 2003 does not use it; cf. Johnston 2014.

Signed language discourse exhibits depictions of virtually any entity. Some of these depictions arise via the use of the body, as in the depiction of human physical actions. Others also make use of space, as in the depiction of a spatial relation between two entities within a setting. That the body and space are the material with which both the depiction of actions and spatial relationships are produced is quite evident. (Dudis 2011, 3)

Liddell constructs gradience as follows: Because the hand can be posited at, directed or moved towards every point in space (this is valid similarly for other articulators like gaze or the body), the production of the respective elements cannot be restricted to a predefined, finite number of points or directions (cf. Liddell 2003, ix and chapter 3).⁵⁹ Because of the uncountable number of positions (i.e. geometrically defined points in space) it is impossible to subdivide space into a finite number of areas and therefore an assumed “location morpheme” cannot be sufficiently specified.⁶⁰ Instead, these location elements have to be rated as gradient and cannot be ascribed language status but a gestural one. As a consequence, the respective signs contain a constitutive gestural part.⁶¹ Obviously, Liddell is not aware of the fact that the function of indexical elements of SL is not to divide the three-dimensional space as a whole into a countable number of sectors or an uncountable number of points, but either to show the position or movement of one or a few objects in space or to use such positions/directions for agreement and anaphoric purposes. I suppose that behind Liddell’s view we can detect

3.2.1.1 A Principal Misunderstanding of Human Orientation in Space and the Related Coding

Visual cognition is processed within a scenic view of events in the world. Within the scenes, we can steer our attention to certain single elements of the scene. At the same time, our scenic view is primarily socially (and egocentrically) grounded.⁶² This “human coordinate system” includes positions for the ego (“I”), for ego’s dialogue partners

⁵⁹ “The fact that signs can be directed in an unlimited number of ways toward things which are not part of that language presents a difficult analytical problem. Specifically, the manner in which signs which use space are placed or directed is not listable in the grammar. [...] The problem which arises here relates to having a sufficient number of morphemes to correctly describe the ways that signs are directed in space. There cannot be a discrete morphemic solution, since there are too many possible locations and there could not be a morpheme for each possible location or direction.” (Liddell 2000, 344)

⁶⁰ Cf.: “As mentioned earlier, the linguistic system cannot directly refer to areas within gestural space [...]. Otherwise one runs into troubles listing an infinite number of areas in gestural space in the lexicon [...].” (Mathur and Rathmann 2012, 144)

⁶¹ The direction and goal of the movement constitutes a gestural component of the sign. (Liddell 2000, 345)
Because PRO can be directed in virtually any direction, a part of its phonetic form is not lexically fixed. (Liddell 1995, 24)
[...] the use of space in sign languages is carried out through a combination of linguistic features and gestural pointing. (Liddell 2000, 332)

⁶² Cf. Wilbur (2013, 241f) and her quotation from Langacker (2013, 242).

(“you”) and others (“3rd person”). Coding of language is performed with respect to this “coordinate system” in which these positions are taken as a base which remains unchanged regardless of the locations of these positions in the three-dimensional physical coordinate system.⁶³

In general, we must not confuse human perception of space with its geometric description (cf. Wilbur 2013, 223f). Only the first is the basis of codings in languages, including visual ones. As already mentioned, humans do not have a metrical perception and are incapable of identifying a point in space by its coordinates (e.g. $x=150$, $y=-23$, $z=530$ mm) or to point to the specified position without technical instruments. Therefore, the human practice of “pointing to an object” should not be confused with selecting a point in space, geometrically determined by coordinates on three axes.⁶⁴ Its function is to give addressees sufficiently exact information to identify an object referred to.⁶⁵ This is done by coding the direction towards the object (normally without coding any distance). Due to practical communicative and linguistic conditions and limits, there are only a few (normally up to three) objects represented in one communication act (cf. Wilbur 2013, 227f).

As there is no real “point”, then, in coding, the whole discussion on the linguistic status of loci or R-loci is obsolete (cf. Wilbur 2013, 231–237). In addition to the confusion of point and direction, Liddell constructs an absolute limit between space and language,⁶⁶ arguing that elements of space could never be units of language. He denies that the concept of a “spatial index/locus” is useful because such elements of space cannot be ascribed meaning⁶⁷:

The concept of a meaningful locus [...] is an artifact of the search for a part of a sign – its location – that could account for the meaning that results from its directionality.

⁶³ This is what Wilbur describes as follows: “[I]t is the geometric point (not any actual point with x, y, z coordinates) which can be placed anywhere but always provides the same semantics, namely that an individual exists.” (Wilbur 2013, 223)

⁶⁴ Insofar, the verb “pointing” is somehow misleading because we can almost never afford to select a real “point” in space. Therefore, Liddell’s (2003, 66–78) critique against points in space as linguistic units is inadequate. By the way, the German equivalent to “pointing (gesture)” is “Zeigegeste”. Translated back to English, this would be “show(ing) gesture” which does not contain the element “point”.

⁶⁵ As Wilbur puts it: “[T]he referents that I establish are conversation dependent, and the choices of locations in space for use in referring to them are also conversation dependent, but what is not conversation dependent is that the addressee must be able to clearly see which location I intend to reference. This means that if I establish only one referent on my right and another on my left, any point on the right and any point on the left will serve the function of keeping these referents distinct. [...] If I introduce a third referent, I must pick a clearly distinguishable point.” (Wilbur 2013, 227)

⁶⁶ The location is not dependent on any linguistic features or any linguistic category. Instead it comes directly from the signer’s view of the surrounding environment (i.e. Real Space). (Liddell 1995, 26)

⁶⁷ Moreover, Liddell (2000, 335) argues against the assumption of a unitary locus: With some agreement verbs the signer has to code different locus heights (e.g. when coding the communication between adults and children). He introduces the notions “token” (for verbs with unitary locus) and “surrogate” (for verbs with different loci).

The final location of the hand is not describable in terms of a fixed set of phonological or phonetic features. The final location of the hand in producing TELL^{>y} or PUT-QUESTION^{>y} will depend on the location of the entities these verbs are directed toward and the signer's judgement about making a path that leads from the starting point of the sign toward the entity to map onto its landmark. (Liddell 2003, 137)

The argument is correct insofar as the respective codings should not be described under "location" but under "direction (of movement)".⁶⁸ By doing so, the iconic representation of the basic conceptual metaphor "from SOURCE to GOAL" is much better represented. But Liddell confuses the elements of space with the linguistic coding related to them which also uses spatial parameters but not the points of space themselves. And he is wrong in assuming that such a coding can be done without establishing any relation to or within the perceived space.

It has to be emphasised that the perceived space is a cognitive model of three-dimensional space and therefore does not differ from any cognitive event model. Instead, many cognitive event models contain spatial (as well as temporal) information. The categorical quality difference exists between three-dimensional space with the events contained in it as the "physical reality" and the cognitive processing of the physical reality, not between spatial and non-spatial cognitions. Therefore, separating spatial from non-spatial cognition or spatial from non-spatial coding of language cannot serve to differentiate language and gesture.

To reach more clarity, I propose to differentiate between the gradience of phenomena existing effectively and a gradience which is produced by inadequate analytic methods:

3.2.1.2 Gradience as a Feature of Language Production

Principally, every action of an organism is gradient to some extent. This means that no complex organism can repeat a certain action exactly in the same manner as a past one. This is due to the fact that the steering of actions by the brain is not a technical process, working with exact parameters. Instead, the steering works along patterns and their approximative realisations, related to some sort of "fuzzy programme" to reach an intended or an unconsciously pursued goal. Language production is no exception: e. g. the formant values of speech vowels filled into a chart show considerable variation within the realisations of one sound and even overlappings between adjacent sounds (cf. Hillenbrand et al. 1995, 3103f). As a consequence, no single realisation of a speech sound or sign is identical with any other realisation of the same element. Moreover, not

⁶⁸ Would the signers really use a single point with metrical coordinates in three-dimensional space for their coding, they would have to sort it out. This could only happen approximately by identifying the "point" at the end of their digit as the chosen one. But no signer would be able to reach the same "point" in anaphoric reference action. Instead, signers use a "sufficiently exact direction" for referencing.

all realisations of adjacent phonemes like /e/ and /i/ can be differentiated categorically. As a consequence, non-prototypical realisations (e.g. in non-accented sentence position) can only be differentiated by using the context. The same is valid for parameter values and signs of SL, where production conditions including coarticulation are the same as in SpL. How can we explain, then, that people usually clearly identify sounds or parameters as well as SpL and SL signs?

The answer is that the perception of complex organisms is adapted to extract functionally categorial interpretations from physically gradient events (cf. Wilbur 2013, 228).⁶⁹ Concerning language production and reception, we may say that our cognition is adapted to the production of gradient signs which are categorically processed as realisations of characteristic, different patterns, partially with respect to the context. Liddell seems to ignore this basic relationship between gradient production and categorial cognition; cf. his discussion of intonation in SpL (Liddell 2003, x). Naturally, this sort of gradience exists also for deictic or locational elements in SL in the sense that e.g. no repeated INDEX to a certain object or locus hits the identical direction as its precursors. But, within this gradience, if produced adequately, they can be interpreted as the identification of the single object which is meant in discourse.

3.2.1.3 Gradience as the Outcome of an Inadequate Method

Which strategy has to be applied in order to reach Liddell's result that e.g. INDEX as a class or other location elements (e.g. those constituting agreement) are gradient from a categorial perspective? Without any consideration of their respective function in their special context, we collect a great number of realisations of INDEX and analyse their parameters: It turns out that the handshape remains the same, but direction and/or orientation can show any value in three-dimensional space, i.e. are "undetermined". Now we resort to our SpL bias and apply the "categorical law" that deictic or locational elements (like "this" or "here") have only one form, fulfilling the axiom "one meaning – one form". From the assumption that in SL direction and/or orientation deviate from this principle, we deduce that the respective sign parts are non-linguistic.

In analysing SL, we have the following alternative choice for describing directions: We can take the physical, three-dimensional coordinates of every realised direction,⁷⁰ or we can take directions relative to the position and orientation of a signer in space and his/her communicative intent. This choice must not be changed for different classes of signs because that would violate descriptiveness. Using the INDEX, the signer's

⁶⁹ This can be described by Catastrophe Theory (cf. Wildgen 1995). The construct of the phoneme by linguists is also a proof for the strong variation in sound production.

⁷⁰ The metrical description of e.g. the direction of an INDEX should have the form "Digit shows to point ($x=350/y=-23/z=130$ cm in the respective coordinate system". Such a metrical description of space-oriented visually deictic elements is not adequate. Instead, we need a functional description of the direction parameter of an INDEX like: "Digit indicates object meant". The same is valid for signs coding cardinal directions.

intention is “to show the direction towards the object referred to”, or, e.g. a cardinal direction. It turns out quickly that choosing the first alternative leaves us with the impossibility of describing any signing action linguistically: As signers can orient their body to any point of the compass, every sign would appear to have gradient direction and orientation parameters in the sense that these parameters cannot be fixed for the description of the respective sign.⁷¹ That is, the signer’s body/face being oriented to the North, the orientation of the hands in ASL HOUSE had to be described as “westward” and “eastward”, while signing HOUSE to the West would create an orientation to North and South, respectively. Every SL linguist will reject such a strategy of description for e.g. SL nouns and explain that we have to describe “direction” and “orientation” in relation to the signer’s position/orientation in space. But some SL linguists would take out several classes of SL signs, like INDEX and agreement verbs, of this relative treatment, using the first alternative of description for them. This is an error in reasoning which violates the principle of a uniform description strategy. Additionally, it ignores the signer’s cognition of the communicative situation or of a cognitive map concerning a narrated or invented scene. In these cognitive maps, every participant or object has its place and the signer’s text production respects the relative positions in his/her map by choosing the directional parameters relative to these positions. Therefore, choosing the adequate strategy of description, i.e. the one which uniformly assumes relative directions, no single INDEX or agreement morpheme can be evaluated as underdetermined or gradient as Liddell and others claim.

3.2.1.4 Gradience as the Outcome of Misunderstanding the Constitution of Meaning in Indexical and Iconic Signs

In SL, referents can be identified by coding the direction to their location (be they present or absent). This is valid for categories like INDEX or possessive pronouns (in Austrian Sign Language the palm is oriented towards the respective direction). The same coding of direction is also used for all relations which can be interpreted by SOURCE-GOAL. For SpL, semantic (functional) maps (cf. Haspelmath 2003) are used to show the multiuse of certain language units or features for different functions/meanings. Cross-linguistically, such maps show e.g. the different extents of the use of certain grammatical categories for diverse functions. Adopting the idea of semantic mapping for SL-internal purposes, we can say that in SL, the parameter of direction is used for pronouns,⁷²

⁷¹ “[I]t makes no sense to say that there could be an unlimited number of lexical units and that the signer simply selects one of these preexisting units as the most appropriate, given the current location of a particular referent. A grammar is not capable of storing or manipulating an unlimited number of already established lexical units. In addition, there is no way to describe the form of these purported morphemes, and no way to list them as part of the grammar because their number is, in fact, indeterminate.” (Liddell 1995, 25)

⁷² Sloan (2013) argues that direction in nominal constructions demonstrating may sometimes be better described as fulfilling a determiner function than a pronoun. This would add a third “map area”, namely “determiner”, for being coded by direction.

as well as for agreement verbs, respectively. The example shows that typologically, we should not look what makes SpL and SL pronouns “different” – Liddell uses the difference, better, the deviation of SL pronouns from SpL ones as an argument that SL pronouns are “gestural” – but instead, which coding elements fulfil which functions and how commonalities and differences can be best described by using a cross-classifying method with a representation by semantic maps.

The Gesture School sees an important difference between the pronouns in SL and SpL in that the latter do not contain any element which identifies their referents directly in terms of direction. This is a clear example for a SpL bias which takes the SpL “standards” as the “real and only” version, and any deviation from that as non-linguistic. Additionally, the superficial similarity of the SL INDEX with the showing gesture of SpL is taken as the proof for the gestural status of INDEX.

Visual deictic elements which take functions like pronouns, articles, demonstratives, or local adverbs are – following the method described above – interpreted as “gradient”. This strategy pretends that the parameters of direction/orientation do not decisively contribute to the meaning of deictic or locational signs in discourse. This can be proven even by looking at SpL practice: Either signs such as “this” or “here” show an anaphoric relation within the discourse (case 1) or – as in using them related to a spatial information in an actual situation – they can be concretised either by a detailed SpL-description (“left of the tree in front of the house”; case 2a) or by a visual sign like pointing (case 2b) – in most cases the expectable economic way; both add necessary information. We see three different coding strategies in SpL: the first and second work within the spoken context only, the third one uses a visual sign, referring to three-dimensional space or to a cognitive model of it. As being non-acoustic, this visual sign is traditionally labelled as “non-linguistic”, or “gestural” in SpL linguistics.⁷³ This questionable labelling (cf. 3.2.3) is then transposed to SL, solely based on the superficial “similarity” between the “pointing gesture” used in SpL and the INDEX in SL, ignoring the different functional context: Compared to SpL, SL show a unique strategy: All three described cases are coded by visual signs. The crucial point here is that indexical signs like INDEX are used for case 1 and 2b as well. Together with coarticulatory variation of handshape in the sign INDEX, this proves that the “pointing gesture” of SpL has a grammaticalised counterpart in SL which is also used for discourse-internal anaphora, without any relation to the physical environment.⁷⁴

For both SpL and SL, observation adequacy is violated when one tries to deduce the meaning of deictic or iconic signs from their lowest common denominator, i.e. those

⁷³ McNeill (2000, 6f) describes “pointing” in SpL-contexts as “integral part of linguistic performance” which are “outside the normal resources of language”, however. He states that pointing underlies less restrictions than emblems like “ok”. This is only correct if we ignore the function of the direction parameter.

⁷⁴ This does not mean that I refuse an evolutionary process of ‘showing gesture > deictic particles > articles/demonstratives/pronouns’ for SpL (cf. Diessel 2012, 37). A comparable development, starting with the showing gesture and leading to grammaticalised use of indexical elements in different functions is also probable.

properties which all of a set of realisations of a sign share. By this method, non-common parts of the sign's meaning are excluded from functional analysis. As deictic or iconic signs mentioned in 3.2.3 are directly related to physical directions or visual qualities of objects, the respective coding parameters are produced with respect to these "real" relations/qualities and therefore vary along these dimensions. E. g. the "type" INDEX includes "tokens" which differ in this respect.

Reversely, it makes no sense to try to understand the complete meaning of a single token excluded from its actual context; it is inherent to this class of signs that their understanding needs reference to the actual situation.⁷⁵ The contribution of the respective directional or quality parameter is crucial for understanding and can only be detected within its context. These signs are not symbolic as Liddell presupposes,⁷⁶ but indexical/iconic. These types of signs are constituted by setting a relationship to reality (cf. Croft 2013 on the discussion with Haspelmath concerning "indexation"). Therefore, visual deictic/iconic signs represent a special set: they consist of fixed and situation-dependent parts. Hence, the strategy of abstracting one form out of a set of forms which we perform for symbols is not adequate here.

I assume that all researchers would agree that e.g. the direction of movement in elements which are commonly said to be lexical signs of SL is only invariant if we evaluate it in relation to the spatial position of the signer. If we were to take a fixed, mathematically determined coordinate system, e.g. by the use of cardinal directions, even the directions of these signs would be gradient in the sense Liddell understands the term. To take the relative position of the signer in space as the only criterion for the evaluation of a stable direction of movement is a too strong reduction of criteria for the production of sign language elements, however. Its result is that only the first-person index is found to have a stable direction (relative to the chest of the signer; cf. e.g. Lillo-Martin and Meier 2011). The misunderstanding proceeds to the result that we can differentiate only between the index for first and non-first person. If we abandon the restriction to the spatial position of the signer as the only criterion and add the spatial position of other persons and objects as a criterion of equal importance, we arrive at a solution which is much more adequate for the users' productions of indexes: The direction of every index is then determined by an obligatory relation to the person or object referred to. Even the use for non-present persons and abstract referents can be described by this model. This is an argument in favour of a unique grammatical rule.

Would these signs be "gradient", as Liddell proposes, it would be impossible to interpret any single token correctly. Signs with an undetermined directional or quality parameter could not be used in communication in the function they fulfil, because set-

⁷⁵ SpL pronouns only coding gender and/or number of their referents can also only be understood (i.e. the addressee can identify the correct referent) in the actual context.

⁷⁶ Liddell contrasts "symbolic" with "non-symbolic", implying that only symbolic codings could be elements of language.

ting the directional or quality parameter(s) arbitrarily would not allow the intended identification of an object or quality. With regard to the special function of these signs, relating us directly to “reality”, their reality-dependent parameters are constitutive for these signs and cannot be ignored in linguistic theory. Liddell (1995, 25) misinterprets the indexical sign parts as a “single morpheme whose form was indeterminate”, arguing as follows:

The concept of a lexically fixed, meaningful element with indeterminate form is inconsistent with our conception of what morphemes are. Although it is true that reduplicative morphemes have no identifiable phonological form by themselves, they nevertheless behave in fixed ways that makes words formed by them identifiable. (Liddell 1995, 25)

Thus, he accepts the indeterminacy of reduplicated morphemes if one can formulate rules for their actual formation. This condition is also fulfilled for the visual deictic signs in SL. The rule for their formation is this: ‘The position of an object in space is coded by the production of values of the parameter(s) ‘direction’ and/or ‘orientation’ which are sufficiently discriminating it from others.’⁷⁷ For iconic signs the rule is the following: ‘The relation to an object is coded by the production of iconic parameters which allow the identification of the object in the actual context.’

Similar to the discussion about INDEX, Liddell (2003) claims that agreement verbs could not be analysed regarding their morphemic components; the evaluation “agreement” could not be proven.⁷⁸ Instead, he calls these verbs “indicating verbs” because they are directed toward referents (physically present or conceptualised as present), thereby identifying them. This view can be disproved by the same argumentation as the one on INDEX above.

In summary, the linguistic examination shows that the parameters of direction and orientation in question are neither in- or underdetermined nor gradient, related to the intention of the signers.⁷⁹ Instead, they are rule-governed, and their gradience emerges only from general conditions of production. Signers who do not keep to these obligatory rules risk to be misunderstood. Moreover, texts which do not fulfil these rules are evaluated as ungrammatical by native signers; this proves that the rules belong to SL grammar.

⁷⁷ Liddell (2000, 344) denies the possibility of such rules of language: “[D]irecting signs toward things in Real Space is not dependent on any linguistic features.”

⁷⁸ Concerning the different solutions for agreement verbs cf. Mathur and Rathmann (2012), who themselves propose some compromise, using features.

⁷⁹ Especially parameters like “direction of movement”, “direction of gaze”, “orientation of the body” and “relative position in space” are used to code relevant information within indexical and iconic signs; they are equally “linguistic” as other parameters used for lexical elements of SL.

3.2.2 The Listability Criterion

As Liddell puts it:

Since treating depicting verbs as listable lexical items was not considered possible, ways were sought to provide a productive means of accounting for all possible signs of this type. (Liddell 2003, 269)

The source for this misunderstanding is again the above-mentioned tacit assumption that the coding phenomena of acoustically and mainly linear-sequentially ordered SpL have to be identical with those in visually and three-dimensional sequential-simultaneously ordered SL: SpL do not provide an immediate orientation in space. SpL users have to resort to acoustic indexical (“there”) or symbolic lexical/morphological (“middle”) and even visual (“gestural”) means. The simultaneous coding of different meanings is only possible via morphological fusion or intonation. In contrast, SL use spatial parameters directly for coding; therefore, the users can immediately integrate orientation in space into their texts. A grammar of a spatially coded language ignoring the actual or reported spatial configuration of an event is contra-intuitive. Additionally, three-dimensional coding allows for a much more simultaneous ordering of signs.

There is a second source of the inadequate application of the listability criterion: Language elements are either listable or their use is describable by a rule. No linguist would state that all language elements which are used in accordance to a phonological, morphological, or syntactic rule have to be listed in order to be evaluated as linguistic. In contrast, it is characteristic for many morphemes – namely those still productive in a language – that the lexemes to which they can be added are not listable. The reasons are that new lexemes can be added to an existing class, that lexemes can change their class or can show different class membership dependent on contextual conditions. This is also valid for SL; the difference is only that SL users prefer visual morphological categories.

The description of “non-listable” is therefore an indicator of a productive rule or process within a language. E.g. there is no list of SpL lexemes to which a certain SpL classifier can be applied and no list for the metaphorical use of a certain concept (nobody can forecast for which objects the notion of “head” will be used as a metaphorical sign).

It is also characteristic for numerals that they are non-listable because the natural numbers are already countably infinite, while real numbers are non-denumerable. Therefore, numerals can only be described by rules.

3.2.3 The Criterion “One Form – One Meaning”

Contini-Morava (1995, 8) describes the principle “one form – one meaning” as a “reasonable initial working hypothesis” which allows us to start the analysis of languages (cf. also Cappellaro 2012, De Cuyper 2008, 95–102, Hirtle 1989). The principle somehow reflects stages in ontogenesis where its application by children allows them an easy and economic learning of words and forms (cf. Aguirre 2003, 20). However, the phenomena

of homonymy and polysemy are there in every language, even in the lexicon. Additionally, many lexemes show a variability of meaning, depending on context (cf. Wilbur 2013, 225–228 on colours or adjectives like “expensive” related to different contextual standards of comparison and adverbs like “very”). Looking for translation equivalents shows us that also lexemes of a certain language have a wide spectrum of meaning which can only be described from their usage.⁸⁰

This situation is best described by the assumptions of a prototypical organisation of the lexicon and of specification of meaning within the actual context. Concerning morphology, the situation is much more complicated, and the principle does not hold everywhere: As morphemes are limited in size and structure, we find multi-used forms as morphemes with different meanings, especially in languages with a more reduced but still productive morphology: Take e.g. the morphemes “-e” and “-en” in German which serve for coding plural or cases like dative and accusative of nouns as well as for special personal forms of verbs. The same is valid for English “-s”.

Typologically, we have to cross-classify morphological forms as well as categories identified and their respective functions for every language: We have to ask how many different forms in a certain language can signal accusative meaning and which of these forms also have other functions, e.g. signalling plural nominative. Then we also get a list of functions of one single morpheme. Additionally, we have to ask which functions the accusative forms of a certain language have, compared to the functions of an accusative in another language.

In typology, we are looking for the identity of functions or coding strategies, not for the identity of coding forms. We know that cross-linguistically there are overlappings or splits of functions as well as coding strategies. Therefore, we cannot assume any uniformity concerning a certain function or coding strategy. This situation is nicely illustrated by the use of direction in SL: Not only does it serve for the locating and re-referencing of persons, but also for expressing agreement.

Liddell (2003, 262–268) states that it is impossible to assign a certain meaning to certain handshapes, directions of movements, or orientations of the hand. Therefore, these parameters should be evaluated as gradient. If we assume that certain values of these parameters are only formational components of lexemes lacking iconic properties, this statement is nonsense: Were these components unidentifiable because of their gradience, the lexemes would be instable and useless for communication. If we assume that single fixed values of parameters are morphemes, we find the same situation in SL as in SpL: There are forms which are multi-used for different morphemes in different contexts. The only difference is that there are much more possibilities in SL, due to their visual modality. Any typological morphological analysis, therefore, has to use a cross-classification of forms and meanings.

⁸⁰ It seems that the listing of lexemes together with their meanings in dictionaries produces the impression of “one form – one meaning” or at least of “clearly definable meanings” of a lexeme.

The functional explanation of classifier constructions in SL is the following: For full nominal lexemes, all main parameters are used to code a single item. For anaphoric use, the full representation of lexemes has to be reduced, as is the case in all languages and for different classes, like proforms or agreement morphemes. The differences are that e.g. in verb phrases of SpL the reduced item is sequentially added to the verb lexeme while SL users apply a more or less simultaneous combination. And SpL mostly use grammatical properties of the referent (e.g. gender, number) while SL use visual properties (e.g. roundness, which are also used in spoken classifier languages).

No SpL linguist asks for a list of possible referents for a certain proform, agreement morpheme, or classifier because the actual referent is identifiable from the context, in case that the grammatical rule was appropriately applied. SL classifiers as reduced visual forms are in complete accord with this description. As mentioned above, they show gradience only with respect to human production processes; otherwise their referents could not be identified by addressees.

The main problem of evaluating classifiers as “gestural” is that their linguistic analysis is abandoned: “[T]he question as to how these signs can be segmented is in my opinion more a matter of how iconic resemblances in language can be described than a matter of morpheme character.” (Erlenkamp 2009, § 14)⁸¹

In contrast, the “French method” (cf. Cuxac and Sallandre 2007), first to describe visually detailed codings informally as “Highly Iconic Structures” and to try a detailed morphosyntactic analysis, creates the possibility of a later typological decision about the status of the single identified elements and is therefore more adequate.

3.2.4 The Similarity Criterion

Superficial similarity between SpL gesture and the SL INDEX lead to the assumption that the latter is a combination of linguistic and non-linguistic elements. This ignores that “gesture” is only defined within a SpL context. Though not explicitly introduced by Liddell, the similarity e.g. between the showing gesture and the Index in SL seems always to have been one source for the evaluation of the latter as “gestural”. Following Wilbur (2013, 237), the application of this criterion violates the principle that we have to differentiate “between encoding (what you see) and entailment (what you must conclude)”.⁸² This principle of differentiation is valid within any language alone, for the comparison of languages, as well as for the comparison of SL and gesture.

⁸¹ It seems that Erlenkamp – like Liddell – constructs a contrast between “iconic” and “morpheme status” or, alternatively, that segmentable and identifiable iconic elements are less probable to have morpheme status than symbolic ones.

⁸² “I suggest that if we take the status of pointing in deictic use in English co-speech gesture as relevant to the treatment of pointing in sign language, we fall victim to the “same form entails same meaning” fallacy.” (Wilbur 2013, 238)

In favour of the difference between the two areas, Wilbur (2013, 238–241) refers to the arguments from SL ontogeny (grammatical pointing in SL takes more time to learn) as well as from grammatically determined cases of reference omission in coordinated sentences.

4 Conclusions

As mentioned above, 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”. As we can see already from Langacker (2008), this is at least an implicit assumption in Cognitive Linguistics. Liddell has done a lot for such a view, especially in the last chapter of his book (Liddell 2003). Unfortunately, his SL model does not show this view.

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.

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Multiple Modality in the Lallans Territory: Current Vernacular (Un)acceptability of the Syntax of Modal Combinations in South-Eastern Scotland

Anthony R. Bour*

Abstract

This paper has the purpose to provide a greater understanding of the current use of the syntax of Multiple Modals (MMs) also known as Modal Combinations in the Southern part of Scotland. A series of 8 clauses, each containing one particular combination, is proposed in order to determine the acceptability of these combinations or their potential replacement with alternative constructions. The type of sentence written, the current dialectal knowledge of the respondents, and their grammatical preferences will shed the first light on the level of stability of these vernacular constructions on the ancestral territory of MMs in which only very few field surveys have been conducted to date.

Key words: combinations, modals, syntax, semantics, Scottish English, dialects

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1 Introduction

Multiple Modality is not a new dialectal phenomenon in the Western part of the English-speaking world. The number of combinations created via the assembling of different modal expressions (Quirk 1985) remain quite important. Dialectal properties of Multiple Modals (MMs) have regularly been considered as a problem for prescriptive linguists such as Chomsky:

The English double modal auxiliaries such as *might could* pose significant problems for most formal syntactic theories, from Chomskyan generative varieties (e.g., Government-Binding theory) to phrase-structure grammars (e.g., Generalized Phrase Structure Grammar). [...] In the Generalized Phrase Structure Grammar approach, the English modals are heads of a V projection [...] In both theories, then, modal combinations are essentially ruled out. (Nagle 1995, 207)

This dialectal phenomenon does not have its place in all of the Standard English varieties in which only one modal represents the head of the clause. Diachronically speaking, combinations of modals already existed in Old English and Middle English. The difference resides in the grammatical identities of these combinations designated as double-verbs or pre-modal entities. It resulted in divergences in the historical analysis of Double Modals (DMs) and Triple Modals (TMs), especially with the Visser/Nagle opposition. Visser (1963-1973) claims that these early verbal combinations represent the original roots of present-day MMs before the modals we know became auxiliaries at the end of the 15th and early 16th centuries.

Visser claims that modal combinations were frequent in Middle English, and indeed at least *shall may* was. Thus, one might look for a gradual development of the current double modals from combinations of verbs before reanalysis to combinations of auxiliaries afterward. (Nagle 1989, 365)

Nagle prefers creating two unrelated developments of modal combinations, MMs as verbal combinations belonging to former varieties of Old and Middle English and MMs as auxiliary combinations that first appeared in the 18th century in Southern Scotland:

The historical home of the current double modals would appear to be in Scotland and Scots English. (Nagle 1995, 209)

These latter combinations continue to undergo syntactic and semantic modifications with the arrival of Scotsmen and women in the American South from 1718 onwards. What is more, the earliest attestations of Scottish modal combinations, *will can* and

may can, were discovered in Scottish texts drafted by Calderwood and Alexander Ross in 1756 and 1768 respectively:

- (a) If we get a German doctor, not one of us *will can* speak to him. (1756)
- (b) The youth himself *may can* to rule the roost. (1768)

However, Old English structures like *moste* or *moston agan*, (*must ought* in Scottish English) and *sceal agan*, *sceall cunnan* (*should ought* and *should can* in Scottish English dialects of the Lowland area) (Nagle 1989, 366) were detected in previous writings of the Early Middle Ages. Despite their grammatical differences, the morphological resemblance of these former and modern modal combinations cannot, for the time being, confirm a complete historical disconnection. More research in diachronic linguistics as regards this dialectal phenomenon in connection with the history of English modals needs to be pursued in order to get clearer answers on this matter.

The theories that have emerged since the 1970s (Butters 1973) have regularly underestimated the complexity of these vernacular constructions by mainly focusing on a limited series of modal combinations composed of two modals and termed Double Modals (DMs). The first modal takes the epistemic meaning while the second one takes the root meaning:

Might could, might can, might would, might should, will can, would can, should can.

This short list is just the tip of the iceberg. The reality of this dialectal system presents many more combinatorial possibilities, syntactic and semantic orderings, and spelling variants which are less spoken and written by Anglophone natives than those listed above. The combination written in bold nicknamed the “queen of combinations” (De-La-Cruz 1995, 82) is used in every Anglophone location where multiple Modality is present. Nevertheless, the usage of most of these other structures is still far from disappearing. They are simply used in more local areas. Amazing lists of combinations were diagnosed by Montgomery (1994), Di-Paolo (1989), De-La Cruz (1995), Battistella (1995) and Nagle (1994, 1997) Furthermore, most of the studies remained focus on the Southern United States, where there is a majority of Americans of Scotch-Irish origin. They brought these constructions with them when they arrived in the New World between 1718 and 1775 (Montgomery and Mishoe 1994, 19).

Two independent developments of Multiple Modality have been existing since this period. The grammatical-syntactic rules in the positions, types, and meanings of modals are not the same any more in both countries. Only a minority of researchers, such as Brown (1991), Miller and Brown (1982), Millar and Brown (1980) and Nagle (1989, 1994, 1995, 1997) have tried to give a first glimpse of the syntactic and semantic understanding of DMs and TMs in the place where they originated, i.e. Southern Scotland. Although they brought very interesting data from this first research as regards the current use of these combinations in Hawick and the Lothians, no further studies were

carried out in the following years. The latest field survey took place in 1989 by Keith Brown in Hawick. Twenty years later, I wanted to carry out a new one-month field survey in the region where everything started, i.e. the Scottish Borders.

2 Field Survey

From April 18th to May 23rd, 2011, I conducted a dialectal study in four towns of the Scottish Borders region. Below are indicated the names of the four towns as well as the counties to which they belong:

Kelso, Jedburgh and Melrose: county of Roxburghshire

Coldstream: county of Berwickshire

In total, 73 structured-type questionnaires were distributed over the period of 5 weeks, 46 of which were completed by women and 27 by men. Also concerning the age group, 27 of 46 women were aged between 40 and 60 years, whereas for men, 21 of 27 who accepted to answer the questionnaire were aged between 30 and 70 years. Several of these respondents did not come from Scotland but already knew these constructions before working and living in the Scottish Borders, since this dialectal phenomenon is also spoken in Cumberland and Northumberland, two counties located in Northern England.

As mentioned above, this questionnaire was created based on a structured approach. This approach allows for the preparation of questions that are termed in the jargon of social sciences as closed and semi-closed questions. This methodology is especially recommended by the French sociolinguists Calvet and Dumont (1999):

La plupart des chercheurs préfèrent élaborer un questionnaire structuré comprenant à la fois des questions fermées et semi fermées, plutôt qu'un questionnaire composé uniquement de questions ouvertes. (Calvet et Dumont 1999, 18)

Most researchers prefer preparing a structured questionnaire comprising both closed and semi-closed questions, rather than a questionnaire only made up of open questions. (Calvet and Dumont 1999, 18) (English translation by the author Anthony R. Bour)

A closed question consists of the informant simply answering *yes* or *no* to a series of two written questions. This represents the first task of the questionnaire:

| | | | |
|---|---|---|---|
| 1 | Have you ever heard the type of structure underlined below? He'll <u>can</u> help us the morn. | Y | N |
| 2 | Would you use it yourselves in a similar context? | Y | N |

If the respondents answer *no* to the second question, they have to replace it with a grammatical construction that can be similar but not necessarily equal to the combination that, according to him/her, would fit better with the clause.

In semi-closed questions, the respondents have to select one grammatical feature among four proposed options. This represents the second task of the questionnaire

| |
|---------------------------------|
| I didn't _____ tak them at aa. |
| A/ uisst tae could |
| B/ used to would |
| C/ use tae could |
| D/ used to could |
| E/ another similar construction |

This paper will focus on the first task in which respondents have the possibility to replace the modal combination proposed in the clause by another construction of his/her choice. It can be either another vernacular construction different or not from an MM or a Standard English construction. By proposing this introductory task, the purpose of this study is also to analyse the progression of the standard or other vernacular constructions different from MMs in a typical Southern Scottish territory in which the Scots language and Scottish-English dialects are still alive. The eight sentences that are proposed contain combinations that some Scottish-(English) respondents may never use, but it does not necessarily mean that their knowledge and use of Multiple Modality is limited. This dialectal phenomenon is so complex and rich that grammatical preferences in the syntax of MMs must automatically be taken into account in such dialectal studies. Here are the eight sentences:

- (1) I know I *might could and should* enjoy myself.
- (2) He *willnae can* come.
- (3) He'll *can* help us the morn.
- (4) I was afraid you *might couldn't* find this address.
- (5) A good machine clipper *would could* do it in half a day.
- (6) I think that we *should have ought've* done that yesterday.
- (7) He *wouldn't could've* worked, even if you had asked him.
- (8) He *should can* go tomorrow.

I will start by showing two tables summarising the initial reactions of the respondents. The first table contains a not insignificant number of respondents who maintained that they know and would use the DMs in most of the eight sentences. The second table will show the contrary. It is quite striking because you find two radical sides in these four towns, i.e. people who recognise and use most of the combinations proposed in this first task and the exact opposite, privileging the standard in which only one modal auxiliary is allowed in the English clause. Intermediate behaviours are rare.

| 2011 | Have you ever heard this kind of structure? | | Would you use it yourselves in a similar context? | |
|------------------------|--|----|--|----|
| | M | W | M | W |
| might could and should | 8 | 23 | 6 | 18 |
| willnae can | 13 | 36 | 7 | 14 |
| 'll can | 12 | 29 | 7 | 19 |
| might couldn't | 6 | 14 | 3 | 6 |
| would could | 5 | 19 | 3 | 9 |
| should have ought've | 12 | 17 | 7 | 9 |
| wouldn't could've | 10 | 20 | 6 | 14 |
| should can | 11 | 25 | 8 | 17 |

Table A: Informants who answered both questions positively

Table A above shows the number of respondents who actually use these DMs in day-to-day conversations as well as those who have asserted to have heard these kinds of constructions among their friends, family members, or co-workers. Similar to Hawick, *willnae can*, *'ll can* as well as *should can* remain the most recognisable combinations in Kelso and Jedburgh, especially among female speakers. *Might could and should* is also heard and used orally quite often among the female respondents, while men seem to be less familiar with these constructions. The other DMs of the table are only used from time to time and are not recognisable from most speakers. It is necessary to recall that since Kelso and Jedburgh are defined as less local towns, i.e. adopting more Standard Scottish English features than Hawick, the number of people, especially male

| 2011 | Have you ever heard this kind of structure? | |
|------------------------|---|----|
| | M | W |
| might could and should | 18 | 20 |
| willnae can | 13 | 6 |
| 'll can | 14 | 13 |
| might couldn't | 20 | 28 |
| would could | 21 | 22 |
| should have ought've | 14 | 25 |
| wouldn't could've | 16 | 21 |
| should can | 15 | 18 |

Table B: Informants who answered the first question negatively

respondents, who responded negatively to both questions remains higher than expected, as table B shows. Nonetheless, a certain number of vernacular constructions is still maintained and continues to change morphologically, orthographically, and semantically speaking. The following sections of this paper will present the diverse standard and vernacular structures proposed by the respondents, replacing the MMs indicated in the eight sentences. The brackets after each sentence represent the number of respondents who proposed their alternative to the MM combination. When there is no bracket, the structure of replacement was proposed just once.

3 Structures of replacement

| Standard structures | Vernacular structures |
|---|-------------------------------------|
| I know I <i>should</i> enjoy myself (14) | |
| I know I <i>could and should</i> enjoy myself (3) | I know I <i>could but I wouldne</i> |
| I know I <i>might</i> enjoy myself (3) | |
| I know I <i>may</i> enjoy myself (2) | |
| I know I <i>might and should</i> enjoy myself (2) | |
| I know I <i>will</i> enjoy myself (2) | |
| I know I <i>might, could and should</i> enjoy myself | |
| I know <i>that I could, and should</i> , enjoy myself | |
| I know I <i>do</i> enjoy myself | |
| I know I <i>could</i> enjoy myself | |
| I know I <i>could, and ought to</i> , enjoy myself | |
| I know I <i>will</i> enjoy myself | |
| I know <i>it will be good fun</i> | |
| I <i>could but should I</i> | |
| I know I <i>probably should</i> enjoy myself | |
| I know I <i>should</i> enjoy it | |
| I know I <i>would and should</i> enjoy myself | |
| I know I <i>can</i> enjoy myself | |
| I know I <i>do</i> enjoy myself and life | |
| I know I <i>might conceivably</i> enjoy myself | |
| <i>I will go, but, might not enjoy it! Probably I would though!</i> | |

Table 1: I know I *might could and should* enjoy myself.

The dominant presence of standard constructions proposed by the informants is relatively recognisable in this first table. There is one exception in which one man added a non-standard Scottish negator *ne*, i.e. *not* in Standard English. A great number of standard structures were proposed, especially those which contain the Central Modals (Quirk 1985, 137) *could*, *should* and *might*. *Should* is the most appropriate modal that was kept in the syntax by Scottish Borders' respondents. *Should* was maintained by five women and nine men. Other respondents wanted to separate the modals of the combination by the conjunction of coordination *and*, which looks as follows:

Might and should *would and should* *could and should*.

Again, we find *should* in this situation always positioned after the conjunction. The other conjunction, *but*, was also proposed by some respondents, therefore separating the two modals of the combination as well. It is difficult to determine at this point if

they still identify these structures as MMs. Is it even mainstream for them? More enquiries of this kind need to be carried out to obtain further clarification in this regard.

| Standard structures | Vernacular structures |
|-------------------------------------|-----------------------------------|
| | He <i>willnae</i> come (4) |
| He <i>won't</i> come (12) | He <i>canna</i> come (4) |
| He <i>won't be able to</i> come (8) | He <i>winnae</i> can come |
| He <i>will not</i> come (6) | He'll <i>not can</i> come |
| He <i>can't</i> come (3) | He <i>will not can</i> come |
| He <i>cannot</i> come (2) | He'll <i>no</i> be able to attend |
| He'll <i>not</i> come | He <i>winna</i> come |
| He <i>will not be able to</i> come | He <i>will no</i> be able to come |
| He <i>wouldn't</i> come | He <i>wouldne</i> come |
| He <i>will</i> come | |
| He <i>won't be</i> there | |
| He <i>is unable to</i> come | |

Table 2: He *willnae can* come.

Unlike the first table, it is very interesting to notice the astonishing diversity of vernacular structures of replacement proposed by Scottish-English respondents as regards the DM *willnae can*. In total, ten different dialectal structures were written. At the outset of the table, one woman contracted *will*, followed by the standard negation *not* instead: *ll not can*.

Two other women had the same attitude and preferred keeping the DM with slightly different modifications. One proposed *winnae can* which implies a change in the spelling of *will* due to its attachment with the Central Scots negator *nae*. Here we can see a spelling and a morphology quite different from the mainstream construction *will not*. Susan Rennie and Matthew Fitt (1999) draw up a great number of spelling variants in regard to the negation with modals in Scots vernacular dialects:

Instead o *willna* (or *willnae*), or *wullna* (or *wullnae*), ye'll sometimes get *winna* (or *winnae*) or *wunna* (or *wunnae*). (Rennie 1999, 10)

On the contrary, the other woman proposed a more standard spelling variant by writing *will not can*. Separating the negator from the first modal generates an alternative meaning in the sentence. From he *winnae can* come (he won't be able to come) to he *will not can* come (he will be able not to come).

In the first paraphrase we are dealing with an impossible task to realise in the future whereas in the second paraphrase, the person has the possibility to choose to come or not. In Multiple Modality theories, the position of the negator in a DM or TM is very important because it regularly determines the meaning of the entire sentence.

Also, it depends on the morphosyntactic and semantic behaviour of the respondent. In these two variants, it may be considered as one single semantic interpretation for both women. Their level of knowledge of this dialectal phenomenon must also be taken into account in such studies.

Most of the time, people tend to preserve *will* or one of its spelling variants over *can*. Concerning male speakers, six of them chose to write a vernacular structure of replacement. To create this, they deleted *can* but not *will*, which gives interesting writings, such as “*winna* come” and “*willnae* come”. *Na* is a more traditional Southern Scots negator while *nae* is identified as a modern vernacular Central Scots negator. *Wudne* is the translation of *wouldn’t* in Standard English and one man in particular included a Semi Modal or, in Quirk’s (1985, 13) terminology a “Semi Auxiliary”, which is *be able to* after the vernacular negative *no*. *Can* was replaced by this modal expression. “*Will-nae* come” is common to both genders when they use different varieties of Scots. This assembling of *will* + *nae* has regularly been observed in previous studies on vernacular modality in the Lowland Scots area, even in the survey conducted about the Multiple Modality system in the traditional Hawick Scots vernacular (Bour 2010).

Although the number is slightly reduced, there are still more respondents, especially women, who proposed to write modal structures applying the normative rules of the English language. 24 women and 13 men indicated standard modals in the questionnaire. *Won’t* was the most written modal by seven women and five men. Seven other women also preferred to associate *won’t* with the semi modal *be able to*, which was not the case for men. As regards both genders, there were very few who wrote “he *can’t* come” and “he *cannot* come”, a result that is different to the Hawick study (Bour 2010). Furthermore, the DM *won’t can* was not proposed in the 2011 study, unlike in the Hawick 2010 study. It shows that tendencies in the use of standard and non-standard modal structures are never the same from place to place, even when they are close together, and that each local and regional town keeps its own habits in terms of dialectal heritage. However, some of these habits are undergoing modifications as time goes on.

| Standard structures | Vernacular structures |
|--|--|
| He <i>can</i> help us the morn (9) | He'll <i>can</i> help tomorrow He'll <i>can</i> help us tomorrow He <i>will can</i> help us the morn |
| He <i>will</i> help us the morn (4) | |
| He <i>can</i> help us in the morning (4) | |
| He <i>can</i> help us tomorrow (2) | |
| He <i>will</i> help us tomorrow (2) | |
| He'll help us tomorrow (2) | |
| He <i>will</i> help us in the morning (2) | |
| He'll <i>be able to</i> help us the morn (2) | |
| He <i>can</i> help us this morning | |
| He <i>will be able to</i> help us | |
| He <i>will</i> come tomorrow | |
| <i>Hopefully he will</i> help us | |
| He <i>can</i> help tomorrow | |
| He <i>will be able to</i> help us the morn | |
| He'll <i>be able to</i> help us tomorrow | |
| He <i>will</i> help us tomorrow | |
| He'll help us in the morn | |
| He'll help us tomorrow morning | |
| He <i>could</i> help us the morn | |

Table 3: He'll *can* help us the morn.

Table 3 shows the same DM without the negation and a contraction of the first modal. With these modifications, it can already be noticed that most respondents replaced the DM with standard constructions. Unlike the previous table, there are only three vernacular propositions, all written by women. The presence of the Scottish negator in the second sentence inserted between both modals can generate some more Scots interpretations from a greater part of the respondents. For the moment, however, this remains a hypothesis that still needs to be proven.

In the selected standard clauses, most female informants chose *will* instead of *can* which, like in the second table, shows that the epistemic sense of futurity is more important for these respondents than the root sense of ability expressed by *can*. Four of them also added *be able to* with *will*. Eight male respondents reacted differently by giving priority to the Central Modal *can* instead of *will*. Seven of them selected *will* and only one proposed *could*. There are two grammatical analyses for *could* in this clause:

Either the past tense prevails and the clause means that the person will not be able to help them:

(3a) He could help us the morn but asserted that he does not (or will not) have time.

Or the conditional is dominant and, thus, there is the probability that he may help us or not:

(3b) He could help us the morn. I am going to ask him.

The next clause contains the most common DM spoken and written in the English-speaking world, the so-called ‘queen of combinations’, *might could*, in the negative.

| Standard structures | Vernacular structures |
|---|---|
| I was afraid you <i>might not</i> find the address (9) | I was afraid you <i>might couldnae</i> find the address (2) |
| I was afraid you <i>couldn't</i> find the address (8) | I was afraid you <i>couldnae</i> find the address (2) |
| I was afraid you <i>wouldn't</i> find the address (5) | I was afraid you <i>could nae</i> find the address |
| I was afraid you <i>might not be able</i> to find the address (4) | I was afraid you <i>maybe no be able</i> to find ... |
| I was afraid you <i>wouldn't be able to</i> find the address (4) | I was afraid you <i>might not can</i> find the address |
| I was afraid you <i>may not</i> find the address (3) | I was afraid you <i>wouldnea</i> find the address |
| I was afraid you <i>would not be able to</i> find the address (3) | |
| I was afraid you <i>mightn't</i> find the address (2) | |
| I was afraid you <i>maybe couldn't</i> find the address (2) | |
| I was afraid you <i>would not</i> find the address | |
| I was afraid you <i>won't</i> find the address | |
| I was scared you <i>couldn't</i> find the address | |
| I was afraid you <i>could not</i> find the address | |
| I was afraid you <i>cannot</i> find the address | |
| I was afraid you <i>might</i> find the address | |
| I was worried you <i>wouldn't</i> find the address | |

Table 4: I was afraid you might couldn't find this address

Most standard constructions of replacement provided by seven female respondents contain a single modal in the negative *might not*. *Couldn't* was the favourite Central Modal that replaced the DM. Female respondents insisted on the epistemic meaning of *might*,

whereas male informants preferred emphasising the impossibility of realization of the action. Two different paraphrases emerge from these meanings:

Female speaker interpretation:

(4a) It might not have been possible for you to find the address, which worried me.

Male speaker interpretation:

(4b) It was impossible for you to find the address, which worried me.

Regarding vernacular interpretations, five women and three men proposed more regional structures. Two women kept the DM by turning the Standard English negator *not* into the Central Scots enclitic negator *nae*. One man kept *not* and put it between *might* and the present of *could*, i.e. *can*.

Coulnae alone was proposed by two women and one man for this clause. Another woman proposed the variant *could nae*, in which the wide scope negator is detached from the Central Modal. Since it is a sentential negator, it should not be detached from its auxiliary, according to the Scottish English negative system (Brown 1991, 80–81). Nevertheless, this syntactic possibility is commonly found in the North-Eastern Scots dialect called Doric. A few examples written in Buchan Doric show this detachment of the sentential negator with primary auxiliaries *be*, *have* and *do*:

- (a) There wis *nae* English-speakers. (McClure 2002, 54)
- (b) They had *nae* parental attitudes til it. (McClure 2002, 60)
- (c) It's *nae's* just *nae* the same ye know. (McClure 2002, 68)
- (d) Dae ye *nae* spik about your beets? (McClure 2002, 76)
- (e) There'll be *nae* discussion. (McClure 2002, 194)
- (f) I'm *nae* mista'en. (McClure 2002, 195)
- (g) You're *nae* gan near me wi' yoghurt! (McClure 2002, 200)

Nae could be replaced by the narrow scope negator *no* in each of the seven sentences above. Without affecting the meaning of the clauses. The situation would, however, be different if *nae* or *no* would be inserted in one or several modal expressions.

This common type of Scots negator is regularly present in Kelso and Jedburgh, which is quite striking because both towns are just a couple of miles from Hawick and are still very different from this local town in terms of dialect. Hawick is still very connected with traditional Broad Scots, containing different negators that, in the 2010 Hawick study, were still detected as being used with this same modal, i.e. *couldny* and *couldni*. Distance between towns of the Scottish Borders does not seem to bring about a homogenisation of all the Southern Scots dialects.

Unlike the others, this fifth table is very short, due to a lack of structures of replacement. Most respondents removed either *would* or *could* in the DM. *Would* is the most favourite Central Modal for both genders in this clause. The Semi Modal *be able to* was again suggested by the respondents to replace the second modal of the combina-

| Standard structures | Vernacular structures |
|---|-----------------------|
| A good machine clipper <i>would</i> do it in half a day (22) | |
| A good machine clipper <i>could</i> do it in half a day (17) | |
| A good machine clipper <i>would be able to</i> do it in half a day (7) | |
| A good machine clipper <i>could</i> do it better | |
| A good machine clipper <i>will</i> do it in half a day | |
| A good machine clipper <i>might be able to</i> do it in half a day | |
| A good machine clipper <i>will be able to</i> do it in half a day | |
| A good machine clipper <i>would have been able to</i> do it in half a day | |
| A good machine clipper <i>would</i> do it better | |

Table 5: A good machine clipper *would could* do it in half a day.

tion. *Would could* is a North-Eastern English DM which might explain the reason why only standard constructions of replacement were proposed, although there have always been deep cultural connections between the Scottish Borders and Northumberland. The present of *would could*, i.e. *will can* remains the typical Scottish-English combination of the Lallans territory that for many European Anglophone speakers of MMs is still irreplaceable.

| Standard structures | Vernacular structures |
|--|---|
| I think that we <i>should have</i> done that yesterday (35) | We <i>shoulda</i> done that (2) |
| I think that we <i>should 've</i> done that yesterday (3) | We <i>ought've</i> done that (2) |
| I think that we <i>shouldn't have</i> done that yesterday (2) | We <i>should have ought'tae</i> done that |
| I think that we <i>should have</i> done it yesterday (2) | We <i>should</i> done that |
| I think that we <i>ought to have</i> done that yesterday (2) | We <i>ought have</i> done that |
| I think that we <i>should not have</i> done that yesterday | |
| I think that perhaps they <i>should have</i> done that yesterday | |

Table 6: I think that we *should have ought've* done that yesterday.

The most standard structure of replacement is the traditional *should have* + *past participle*, mentioned 35 times in the questionnaires. *Ought to have* + *past participle*, which remains a very old-fashioned modal structure with or without the *have*-auxiliary, was only written twice.

As regards vernacular structures, the *to* of *ought to* was deleted, which does not change the meaning of the clause. Furthermore, the *have*-contraction in *'ve* next to *ought* and *a* attached to *should*, were proposed by both genders and the *have*-deletion was proposed by only one female respondent, which implies a past participle located after the modal auxiliary (*should done*). All these grammatical morphemes represent a simplification

or levelling processes that are not colloquial features in modern non-standard Scottish English dialects. Only one female respondent suggested a slight modification in the DM by turning the second *have*, *'ve*, into *'tae*.

The next DM contains the modal *would* accompanied by a contracted negative, followed by *could* with a contracted *have*.

| Standard structures | Vernacular structures |
|--|---|
| He <i>wouldn't have</i> worked, even if you had asked him (21) | |
| He <i>could've</i> worked, even if you had asked him (5) | He <i>wouldnae</i> work, even if you had asked him |
| He <i>would not have</i> worked, even if you had asked him (3) | He <i>couldnae</i> have worked, even if you had asked him |
| He <i>couldn't have</i> worked, even if you had asked him (3) | He <i>couldnae</i> work, even if you had asked him |
| He <i>could not have</i> worked, even if you asked him (3) | |
| He <i>wouldn't have been able to</i> work, even ... (2) | He <i>wouldnea be able tae</i> work, even ... |
| He <i>would've</i> worked, even if you had asked him (2) | He <i>wouldn't</i> worked, even if you had asked him |
| He <i>wouldn't be able to</i> work, even if you had asked him | |
| He <i>was unable to</i> work, even if you had asked him | |
| He <i>couldn't</i> work, even if you had asked him | |
| He <i>wouldn't</i> work, even if you had asked him | |

Table 7: He *wouldn't could've* worked, even if you had asked him.

In this table, most respondents decided to write mainstream structures of replacement. Regarding their grammatical preferences, 18 women and 12 men preferred deleting *could* and keeping *would* with or without the perfect infinitive *have* + *V-ed* and with or without a negative particle. Very few proposed a vernacular interpretation of the clause by replacing *not* by Central Scots negator *nae* or *nea* attached to either modal. The observation made in Hawick (Bour 2010) again shows the differences in the spelling of the negator. For the same clause, a 20-year-old woman from this town proposed a typical Broad Scots version of replacement:

(7a) He *wouldny* of worked even if you asked him.

As said previously, some Scottish dialectal features are spoken and written in limited geographical and administrative areas of the Borders. Such features, like *ny* or *ni*, can already sound very strange for Scotsmen and Scotswomen residing and working nearby the Hawick administrative area. Similar situations can be found for MMs as well, but it will be more interregional rather than between counties of a same region, due mainly to the length and morphological complexity of the combinations.

In this last clause, only one non-standard structure was proposed by one female respondent. The DM of this clause was preserved, whereas the spelling of the main verb and the time marker was slightly changed. *The morn* or *the morrow* are the favourite Scots spellings for *tomorrow* unlike *the morin*. This spelling must belong to a very spe-

| Standard structures | Vernacular structures |
|---|------------------------------------|
| He <i>can</i> go tomorrow (12) | |
| He <i>should</i> go tomorrow (11) | |
| He <i>should be able to</i> go tomorrow (7) | He <i>should can</i> gan the morin |
| He <i>will be able to</i> go tomorrow (3) | |
| He <i>could</i> go tomorrow (2) | |
| He <i>will</i> go tomorrow | |
| He <i>should be able to come</i> tomorrow | |
| He <i>may be able to</i> go tomorrow | |
| He <i>ought to</i> go tomorrow | |
| He'll <i>maybe</i> go tomorrow | |

Table 8: He *should can* go tomorrow.

cific local Scots dialect that does not exceed the South-Eastern part of the Lowlands, unlike the other two alternatives mentioned above. Regarding Standard English constructions, *should*, with or without additional constructions, remains the favourite modal, proposed 19 times by both genders. It is directly followed by *can* written eight times by women and four times by men. Other Central and Marginal Modals (Quirk 1985, 137) are proposed only once, such as *will*, *ought to* and *may*.

4 Conclusion

The discussion of the 2011 questionnaire that was largely used in Kelso and Jedburgh has shown that a greater number of Standard interpretations were proposed by many respondents, especially women, to replace the modal combinations of the eight sentences. Compared to the 2010 Hawick study, it is a clear upsurge of the Standard, although these three towns are close to one another. Long distance is obviously not a determining factor because rapid changes in the respondents’ attitude can be noticed in their use of Multiple Modality in towns located in the same county. Contrary to Hawick, there is generally a lack of participation of male respondents in Kelso and Jedburgh. This has inevitably had an impact on the results obtained, i.e. a greater presence of mainstream structures of replacement over vernacular ones. It is always challenging in questionnaire surveys to reach an equal number of men and women who are ready to complete the study. The behaviour of the respondents when facing such studies keeps varying from town to town. However, a stable maintenance of a minority of MMs in Kelso and Jedburgh is observed. They are still part of the vernacular linguistic culture of the Lowlanders.

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Questionnaire of 2011 (Sociolinguistic Study)

Name: _____
 Forename: _____
 Age: _____
 Gender: M / F
 Employment: _____
 Workplace: _____

I

- 1) I know I might could and should enjoy myself.

After reading the first sentence evoking a context, try to answer the following questions:

- A/ Have you ever heard this kind of underlined structure?
 B/ Would you use it yourselves in a similar context? If yes, would you use it regularly, occasionally or rarely?
 C/ If not, try to replace it by another one which, according to you, would be more suitable in this context. Do the same for the other seven sentences.

A/ _____
 B/ _____
 C/ _____

- 2) He willnae can come.

A/ _____
 B/ _____
 C/ _____

- 3) He'll can help us the morn.

A/ _____
 B/ _____
 C/ _____

- 4) I was afraid you might couldn't find this address.

A/ _____
 B/ _____
 C/ _____

- 5) A good machine clipper would could do it in half a day.

A/ _____

B/ _____

C/ _____

- 6) I think that we should have ought've done that yesterday.

A/ _____

B/ _____

C/ _____

- 7) He wouldn't could've worked, even if you had asked him.

A/ _____

B/ _____

C/ _____

- 8) He should can go tomorrow.

A/ _____

B/ _____

C/ _____

II

Choose only one structure (by circling one letter) that, according to you, would be the best choice in the following clauses.

- 1) He _____ refuse.

A/ might not can

B/ might not could

C/ used to couldn't

D/ might used to couldn't

E/ another similar construction (in this case, write it in the gap. It **must be the same type of grammatical structure** as the first four)

- 2) I thought maybe I better put it (a hearing aid) on or I _____ understand you.
- A/ might not couldn't
 - B/ might couldn't
 - C/ may not could
 - D/ might will can't
 - E/ another similar construction (in this case, write it in the gap)
- 3) He _____ do it for you.
- A/ should might better
 - B/ will might can
 - C/ 'll should could
 - D/ 'll might can
 - E/ another similar construction (in this case, write it in the gap)
- 4) The girls usually make me some toasted sandwiches but they _____ made any today.
- A/ mustn't could've
 - B/ must not could have
 - C/ mustn't could have
 - D/ might not could've
 - E/ another similar construction (in this case, write it in the gap)
- 5) If we _____ get a piece of a car, things would be better.
- A/ might would
 - B/ may could
 - C/ could might
 - D/ might could
 - E/ another similar construction (in this case, write it in the gap)

6) One of our goals _____ be to encourage non-member involvement.

- A/ might oughta should
- B/ might better
- C/ might should oughta
- D/ might ought to
- E/ another similar construction (in this case, write it in the gap)

7) I think I _____ have me a piece of cake.

- A/ may might can
- B/ might could
- C/ should could
- D/ may should ought
- E/ another similar construction (in this case, write it in the gap)

8) You _____ have the oil changed.

- A/ might ought to should
- B/ may should
- C/ ought to should
- D/ should ought to
- E/ another similar construction (in this case, write it in the gap)

III

Add the question tag you wish to write after each underlined dialectal construction.

- 1) I might could do that, _____ ?
- 2) He must wouldn't steal, _____ ?
- 3) He'll can do it, , _____ ?
- 4) He might used to could run the marathon, _____ ?
- 5) You might could see Uranus if you had a telescope, _____ ?

Additional questions concerning these structures

IV

In which other contexts do you use them? (Circle one or several letters)

- A/ In family
- B/ Between friends
- C/ At work
- D/ Alone
- E/ Other suggestions: _____

V

How often do you use (orally) these types of grammatical constructions? (Circle only one letter)

- A/ a lot
- B/ often
- C/ occasionally
- D/ rarely
- E/ not at all

You write these types of constructions: (Circle only one letter)

- A/ a lot
- B/ often
- C/ occasionally
- D/ rarely
- E/ not at all

You write these structures: (Circle only one letter)

- A/ When taking notes during meetings or conferences
- B/ When leaving a note for a friend
- C/ When writing a report
- D/ When writing an e-mail to someone
- E/ When doing something else (What would it be?): _____

VI To conclude

Put each of the underlined dialectal constructions in the negative & in the interrogative.

- 1) I may can get it out tomorrow.

NEG: _____

INT: _____

- 2) He'll should can come the morn.

NEG: _____

INT: _____

- 3) You should ought to make the rules clear.

NEG: _____

INT: _____

- 4) He might can tell you.

NEG: _____

INT: _____

- 5) The children used to would kind of stay in the background, you know.

NEG: _____

INT: _____

Thank you for your cooperation!

„Und wenn's geht, schau, dass es episch aussieht“

Epische Strukturen im Fantasy Live-Rollenspiel

Sophia Mehrbrey*

Abstract

Live-action-role-play, short LARP, is an increasingly widespread hobby in Germany. The aim is to slip into different roles together with other participants in order to play and present a particular story. Even if the participants' personal immersion is in the foreground, it cannot be denied that most of them also attach importance to the reception of their game by other participants. Therefore, an aesthetic component of the game is indisputable. While the most obvious comparison here is with dramatic play, this article aims to examine the structural and aesthetic similarities between the medieval epic and the LARP.

Key words: aesthetic/aesthetics, character, con/convention, Conquest of Mythodea, representation, epic, community, history, society, hero, identity, culture, LARP/Live-RPG, player

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Wie so oft in typischen Live Action Role-Playing (LARP) Plots ging es um Leben und Tod. Würde es dem Erzmagier des Ordens des Stählernen Sterns nicht gelingen, den Geist des dämonenhaften Wesens zurück in sieben Kerzen zu bannen, würde dieses uns mit ziemlicher Sicherheit alle töten. Hoch beschäftigt mit der Vorbereitung seines Rituals bat der Magier mich, ob ich mich darum kümmern könnte, im Hof des Gutshauses einen Kerzenleuchter mit sieben Kerzen vorzubereiten. Ich nickte. Also schickte sich der Spieler des Magiers an, zu gehen. Doch dann drehte er sich noch einmal um, trat an mich heran und fügte leise hinzu: „Und wenn’s geht, schau, dass es episch aussieht“. Ein Satz wie jeder andere? Mit Sicherheit nicht. Das ästhetische Bewusstsein des Spielers für die Gestaltung des Spiels ist hier wohl unverkennbar. Während der Charakter, von dem das Überleben seines ganzen Ordens abhing, wohl keinen Gedanken an das äußere Erscheinen des verwendeten Kerzenleuchters und daran, ob dieser auf rotem Samt oder einem Jutesack steht, verschwendet haben dürfte, war es dem Spieler so wichtig, dass er den Spielfluss trotz der steigenden Dramatik für einen Augenblick unterbrach, um mir diese „Regieanweisung“ zukommen zu lassen.

Diese Szene aus einer der Conventions der Spielergruppe des Herzogtums Hohenbergen zeigt, dass Live-Rollenspieler nicht zwangsläufig nur um eine möglichst perfekte Immersion, sondern auch um eine ästhetische, in diesem Fall epische, Komponente bemüht sind. Dennoch wurde dem LARP eine ästhetische Qualität lange Zeit abgesprochen. So behauptet Bodo Jentzsch beispielsweise in seinem Artikel „Theater vs. LARP“, dass „die meisten LARPer ihr Spiel nicht im Sinne eines Handwerkes verstehen, welches Kunst oder Ästhetik produziert“ (Jentzsch 2013, 78). Aus dem Interview mit einem einzelnen Live-Rollenspieler scheint der Autor schließen zu können, dass für die Mehrzahl der LARPer „ästhetische Qualitäten in der Darstellung“ (Jentzsch 2013, 78) wenig Bedeutung haben. Sicher, man spricht nicht ohne Grund vom Rollen- und nicht vom Schauspiel. Der Rollenspieler richtet seine Darstellung nicht primär auf ein Publikum aus, genauso wenig wie er einem rigiden Skript mit vorgeschriebenem Text und Regieanweisungen folgt. Und dennoch kann man bei einer Vielzahl von Spielern beobachten, dass sie bei der Darstellung ihrer Charaktere sehr wohl ein starkes ästhetisches Bewusstsein an den Tag legen.

Auch wenn viele Spieler nicht der Meinung sind mit ihrer Live-Rollenspiel Performance einen künstlerischen Akt zu vollbringen, so schließt dies eine ästhetische Ausarbeitung der dargestellten Person keineswegs aus. Im Gegenteil kann man vielmehr anführen, dass dem Live-Rollenspiel automatisch eine gewisse gestalterische Dimension zu Grunde liegt, da die Darstellung eines Charakters immer in seiner Interaktion mit anderen Charakteren entworfen wird und so jederzeit auf die Außenwirkung des Spiels bedacht ist. Ganz gleich, ob dieses Abstimmen des Spiels auf die umstehenden, als Rezipienten der Darstellung fungierenden Spieler, bewusst oder unbewusst geschieht, bleibt sie ein essentieller Bestandteil des Live-Rollenspiels. So bilden die Mitspieler beim Live-Rollenspiel einen essentiellen Bestandteil, wird doch die Darstellung meines Charakters erst dann wirklich effektiv, wenn sie von mindestens einem anderen Spieler wahrgenommen wird.

nommen wird. Natürlich kann ein Spieler seinen Avatar ein Geheimnis hüten lassen, doch auch das macht nur Sinn, wenn er zumindest Indizien, die auf dieses Geheimnis hindeuten, in seinem Spiel mit den anderen Teilnehmern platziert. Dazu kommt, dass auch und gerade von Seiten der Organisatoren eine gewisse Inszenierung des Plots stattfindet. So ist es gang und gäbe, dass sich Nicht-Spieler-Charaktere (NSCs) vor ihrem Auftritt genau überlegen, welche Wirkung sie erzielen wollen und durch welche schauspielerischen Mittel und möglicherweise Effekte sie diese Wirkung erreichen können. Oft werden zentrale Plot-Sequenzen ganz bewusst in Szene gesetzt. Das sogenannte Time-Freeze ermöglicht es den Spielleitern beispielsweise den Handlungsfluss zu unterbrechen, um dem Auftritt ihrer NSCs die nötige Aufmerksamkeit zu verschaffen. Für einige Momente handlungsunfähig, werden die Spieler hier zu wirklichen Spielern. Auf dem *Conquest of Mythodea*¹ werden die finalen Szenen eines Plots außerdem mit aufwendigen Lichteffekten und dramatischer Musik hinterlegt, teilweise sogar im Nachhinein für die Kamera nachgespielt. Eine ästhetische Absicht ist dabei kaum mehr zu bestreiten.

Nun scheint es selbstverständlich, dass die Spieler bei ihrer Tätigkeit als „Autoren“ einer durch das Spiel erzählten Geschichte auf einen reichen Schatz an künstlerischen Einflüssen zurückgreifen. Bewusste Modelle kommen im 21. Jahrhundert sicherlich häufig aus der Filmbranche. Aber auch literarische Vorbilder beeinflussen nach wie vor die Entwürfe der meisten Spielwelten. Noch immer bestimmt der Kampf gegen das Böse, das Ausfechten großer Schlachten oder überschaubarer Kämpfe – je nach Größe der Veranstaltung – gegen die Schergen mächtiger Dämonen, oder anderer Bösewichte die LARP-Welt. Auch wenn immer mehr Veranstaltungen ihren Fokus auf weniger heroische Geschehnisse legen, bleibt das Streben nach dieser Form von Heldentum weiterhin ein fester Bestandteil des Fantasy LARPs. Wie in der Literatur oder im Theater, so kann man auch im Live-Rollenspiel verschiedene Register erkennen, die von der Parodie bis zum Pathos reichen. In ihrem Streben nach Heroik greifen die Spieler dabei oft auf klassisch epische Muster zurück. In dem Bestreben, durch ihr Spiel eine möglichst glorreiche Geschichte zu erschaffen, adaptieren die Spieler die Art der dargestellten Szenen sowie auch die Modalitäten der Darstellung an sich. Ein lichter Paladin wird kaum beim Feiern in einer zwielichtigen Spelunke anzutreffen sein, genauso wenig wie er vor Aufregung stottern wird, wenn er seine Männer mit einer heroischen Ansprache in die Schlacht führt (es sei denn, die Aufregung des Spielers selbst ist zu groß). Um die möglichen Parallelen zwischen Live-Rollenspiel und dem mittelalterlichen Epos sichtbar zu machen, werde ich zunächst die wichtigsten Charakteristika des letzteren rekapitulieren, um anschließend zu diskutieren, wie diese sich im Fantasy LARP widerspiegeln. Hierzu werde ich in einem ersten Schritt den der LARP-Welt zu Grunde liegenden Hintergrund wie auch das Setting verschiedener Conventions in Augenschein nehmen.

¹ Das *Conquest of Mythodea* ist eine Conreihe des Veranstalters Live Adventure, die seit 2003 existiert und einmal jährlich im August stattfindet. Das fünftägige Fantasy-Event ist eines der größten LARPs weltweit, das an die 10000 Teilnehmer versammelt. Für weitergehende Informationen, vgl. <https://www.live-adventure.de/de/>

Anschließend soll gezeigt werden, dass sich im Aufbau und Ablauf vieler Conventions die Erzählstrukturen des mittelalterlichen Epos wiederfinden.

Das Epos zählt zu den ältesten literarischen Genres. Schon Aristoteles definiert es in seinem Werk *Poetik*, jedoch ausschließlich in Bezug auf die *Tragodia*. Auch wenn die von Aristoteles festgelegten Grundzüge bis heute als Richtlinien gelten, scheinen sie schon lange ungenügend, um eine wissenschaftliche Definition des Genres aufzustellen. Insbesondere die Heterogenität eines Genres, das über Jahrhunderte hinweg und in den meisten Kulturen einen festen Platz einnimmt, macht eine formal einheitliche Definition äußerst schwierig. Jean-Marcel Paquette plädiert daher für eine Definition, die weniger auf internen als vielmehr auf externen, das heißt anthropologischen Kriterien, aufbaut (Paquette 1988, 13ff.). Für den von uns angestellten Vergleich zwischen dem mittelalterlichen Epos und dem Live-Rollenspiel erscheint eine derartige Definition umso operationeller, da sie sich nicht auf linguistische Charakteristika beschränkt. Jean-Marcel Paquette erklärt zunächst, dass die spezifische Funktion des Epos darin besteht, einer bestimmten Kultur als Gründungstext zu dienen und dafür das Einheitsgefühl dieser kulturellen Gemeinschaft zu stärken und aufzuwerten. In diesem Sinne sei das Epos „nicht nur eine Erzählung über die historischen Fundamente einer Kultur, es ist selbst konstitutiv für diese Kultur“ (Paquette 1988, 22)². Genau diese Eigenschaft des Epos lässt sich wunderbar auf das LARP übertragen, in dem sie noch deutlicher Gültigkeit erlangt. Denn während das Epos zum Gründungsmoment einer Kultur beiträgt indem es ein Einheitsgefühl durch das Aufarbeiten bereits vergangener Ereignisse schafft, überschneiden sich im LARP Erzählen und historisches Ereignis. So gesehen ist die „Entwicklung einer Gemeinschaft“ (Paquette 1988, 22) im LARP auch immer das Erschaffen einer Spielerschaft.

Gleichzeitig markiert das Epos die Transition von *Geschichtsschreibung* zum *Fabulieren*. Freilich werden in der epischen Dichtung historische Ereignisse verarbeitet, nichtsdestotrotz „öffnet sie auch eine neue Phase der Entwicklung einer Gemeinschaft“ (Paquette 1988, 22), in der die Fiktion die Aufgabe des Identifikationsprozesses übernimmt. Laut Jean-Marcel Paquette besteht die Aufgabe des Epos also darin „die Geschichte in seiner dramatischen Form darzustellen“ (Paquette 1988, 27). Nicht nur die dramatische Ebene lässt sich gut in Bezug zum Live-Rollenspiel setzen. Auch die Kopräsenz von Geschichtsschreibung und Fabulieren erscheint interessant. Anders als im Epos präsentieren sich die beiden Formen jedoch nicht in „einem undefinierbaren Kampf“ (Paquette 1988, 27), sondern vielmehr in einer wechselwirkenden Einheit. Alles Spiel im LARP ist Fiktion, gleichzeitig wird durch eben jene Fiktion neue, intradiegetisch tatsächliche Geschichte geschaffen und erzählt. Weiterhin betont Jean-Marcel Paquette die Wichtigkeit der *Territorialisierung*, anthropologische Phase jedweder Kultur, die das in Besitznehmen eines bestimmten Territoriums durch die Gemeinschaft beschreibt. So schließe das Epos

² Alle Zitate aus dem Französischen Original wurden von mir übersetzt.

immer den Identifikationsprozess der Gruppe mit dem besiedelten Gebiet ab (Paquette 1988, 22). In seiner Funktion vorrangig auf eine Gemeinschaft als Ganzes ausgerichtet, scheint auch der epische Held „seine Heldenhaftigkeit auf die Gesamtheit der Kollektivität aus der er hervorgeht“ (Paquette 1988, 24) auszuweiten.

Nur sehr kurz möchte ich hier auf die linguistische Beschaffenheit des Epos eingehen, da diese im LARP wenig bis gar keine Entsprechung findet. Entscheidend ist hier, dass das Epos die erste künstlerische Schöpfung einer Gemeinschaft in ihrer eigenen Sprache darstellt. Demzufolge zeichnet sich das Epos durch seinen „sprachlichen Archaismus“ aus (Paquette 1988, 25). Als Beispiel für den primitiven Charakter der epischen Sprache führt Jean-Marcel Paquette unter anderem die reine Außenperspektive, mit der selbst die inneren Motivationen der Protagonisten beschrieben werden, an und die zu einer „a-psychologischen Darstellung der Handlung“ (Paquette 1988, 25) führt. In diesem Punkt divergiert das Epos logischerweise vom Live-Rollenspiel, in dem die Innenperspektive jedes Spielers eine entscheidende Rolle spielt.

Was die typische Thematik des Epos betrifft, überrascht es nicht, dass für diese der Krieg angeführt wird. Auch hierbei bezieht sich die dichterische Schaffung auf die Charakteristika der ihr zugrunde liegenden Gesellschaft, die durch und durch kriegerisch ist, oder, um mit den Worten Hesiods zu sprechen dem „Zeitalter der Helden“ (Hesiod, in: Paquette 1988, 26) entspricht. Dementsprechend baut das Epos auf einer konflikthaften Struktur auf, die sich auf drei Niveaus dekliniert. Auf dem ersten Niveau spiegelt sich die „große Polarisierung“ (Paquette 1988, 30f) wider, auf der das epische Universum wie auch die reelle Gesellschaft aufbaut. Die antagonistischen Paare Christentum-Islam und Griechen-Trojaner seien nur zwei Beispiele. Auf dem zweiten Niveau trägt sich der Konflikt im Herzen der Gesellschaft aus, beispielsweise zwischen zwei Protagonisten, die entgegengesetzte Positionen vertreten. Zuletzt sorgt eine Art Alter-Ego des Helden dafür, den internen Konflikt des Helden zu verdeutlichen, der in einem „a-psychologischen Universum“ (Paquette 1988, 30f) nur durch zwei getrennte Charaktere, die symbolisch ein Bewusstsein formen, zum Ausdruck gebracht werden kann.

Während Jean-Marcel Paquette danach strebt, eine übergreifend gültige Definition für die epische Dichtung herauszuarbeiten, beschäftigen sich viele Wissenschaftler vorrangig mit den Epen eines bestimmten Kulturraumes. Schon 1955 verfasste Jean Rychner seinen Essay „La Chanson de Geste“, der sich gezielt mit der epischen Dichtung im europäischen Raum auseinandersetzt und bis heute Gültigkeit bewahrt. Es erscheint logisch, dass sich die Aussagen, die sich auf Texte beziehen, die im westeuropäischen Mittelalter verfasst wurden, leichter auf das deutsche Fantasy-LARP übertragen lassen. Deshalb möchte ich kurz auf die klassische Struktur des *chanson de geste* eingehen, die Rychner am Ende seines Textes behandelt. Rychner betont hierbei, dass sich auch in den niedergeschriebenen Manuskripten Spuren der ursprünglich mündlichen Tradition dieser Epen finden. Demzufolge ist die Struktur der Handlung, wie auch der Sprache dieser Heldenlieder, sehr repetitiv und gewissermaßen in einzelne Bausteine unterteilt, die anschließend vom *jongleur* frei variiert werden konnten. Dies erleichterte das Ab-

speichern der Erzählungen erheblich, doch auch in den schriftlich verfassten Varianten wurde an dieser Struktur festgehalten. So unterscheidet Rychner zwischen *Themen*, also den Leitlinien der Handlung, *Motiven*, die dazu dienen die einzelnen *Themen* genauer auszuarbeiten, und *Formeln*, einer Art stereotypierter Phrasen (Rychner 1955, 126ff.). Während sich die *Formeln* nur schwer auf das Live-Rollenspiel übertragen lassen, da der Ausdruck hier jedem Spieler frei überlassen wird (obwohl ich durchaus verleitet bin, die Vermutung anzustellen, dass auch hier viele Phrasen und Floskeln eine geradezu stereotypische Anwendung finden), kann man viele der *Themen* und *Motive* sehr einfach im LARP wiederfinden.

Nachdem das Epos für unsere Zwecke ausreichend definiert wurde, möchte ich genauer auf die Parallelen eingehen, die sich zwischen dem literarischen Genre und dem Live-Rollenspiel ziehen lassen. In der von Jean-Marcel Paquette erarbeiteten Definition haben wir gesehen, dass eine der Grundfunktionen des Epos darin besteht, einer Zivilisation in ihrer Gründungsphase zu ermöglichen, sich kulturell als Einheit zu schaffen, indem eine von außen eindringende Gefahr gebannt wird. Betrachtet man nun verschiedene LARP-Kampagnen, so kann man feststellen, dass viele davon ebenfalls die Geschichte eines Landes in seiner Gründungsphase beschreiben. *Boltares I-IV*³ zum Beispiel beschrieb den Versuch der einheimischen Elfen, die dämonische Invasion aufzuhalten, während auf dem *Conquest of Mythodea* gleich ein ganzer Kontinent erobert, von den „Verfemten Elementen“ gereinigt, und eine neue Gesellschaft aufgebaut werden musste. Die Ästhetik dieses „Gründungsmomentes“ ist natürlich extra- wie auch intradiegetisch bedingt. Auf den Conventions des *Conquest of Mythodea* wurde tatsächlich innerhalb der Diegese die Entstehung und Festigung einer neuen Kultur bespielt, da die Spieler als Siedler, ähnlich der Besiedlung Amerikas, auf dem neuen Kontinent ankamen und dort erst einmal eine neue Gesellschaft geformt werden musste. So musste zu Anfang eine neue hierarchische Struktur herausgearbeitet werden, die sich über die Kampagne hinweg erhält und weiter festigt. Entscheidend für die Identitätsbildung dieser neuen Gesellschaft, wie auch der Spielerschaft war und ist natürlich die Bedrohung von außen. Dieser Konflikt ist in entsprechenden LARP-Kampagnen wie dem *Conquest of Mythodea* genau wie im Epos auf einer klaren, ideologisch stark vereinfachten Opposition zweier Fraktionen aufgebaut. Ähnlich wie in vielen westeuropäischen Epen ist dieser Konflikt auch im *Conquest of Mythodea* religiös bedingt. Der Gegensatz Gut – Böse begründet sich in diesem Sinne im Glauben. Während die Seite der Spieler weitestgehend den vier Elementen folgt, stellen sich ihnen auf der Seite der Nicht-Spieler die Anhänger der vier Anti-Elemente entgegen, die mit den Spielern um die Vorherrschaft auf dem Kontinent streiten. Im Gegensatz zum literarischen Epos funktioniert diese Identitätsbildung allerdings von beiden Seiten aus, da auch die Fraktion der NSCs sich nach und nach durch die

³ *Boltares* war eine vierteilige Fantasy-Conreihe des nicht-kommerziellen Veranstalters *Unheil*. Die Cons fanden von 2004 bis 2009 in Bayern statt.

Abgrenzung von den Spielern als Einheit erschafft. Hierbei überwiegt generell der extradiegetische Faktor. Das heißt, dass sich die Teilnehmer mehr als NSC-Gemeinschaft, als IT-Kultur⁴ konstituieren. Allerdings lässt sich in den letzten Jahren eine Tendenz hin zu einer stärker thematisierten und sich weiter festigenden IT-Zivilisation auch auf Seiten der NSCs erkennen. Dies zeigt sich zum Beispiel im Trailer des Jahres 2015, der die Ereignisse aus Sicht der NSC-Fraktion beschreibt⁵.

Am Beispiel des *Conquest of Mythodea* lässt sich auch leicht nachvollziehen, wie sich im Live-Rollenspiel Fiktion und Geschichte überlagern. Jede Convention ist hier gleichzeitig *Fabulieren*, Fiktion, das heißt Erfinden einer Geschichte, die allerdings intradiegetisch zur historischen Realität wird, und das „Niederschreiben“ dieser Geschichte, also *Geschichtschreibung* im weitesten Sinne. Der „Gründungsmoment“ ist hierbei in gewisser Weise noch stärker als im Epos. Viele andere LARP-Kampagnen hingegen bauen auf einem Hintergrund auf, in dem die entsprechende Kultur und Gesellschaft schon besteht und auch schon über eine gewisse Geschichte verfügt. Dennoch muss sich auch hier die Spielerschaft erst im Laufe der Veranstaltungen festigen. Abgesehen davon bleibt das Phänomen einer äußeren Bedrohung, durch die sich die Gemeinschaft weiter als Einheit bestärkt, oft bestehen. Am Beispiel der vierteiligen Kampagne *Boltares* kann man sogar feststellen, dass die Gegenüberstellung Gut-Böse noch weiter vereinfacht wurde. Die Bedrohung ging hier schlichtweg von einem Dämon und seinen Schergen aus, die das Land überfallen wollten. Jedwede Nuance, jedwedes Sympathisieren mit den per Definition bösen Kreaturen wird hier unmöglich, sodass die Abgrenzung und dadurch auch der Identifikationsprozess mit der eigenen Gemeinschaft noch erleichtert werden. In beiden Fällen, dem *Conquest of Mythodea* wie auch *Boltares*, aber auch in vielen anderen LARP-Kampagnen, spielt das Land, in dem die Geschichte spielt eine entscheidende Rolle. So sind viele Kampagnen schon nach eben dem Land benannt, in dem sie spielen, das Phänomen der *Territorialisierung* ist im LARP somit ebenso verankert wie im Epos.

Darüber hinaus lassen sich vor allen Dingen deutliche thematische Ähnlichkeiten zwischen dem mittelalterlichen Epos und dem Live-Rollenspiel erkennen. Die mittelalterliche Prägung der Welt, die dem Fantasy-LARP zugrunde liegt, ist, auch wenn sich diese inzwischen geographisch wie historisch stark erweitert hat, unbestreitbar. Zwar findet man heutzutage von antiken Griechen bis zu Gangs, die sich an das 19. Jahrhundert anlehnen, fast alle vergangenen Epochen im Live-Rollenspiel vertreten, jedoch kann man im gleichen Atemzug feststellen, dass die Spieler, die sich dem Kampf Gut gegen Böse verpflichten, überwiegend mittelalterlich geprägte Hintergründe wählen. So ist die

⁴ IT wird als Abkürzung für den Begriff *intime* verwendet, der alles beschreibt was im Spiel stattfindet, beziehungsweise die Spielwelt betrifft. Im Gegensatz dazu bezeichnet *outtime*, kurz OT, alle der realen Welt zugehörigen Aspekte.

⁵ <https://www.youtube.com/watch?v=kClEhY0bcNA>, Live-Adventure veröffentlicht jedes Jahr einen Trailer, der sich aus Aufnahmen der vergangenen Veranstaltung zusammensetzt und gleichzeitig die Handlung dieser Convention resümiert.

Mode des 18. Jahrhunderts vorrangig unter den Seefahrern verbreitet, während das 19. Jahrhundert sich oft in Form von Straßengangs manifestiert, wie man sie zum Beispiel in der Stadt des *Conquest of Mythodea* antrifft. In beiden Fällen handelt es sich bei diesen Spielern um Gruppierungen, die das Schlachtfeld eher selten aufsuchen. Mit anderen Worten, die Spieler, die, wenn wir beim Beispiel des *Conquest of Mythodea* bleiben, am Haupt-Plot der Bekämpfung der verfeindeten Elemente mitarbeiten, orientieren sich in der Regel an einer mittelalterlichen Welt im weitesten Sinne. Die allgemeine Vorstellung einer solchen mittelalterlichen Welt ist wiederum, wenn auch oft unbewusst, stark mit bestimmten epischen Erzählungen wie der *Artussage* oder dem *Nibelungenlied* verbunden. In verschiedensten literarischen wie auch kinematografischen Adaptionen wurden jene Epen immer und immer wieder neu aufgegriffen und so bis ins 21. Jahrhundert hinein vermittelt. Auf der anderen Seite darf man auch den Einfluss verschiedenster Fantasy-Werke auf unser heutiges Bild des Mittelalters nicht vernachlässigen. Der *Herr der Ringe* (Tolkien 1954-55) an erster Stelle, aber auch zahlreiche andere Fantasy-Werke sind nicht nur ihrerseits als Epen angelegt, sondern inspirieren sich auch bei der Ausgestaltung der in der entsprechenden Welt anzutreffenden Kulturen an der Epoche des Mittelalters. Da sich die LARP-Welt auch deutlich an verschiedene Fantasy-Werke anlehnt, wird die mittelalterlich-epische Prägung noch verstärkt.

Dadurch entsteht im Live-Rollenspiel eine epische Grundstimmung, die sich beispielsweise im Konzept des Heroischen zeigt – genau wie das Epos ist das Live-Rollenspiel ein ‚Zeitalter der Helden‘. Die Ähnlichkeiten zwischen dem literarischen Genre und dem neuzeitlichen Hobby manifestieren sich hierbei schon in so einfachen Dingen wie dem fast gänzlichen Ausblenden alltäglicher Tätigkeiten. Natürlich findet man Spielergruppen, die großen Wert auf das gemeinsame, IT-taugliche Kochen legen, spätestens beim Abspülen jedoch verlassen die meisten Spieler genau jene IT-Zone und nur selten findet man Spieler, die einen ganz Abend mit Spinnen oder Nähen zubringen. Was im Epos eine ästhetische Wahl ist, könnte man im LARP freilich damit begründen, dass die Zeit auf den Conventions extrem begrenzt ist und das Hauptaugenmerk dadurch auf die wichtigen Handlungen gelegt wird, dass gewissermaßen eine Hierarchisierung unter den spielenswerten Sequenzen vorgenommen wird. Aber die Parallelen gehen weit über den zu Großteilen fehlenden Alltag hinaus. So findet man im LARP häufig eine ähnliche Konfliktstruktur wie sie weiter oben für das Epos beschrieben wurde. Wie auch im Epos sind die Intrigen vieler LARPs um den Gegensatz Gut-Böse herum aufgebaut. Diese klare Unterscheidung und Konfrontation zwischen der Partei des Helden und seinen Feinden, die durch das Aufkommen des Romans nach und nach aufgeweicht wurde, kann im Live-Rollenspiel wieder zum Leben erweckt werden. Um die politische Korrektheit zu wahren, werden hier allerdings meist keine Religionsgemeinschaften oder andere Ethni-

en zum Feindbild erkoren, sondern Dämonen, Untote oder Anti-Elemente⁶, kurz Kreaturen, bei denen auch der postmoderne Spieler keinerlei Skrupel haben muss, sie für bedingungslos schlecht und daher vernichtenswert zu erklären. Ohne auf Einzelheiten einzugehen, da hierzu eine detaillierte Fallstudie nötig wäre, möchte ich doch erwähnen, dass auch das zweite Niveau, eine Art innergemeinschaftlicher Konflikt, nicht zwangsweise, aber durchaus häufig anzutreffen ist. Im LARP-Jargon hat sich dafür bereits ein eigener Begriff entwickelt: das sogenannte *Konfliktspiel* beschreibt rein intradiegetische Auseinandersetzungen, die als eine Erhöhung der Spieltiefe, also der Immersion, gewertet werden. Einzig das dritte Niveau, in dem der epische Held zur Thematisierung eines inneren Konflikts mit einem Alter Ego konfrontiert wird, entfällt im LARP, da hier im Gegenteil die psychologische Komponente des Spiels und der Spielerfahrung entscheidend ist. Innere Konflikte eines Helden werden demzufolge von jedem Spieler eigens ausgetragen, wenn auch oft nach außen projiziert.

Auch auf mikrostruktureller Ebene lassen sich gewisse Gemeinsamkeiten zwischen dem Epos und dem Live-Rollenspiel erkennen. Sicherlich sind LARP Conventions in ihrem Aufbau und Ablauf sehr viel heterogener als eine epische Erzählung, dies trifft insbesondere auf sogenannte Groß-Cons zu⁷. So wird es auf vielen Cons immer Spieler geben, die ihre Zeit lieber auf Ambiente, Schurken- oder ausgeklügeltes Intrigenspiel verwenden. Das ändert jedoch nichts an der Tatsache, dass der epische Kern weiterhin in vielen Plots verankert ist und auch immer noch Spieler bewusst genau diesen epischen Aspekt im LARP suchen. Betrachtet man die Trailer der einzelnen Conventions des *Conquest of Mythodea*⁸, stellt man schnell fest, dass der Veranstalter den Akzent ganz klar auf die epische Färbung legt. Das gesamte Stadtspiel mit seinen feuchtfröhlichen Tavernen und seinen politischen Intrigen, das Seefahrerlager mit seinen rauschenden Festen werden in diesen Trailern in wenigen Sekunden abgehandelt, ganz gleich ob es hunderte von Spielern gibt, die ihr Spiel genau auf diese Bereiche beschränken. Die epische Ausrich-

⁶ Die Anti-Elemente des *Conquest of Mythodea* bilden hier einen Sonderfall. Es handelt sich bei ihnen zwar um eine Art Gegenteil des Elemente-Glaubens, die Anhänger dieser Anti-Elemente (Untotes Fleisch, Schwarzes Eis, Pestilenz) sind aber nicht nur einfache Gläubige (das heißt Menschen, Elfen, Orks etc.), sondern selbst anti-elementare Kreaturen, die deshalb von den meisten Spielern als bedingungslos böse eingestuft werden.

⁷ Es gibt keine wirkliche Grenze, ab wann eine Convention im LARP-Jargon als Groß-Con bezeichnet wird, als groben Richtwert kann man eine Teilnehmerzahl von mindestens 1000 Personen anführen, da ab dieser Zahl ein logistischer Aufwand in professionellem Umfang nötig wird.

⁸ Eine Auswahl an Trailern des letzten Jahrzehnts zeigt deutlich, dass diese als Werbespots und gleichzeitig als Vorschau für die kommenden Ereignisse angelegten Ausschnitte der vergangenen Veranstaltungen immer wieder ähnliche Szenen reproduzieren. Hierbei werden Schlachten, Duelle, kriegerische Ansprachen, sowie Heldenprüfungen klar bevorzugt, oft begleitet von einer schicksalsschwangeren Stimme, die die folgenschweren Ereignisse der letzten Veranstaltung zusammenfasst und Ausblicke auf die nicht weniger imposante Zukunft bereithält.

Vgl.:

https://www.youtube.com/watch?v=qou_WTbo7ZY

https://www.youtube.com/watch?v=h_sÜyEZVCP0

<https://www.youtube.com/watch?v=QXHAVeDawQ>

<https://www.youtube.com/watch?v=jIEaQL0iQZI>

tung der Kampagne wird hier also schon von den Organisatoren ganz klar propagiert. Darüber hinaus wird niemand abstreiten wollen, dass der gute Ritter oder Ordenskrieger, der gegen die Mächte des Bösen in den Krieg zieht, nach wie vor ein verbreitetes Spielkonzept darstellt. Und eben in diesem Kontext kann man vermehrt epische Muster nachweisen. Wie ich weiter oben schon angemerkt habe, habe ich bei meinen Beobachtungen die sogenannten *Formeln* außen vorgelassen, und habe mich stattdessen auf die *Themen*, vor allem aber auf die *Motive* konzentriert.

Was die *Themen* betrifft, gilt es zuerst anzuführen, dass der *Plot* eines Epos immer um einen zentralen Helden herum strukturiert ist. Im Live-Rollenspiel hingegen agieren immer mehrere Spieler mehr oder weniger gleichberechtigt neben- und miteinander. Selbst wenn innerhalb einer Spielergruppe ein Spieler als Ritter, Prinz oder Paladin eine zentrale Rolle einnimmt, so ist man in der Regel trotzdem darauf bedacht, alle Spieler gleichermaßen ins Spiel mit einzubeziehen und ihnen nicht das Gefühl zu geben, bedeutungslose Statisten zu sein. Dazu kommt, dass es auf den meisten Veranstaltungen, die das Einladungscon⁹ überschreiten, mehrere Spielergruppen gibt, demzufolge existieren auch mehrere potenzielle Führungspersönlichkeiten. Die *Themen* im LARP sind also weniger stark um einen Helden herum aufgebaut. Deshalb und auch da die meisten Spieler ihre Charaktere *in medias res* im Erwachsenenalter ins Spiel einführen, entfallen *Themen* wie die Jugend des Helden. Gemeinsame *Themen* hingegen sind diejenigen, die sich um Kriegs- oder Kampfhandlungen drehen, wie Kriegsvorbereitungen und die Schlachten an sich, aber auch die schrittweise Ausbildung eines Helden und der damit verbundene Aufstieg. Auch den Tod des Helden kann man als gemeinsames *Thema* anführen, da auch im LARP immer wieder Helden, das heißt Spielercharaktere, sterben und durch ihren Tod vorübergehend in den Mittelpunkt des Spiels rücken.

Diese übergreifenden *Themen* sind, wie oben schon erwähnt, untergliedert in einzelne *Motive*. Nicht alle dieser *Motive* lassen sich freilich gehäuft im klassischen Live-Rollenspielszenario wiederfinden. Bei einer Vielzahl ist das jedoch der Fall. Zur besseren Verständlichkeit habe ich die verschiedenen *Motive*, wie sie im LARP anzutreffen sind, in drei Kategorien unterteilt. So werde ich als erstes von den *Motiven* sprechen, die zum Vorantreiben der Geschichte oder auch schlichtweg zum Ambiente beitragen. Klassische Beispiele hierfür sind das Entsenden von Unterhändlern, wie auch das Töten eines Kriegers, einem Bereich, in dem man wohl am ehesten auch im LARP immer wiederkehrende Formeln ausmachen könnte. Daneben erwähnt Rychner das *Motiv* des Traums oder der Vision, die dem Held Auskünfte über die Zukunft vermittelt. Tatsächlich bedienen sich viele Spielleitungen dieses commodien Mittels, um den Plot in eine bestimmte Richtung zu lenken. Mit dem *Motiv* des Banketts befinden wir uns schließlich

⁹ Einladungscons sind Veranstaltungen, die nicht öffentlich angekündigt werden. Nur ausgewählte Spieler können sich dazu anmelden, weshalb die Teilnehmerzahl meist recht gering ist. Oft haben solche Cons sehr viel höhere Ansprüche an die Homogenität der Spielwelt, sodass es häufig auch besser definierte hierarchische Strukturen mit einer eindeutigen Spitze gibt, als dies bei öffentlich ausgeschriebenen Abenteuer- oder Schlachtencons der Fall ist.

an der Grenze zwischen Plot und Ambiente. Natürlich kann es während eines Festessens zu diplomatischen Unterhaltungen kommen, vielmehr tragen diese im LARP aber zu einer größeren Realitätsdichte der Spielwelt bei. Zusätzlich dazu gibt es *Motive*, die, stark in den Kampfhandlungen verankert, vorrangig dazu dienen, die heroische Dimension des Spiels zu unterstreichen. Hierzu kann man beispielsweise das Mobilmachen der Truppen, wie auch das Aufrüsten einzelner Ritter oder Paladine zählen. Aber auch der Zweikampf zwischen zwei entscheidenden Figuren aus verfeindeten Lagern, aus militärischer Sicht völlig realitätsfern, findet im Epos wie im LARP oft Anwendung. Sicherlich tragen diese häufig auch dazu bei, den Plot voranzutreiben, da der Ausgang des Zweikampfes mit weitreichenden Konsequenzen verbunden ist. Im Mittelpunkt steht hier jedoch die heroische Inszenierung einzelner Charaktere. Diese kann verstärkt werden durch das Einarbeiten von Gebeten oder Ritualen, die von den Spielern selbst meist darauf ausgelegt sind, eine ‚epische‘ Wirkung zu generieren.

Um diese Kampfhandlungen herum, aber auch in anderen Szenen anzutreffen, gibt es *Motive*, die das pathetische Moment des LARPs stark herausarbeiten. So intensivieren sie vor allem die performative Komponente des Live-Rollenspiels. Wer nun denkt, dass diese eher theatralische Seite nicht mit dem Epos vereinbar ist, dem kann man entgegenhalten, dass schon im Namen des französischen *chanson de geste* eine gewisse performative Dimension impliziert ist. Diese wurde zu Beginn, vor der Niederschreibung jener epischen Erzählungen, durch den *jongleur* sichergestellt, der seine Erzählung durch ein reichhaltiges Spiel lebhafter zu machen suchte. Zu diesen kann man zum Beispiel die Beleidigungen und Drohungen vor oder während eines Kampfes oder einer Schlacht zählen. Diese sind im Live-Rollenspiel gerade deshalb so beliebt, weil sie die Immersion erhöhen indem sie die Dramatik des Moments bewusst anheizen. Ein Rollenspieler wird freilich nie die gleiche Anspannung in Anbetracht eines bevorstehenden Kampfes empfinden wie ein wirklicher Krieger. Das Anheizen der Stimmung vor dem Kampf, aber auch die Ermutigung der Umstehenden während eines Zweikampfes bieten hier eine gute Möglichkeit, die emotionale Einbindung der Spieler zu steigern. Auch das lautstarke Klagen und Weinen wird im LARP gerne übernommen. In der Tat scheinen plötzliche Tränenausbrüche immer mehr als Möglichkeit gewertet zu werden, die Intensität des Spielerlebnisses, aber auch das eigene (schau-)spielerische Talent zum Ausdruck zu bringen.

Schlussendlich stellt sich die Frage, ob, im 21. Jahrhundert angekommen, das Live-Rollenspiel die gesellschaftliche Funktion des Epos übernehmen kann. Die politische und soziologische Bedeutung des Epos für die Identitätsbildung einer Gemeinschaft scheint heutzutage sekundär. Allerdings kann man zu bedenken geben, dass im Zeitalter der Postmoderne nationale Abgrenzungen, die unsere Identitätsbildung seit dem 19. Jahrhundert prägen, beginnen zu verschwimmen. Ein neuer Identifikationsprozess ist daher unumgänglich. Es stellt sich so die Frage, ob sich im Live-Rollenspiel ein episches Grundbedürfnis des Menschen wiederfinden lässt, das genau in dem Moment wieder

relevant wird, da gefestigte Identifikationsmuster nach und nach aufweichen. Jedoch erleben wir im LARP eine Transposition des epischen Registers in eine Sekundärrealität, die somit erneut einen Weg zur kulturellen Selbstdefinition und Katharsis öffnet. So erklärt die Elfenspielerin Nicole Busch in dem Dokumentarfilm *Wochenendkrieger*: „Der Mensch sehnt sich ja doch nach irgendwas das größer ist als man selbst.“ (Geiger 2012a) Chris Fano, NSC auf dem *Conquest of Mythodea* ergänzt, und das obwohl sie selbst einen Charakter der verfeimten Elemente darstellt : „Wir alle wollen irgendwie Helden sein, [...] und im Live-Rollenspiel ist das einfacher.“ (Geiger 2012b) Ob und in wie fern das Live-Rollenspiel die sozio-kulturelle Funktion des Epos erfüllen kann, sprengt jedoch den Rahmen dieser Untersuchung. In ästhetischer Hinsicht aber scheinen die Parallelen zwischen Epos und Live-Rollenspiel unbestreitbar.

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Transition: Trauma of the spiritual Renewal

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Abstract

Transition as a political and economic concept in literary culture is an empty signifier. The article detects frames of altered value relations and incidentally earned traumas through the paradigm of FAK-ian “type” realism. Both trauma and transition are spectacular and that is their only literary function.

Key words: transition, trauma, literature

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“Change is our mantra, monotony our constant” – a verse from the song “Take Care” by famous rock artist Damir Avdić, summarises all there is to say about transitology, memory, values, and ideologies: Human Reich. Trauma has a sublime voice in raw riffs and unforgiving verses. Polish sociologist Piotr Sztompka correctly detected the social causes of trauma in culture – it has to be swift/sudden, radical/encompassing, and exogenous/imposed from the outside, as it is mentally perceived as shocking (Sztompka 2000, 452). Since it is accompanied by an inconsistency in culture and a lack of homogeneity and stability, it became polarised. Furthermore, multicultural societies repulsed by foreign cultures have a second source of trauma exemplified by concepts of ethnic collectivism (Sztompka 2000:454). Ethnic/national traumas from the past have returned at the beginning of the 1990s and have indicated, yet again, mechanisms of forced repetition. Trauma was merely a reflexive reaction to an unpleasant stimulus and, as well as the war, one concept forced itself in the guise of a mantra: transition.

Transition signifies an intermediary, a shift (Buden 2010, 121f). In economics and politics, it was usually defined as an encompassing shift from socialism to capitalism, that is to say, a transformation from the state economy to a, so-called, market economy and democracy.¹ By common and banal assumption, anything that was not good has been transformed. Hence, it was obvious that socialism was a damaged good, and so we replaced it with a slogan: Croatian rifle on the Croatian shoulder, and Croatian wallet in the Croatian pocket. Twenty-five years later, the so-called post-socialism is described on web portals and newspapers, on TV, in magazines and books, by almost the same terms. It is clear (and expert literature is rife with apocalyptic intonations) that we are facing, yet again, a kind of error, and by all accounts the error is constitutionalised. John Locke was certainly an exception when at the very outset of his essential study, “An Essay Concerning Human Understanding”, he acknowledged that although he was convinced that the theses are true, there is a considerable possibility all of them being false.

But what is an error? In Anić’s Dictionary of the Croatian Language, it is defined as a lack. So, the next logical step is to ask ourselves – what is lacking? “Non-achievement at the heart of truth itself” (Žižek 2008, 49). And it is true that this paradox is constitutionalised, no matter the topic – whether it is subject, culture, poetics and politics, society and nature, and so on, we always reach the illusion, or:

The idea that one is able from the outset to account for error, to take it under consideration as error, and therefore to take one’s distance from it, is precisely the supreme error of the existence of metalanguage, the illusion that, while taking part in illusion, one is somehow also able to observe the process from an ‘objective’ distance. [...] By avoiding identifying oneself

¹ In literature, several fields of transition are covered: privatisation, trade and tariffs liberalisation, reform of the social and political system, and reform of enterprises. All of them are evaluated by the liberalisation index (WR), measurements showing a degree of the transitional progress.

with error, we commit the supreme error and miss the truth, because the place of truth itself is only constituted through error. (Žižek 2008, 54)

Thus, no irony intended, it seems to me all that was wrong in socialism, as well as in our version of capitalism, is actually non-error. The same goes for the claim that for a quarter of the century “[...] culture [has been] understood as a fundament and bearer of the national identity” (Banović 2015, 161); and I would add, for ethnic clericalism as one of the generators of the spiritual development. Nevertheless, why is the discontent flourishing in the culture that holds constitutive and identity components – nation and religion – as infallible, moreover, as desired results? It would be completely wrong to understand Orwell’s claim as wrong: “No nationalist ever thinks, talks, or writes about anything except the superiority of his own power unit” (Orwell, 2015). Because:

By ‘nationalism’ I mean first of all the habit of assuming that human beings can be classified like insects and that whole blocks of millions or tens of millions of people can be confidently labelled ‘good’ or ‘bad’. But secondly — and this is much more important — I mean the habit of identifying oneself with a single nation or other unit, placing it beyond good and evil and recognising no other duty than that of advancing its interests. (Orwell, 2015)

But let us go back to the constitutionalised error we do not like at all (maybe because it is unethical)? Just like in the fairy tale “The Emperor’s New Clothes”, only children, who are the bravest of all, could see the obvious. The Emperor/Father as a representation of ideology, representation of error, is a mere panopticon. The concept of transition itself became an empty signifier, an autoreferential concept. In the context of a transitional object, it is only an illusion, in accord with Tertullian’s proof for the content of faith in which one believes because it is absurd (*credo quia absurdum*).

It is obvious that in Croatian literature and culture, after a quarter of century, certain processes are clear. After the disintegration of Yugoslavia, the Other became an aversive concept. In general, two limiting values were cleaved – one is external, in relationship with other state entities, and to accomplish this, one needs to re-define identity, typically within national concepts (national: language, history, culture, food, the sky above the sea). The second, internal rift, occurs within the country, at least if we talk about Croatia, in the domicile culture, understood as a mythical place, with the traumatic year 1991 as its genesis. Recently, the bone of contention on internet portals was the question: “Where were you in 1991?” Abjection, as a fence, a safeguard and a limiting value, signifies the primers of one’s own culture (Kristeva 1989, 8). One feature of the world is very interesting – every now and then it stops. We are talking about a caesura that, by biblical logic, knows the year in which the world began. Long duration presupposes a short memory, hence the definition for social identities repeatedly stumbles over a sticking point – tradition; and we do not want to know much of it, and so, for the most

part, we imagine it and overwrite it, often forgetting documented sources. Transition largely ends in myth, or it simply signifies virtuality.

Actually, transition ended a long time ago. The epistemic cut, caused by the war, was, in essence, an illusion of the revolutionary break with previous social, cultural, economic and other paradigms. Therefore, transition as a concept has long since been an empty signifier, a mere platitude. But one of its aspects, the most important, is still active and is used to describe transition as a set of practices, from political to cultural, serving Western hegemony. We are talking about a performativity where an apparently innocent concept signifies a range of methods for subjugation, practices of colonisation. However, in trans-corporative reality, we have to keep appearances alive. For things to remain the same, everything must change, and in the case of the post-Yugoslav space, this conception certainly has mystical overtones because its executive power is always in delay; the revolution was a permanent process, so the transition should not end or even come close to its end: it should be a flowing revolution. Shift – from the past to the future – is an eschatological conception – the transition never ends because we know nothing about its beginning, and in the future, there is a hope that eventually the transition will be completed. Revolution is meaningless if it only presupposes a regime change. Concepts of socialist revolution and of Christian eschatology amazingly converge in the conception of the near future. Jacob Taubes saw the creative dimension of revolution in its ability to constitute new totalities in the world. Taubes, in a key statement, claims that “a nihilistic revolution does not pursue any goal [telos], but takes its aim from the movement itself and, in so doing, comes close to satanic practice” (Taubes 2009, 20). If we put aside devils and go back to our context, we could only see movement in the political-economic sphere, total nihilistic dynamics. It could not be clearer – discourse about the end of history is the master’s speech, and the master is a master because we acknowledge his colonising status, since a slave is not independent. Hegel inserts the slave between the master and the thing, and the slave’s dependence and his servitude are ruled by fear (Hegel 1986, 116–119). We already said that the transition primarily signifies a set of political-economic practices for governing a territory.

The only revolution in culture was the one we mentioned before, and now it is mainly dependent on the market. Generally, transition in culture would suppose a wide range of institutionalised, managerial, and evaluative strategies with the aim to bridge the gap between the socialist conception of culture and a capitalist market conception of culture (Zlatar 2010, 117). This road leads from collectivist illusions to illusions of civil society, because we did not have collectivism in the past and we do not have a civil society today.

As regards culture, which culture are we talking of? All I can see are small and ghettoised spaces supporting an illusion of a culture. Publishing houses are devastated, and valuable books are printed only with grants by the Ministry of Culture of the Republic Croatia. Frankly speaking, for the price of two Euros, the price mentioned by the former Croatian politician and ex-keeper of the State seal, Ivan Milas, we subsidise Bulgarian literature, a literature that for the theoretician Stanko Lasić is closer to Croatian

literature than Serbian literature, judging from his statement in the press. This story has its own geneses, and I am only interested in a genesis connected with memory: “The manipulation of collective memory makes no grand claims on the future. On the contrary, the historic memory serves as a monument to a people’s historic suffering. Its focus is on the destructive side of the human species.” (Furedi 2008, 120) It appears that we are forgetting a key document from the beginning of the cultural-spiritual transition, a collection of essays entitled “Spiritual Renewal of Croatia” published in 1992 and edited by Fra Ante Baković. The main thesis of the collection is very simple – human spirit has been devastated by socialism and we have to rebuild this spirit. How? We have to forget! History should have been erased in a way described by Baudrillard who noted that “one day we shall ask ourselves if Heidegger himself really existed” (Baudrillard 2001, 196). This is a radical standpoint implicating that modernist art practices, like *Exat 51* and *New Tendencies*, the Zagreb Stylistic School and *Praxis*, *Music Biennale Zagreb* and *Eurokaz*, and many other institutions present in the European cultural space, did not really exist. But, a different miracle appeared and in the meanwhile has again disappeared; it materialised itself in downtown Zagreb and became the aesthetic paradigm for spiritual renewal in the 1990s – the museum *The Miracle of Croatian Naive Art* and the catalogue published in 1996 that revalorised a valuable phase of 20th century Croatian painting. The road that leads from *Sven Stilinović*, *Ivan Dodik Trokut*, *Tomislav Gotovac*, *Goran Trbuljak*, and *Edita Schubert* in 1980s to the 1990s in which naive art became a visual representation of the ideology is very impressive. If trauma is a point of failure of symbolisation (Žižek 2002, 228), than it is obvious that Yugoslavia, as well as Croatia afterwards, have not succeeded to symbolically define themselves. In the latter case, symbolic identification was partial and incomplete by basic symbols of the statehood – the flag² and the national anthem.³ Or maybe we have issues with design and vocal interpretation? And we are only talking about paradigms that conceal troubles with language, ideology, and culture in the broadest sense.

Again, we have to go back to the logic of beginning. *Sasha Tsenkova* (Tsenkova 2009) in her analysis of political, social, and economic transition in the post-socialism era made an obvious conclusion: there is an intensive downfall in all those concepts, coupled with a recommendation to continue with the consistent transition of changing the course from public to private, all in order to change the thesis – it was not transition that was problematic but the lack of it (Melich 2005, 117–139); a very cynical attitude indeed. In literature, its natural course was stopped, a continuity that *Vojislav Mataga* correctly described in the context of progression: modern – post-modern – trivial. Hence, the easiest way to describe the transition in literature is to present it in a context of changed paradigms, on the way from post-modernism to realism.

² Disputes about the red/white first square in the coat of arms.

³ *Milivoj Slaviček* inserted the sea in the national anthem written by *Antun Mihanović*.

Judging by criticism, transitology in literature signifies a renewal of realism. Noise in the understanding of the entire contemporary Croatian literature was produced by cultural studies with their propensity for psychoanalysis, theory of discourse, popular culture, hegemony, and so on, concerning questions of gender, identity, post-colonialism, consumption, etc. This contribution was welcomed because it pluralised the theoretical and academic environment, but an unwanted phenomenon of overinterpretation was also produced, with the analysis of this and that, as Meaghan Morris ironically observed about a tendency of cultural theoreticians to discern a subversive cultural potential in everything, in any banality (Meaghan 2015). But, a theory leaning on interpretative discourse was often unable to step back from what was offered from the so-called realistic fiction [stvarnosna proza]. This brand of fiction, although terminologically wrong but always present in the discourse of literary criticism, was mainly produced in the banal – “the story is often linear, narration barren, the main motif connected with the immediate milieu, and in general decorated with a modicum of sex, alcohol, and drugs” (Bagić 2004, 121–122). I could not see any trace of subversive cultural potential in all that!

Transitology was embraced by the culturologist of culture Maša Kolanović and she defined the transition in an ideological context, ranging from socialism to transition, while she was aware that the concept is vague (Kolanović 2011, 27). Although literature as a socialist and capitalist cultural form was interpreted in many ways after the year 1991, something remained the same – literary genres. In the context of poetics, “an urban motif, a strong affiliation with characters from the urban margin... colloquial (even jargon) language, hard erotica verging on pornography, and a rather strong fabular structure...” (Visković 2006: 29), are practically synonyms for the blue jeans fiction. In the context of genre, we have a regression, and something more important as well – a sweet decadence of the post-modernism has incorporated modernist worldviews that became traditional in the conception of a miracle of Croatian naive art. As Latour said: “Real as Nature, narrated as Discourse, collective as Society, existential as Being: such are the quasi-objects that the moderns have caused to proliferate. As such it behooves us to pursue them, while we simply become once more what we have never ceased to be: amoderns.” (Latour 2004, 92)

In order to sketch the narrative transition in Croatia, I will use the example of the so-called FAK. The group of writers labelled with this tag had the biggest media visibility in the past twenty-five years and their poetic and aesthetic conceptions were dominant not only in Croatian literature.

A certain non-modernity of members of the FAK group was systemic, and they were deconstructed even by their name. It began as a Festival of Alternative Literature and ended as Festival of Literature. During 1980s, the term alternative indicated various practices aimed to subvert culture from the margins, but the term with emphatic A occupied a position to claim values of what was deconstructed. The FAK was, in a way, similar to punk rock working in the frame of rock music aiming to announce the death of rock but became a fashion in the 1990s. In the context of the FAK, it seems that its

members were neither alternative nor the A class. The FAK did not contribute anything to the Croatian literature in poetic, stylistic, or value terms that had not already been there before the 1990s. Moreover, the writings of this group are full of stereotypes and commonplaces.

The FAK dissolved at the moment when writers Arijana Čulina and Vedrana Rudan had sold more copies of their books than all members of the group together. Furthermore, Vedrana Rudan correctly reinterpreted a scandal in Croatian society, politics, and culture, when she simply stated: The emperor has no clothes. As members of the FAK group were enjoying writing pornography for Libido.hr like teenagers, Rudan recognised it as a needle in a haystack of Croatian polite gestures. In other words, she openly problematised all traumatic themes in Croatian politics and culture, as well as those who were responsible for these traumas, and subsequently deconstructed a false opposition, an illusion about the FAK as alternative.

Croatian fiction in the 1980s often described the disappearance of classical themes, displaced by various types of experiments, conceptuality, meta- and inter-textuality, and irony. This development had its own inherent reasons and logic. During the 1990s, the motto “activate our differences” was displaced by the statement of Robert Perišić in 2011: “Writers were led down the garden path believing they have to earn their living on the market.”⁴ Holding⁵ literature was in part a reaction to the incomprehensible discourse of some postmodern literature for the readership. Milan Galović pertinently described a genesis of kitsch art: “It seems that this kind of art emerged particularly when artists became more and more incomprehensible to the general public. Literary works were produced full of compilations and intelligible details but the whole was lost” (Galović 2011, 64).

Tomislav Zagoda correctly described a commercial, fictional, and intellectual transi-tology in the case of Baretić’s novel *The Eighth Commissioner*. With the distance towards mere observation about banalities in literature, he simultaneously detected banalities in literary criticism. I could hardly add anything to this quote:

Therefore, the main components of a model for so-called ordinary readers in times of transition are: proclivity to undemanding reading, appetite for trivial literature, modest competence and knowledge, decoding of the meaning of literature by the reference to social reality, absolute dominance of synchronic over diachronic and material substance over spiritual, and usage of literature as therapeutic method with the aim to escape from the disappointing space of social reality. But, apparently the most provocative question about the interpretative community in times of transition is

⁴ <http://www.novolist.hr/Kultura/Knjizevnost/Robert-Perisic-Pisci-su-jedini-popusili-pricu-da-moraju-zivjeti-samo-od-trzista>, October 14, 2015.

⁵ Zagrebački Holding d.o.o. – a company owned by the City of Zagreb providing utility, traffic, energy and other services.

linked with reception of *The Eighth Commissioner* by competent readers, critics, and literary theoreticians, and evaluators. Hence, I believe that in the interpretative community in times of transition two types of readers merged, which points to an essential erasure of boundaries between high and low culture, and to the absolute domination of synchronic codes. Eventually, the academic community and a “group” around Perišić were sitting together at a literary bar sipping the (non)sense of refreshing, “readable”, and entertaining literature. (Zagoda 2009)

When literature is clear and easy to understand, its accessibility and marketing logic aestheticises the market and eventually de-aestheticises the literature. In reality, inherited structures used for the non-problematisation of a genre, chiefly the novel, are accepted and, as Rastko Močnik noted, a literary aesthetics that partially legitimises the fascistisation of a society⁶ (Močnik 1998–99, 89–90) is coming from the spoken ideology of the written literature. What does this mean in the Croatian context of the FAK? The most important paradox shows that, contrary to clear ideological and anti-fascist standpoints in the society, the literature is exposed to latent, apparently unimportant processes that undermine resistance to the slow fascistisation of the society. A minor literary device defining the base of realism testifies to this in the case of, for example, Perišić, Tomić, Pavičić, Baretić, etc., and the device is dialogue. Dialogue is, in fact, a transcription of speech, a written translation of oral discourse. Trauma gained its voice through the speech of literary characters. Orality/dialogue is a basic literary device for this literary group and probably a fundamental narrative stylisation; even if the group declaratively/phenotypically clearly distanced itself from the xenophobia on the genotypical level, we could notice an incursion of the oral culture that produced the same xenophobia. However, these themes are closer to those analysed by Georges Devereaux in his book *Basic Problems of Ethnopsychiatry*.

Because trauma is bounded with fixations and language is a site that supersedes the real by the systems of symbolisation referring to reality produced in the process of symbolisation itself, we have eventually forgotten its residue. What kinds of fixations are present in Croatian society? Very simply, as we said it before – national identity, and implicitly the relationship toward the Other. As Croatian culture and politics were trying unsuccessfully to construct themselves symbolically, and psychoanalysis taught us that symbolic overwrites the real (Fink 2009, 31), the suppressed sites are coming back in unbearable forms. For example, the magazine *Feral Tribune* used to publish many

⁶ “Spontaneous ideological reactions of mass groups, those who are the most afflicted by ‘transition’ to capitalism on the periphery, are expressed with popular and trivial schemes from the dominant culture. Mass existence of the dominant culture more and more becomes a quotidian fascism, with thousands of forms no one has yet described. Contrary to organised fascism encompassing a party, a fraction or a leading group, against which one could fight with a classic methodology, a quotidian fascism is protean, unexpected, often naive and ‘innocent’, and so to speak, coming straight from the heart. And, naturally, this is a reliable indication of the hegemony.” (Močnik 1998–99, 89–90)

articles about this issue. Ante Lešaja, in his book *Uništavanje Knjiga u Hrvatskoj 1990-ih* (The Destruction of Books in Croatia During the 1990s), documented this practice and Milan Šarac, in his review of the book, said: “The greatest irony of all book burnings is that all of them would finally end up in a book. Books always strike back.” The destruction of memory committed by the culture of forgetting is a reflection of the failed relationship with its own identity.

The situation is not any better in the literary scene or in literary criticism. For example, Velimir Visković dubbed the above-mentioned writers as neo-realists or new realists, in an attempt, similarly to Jagna Pogačnik, to detect and describe this neo- and new with a subject-thematic analysis, but those prefixes could not blur an obvious reality of the poetics. What should be written is a book describing the development of Croatian realism from 19th century until today, from the beginnings of this poetic to its deconstruction. FAK’s version of realism was divested of its grounding in literature – symbolisation, allegory, and connotation. We are facing the illusion of literature and the totalisation of the present, of today. As Baudrillard deprived the denotation of its role, and subsequently erased the real reducing it to simulation, the FAK group conceived the symbolic as a loss of the sign, but not of its value. If reality is simulated and constructed, what kind of referent could the realism of FAK account for, then? With the repetition of schemes developed in the blue jeans fiction, they are accepting them in the same, post-apocalyptic, and wartime context, and by that they accentuate the impotence of their own tautological poetics. The literary poetics of the FAK is a surplus. Since value surplus always designates a gain in the Other, the subject is caught in the constant process of producing surplus pleasure for the Other. Or, I would say – in the FAK-type of literary realism, there is too much realism, hence the abundance of neurotics in its novels and short stories. But that is another story.

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Double Standards: Corporate Media Ideologies and the Attack on a UN Convoy in Syria

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Abstract

Opinions about the reliability of news media have become largely dichotomised. The two major factions are those who embrace mainstream media and fundamentally trust them, and those who automatically reject mainstream news as propaganda. The aim of this study is to question and critique specifically the former view by pointing out the ideologically charged nature of mainstream news, while, at the same time, distancing itself from the latter extreme as well. The current system of news-making, it will be argued, essentially limits the presentable perspectives to those of the elite and the establishment, and breeds conformism. To demonstrate my points, I will analyse the coverage of the attack on the United Nations aid convoy in Urum al-Kubra on 19 September 2016. The analysis is limited to four major British news outlets. The focus will be on how the media subtly attach credibility to certain sources while discrediting or dismissing other, no less informative ones, based on the ideological favourability of what information they have to share. Discursive strategies of interest are foregrounding and backgrounding, the inclusion and exclusion of information, the embracing and questioning of sources, and the promoting and discrediting of views, etc. The main emphasis will be on the false impression of factuality and the unquestioning acceptance of otherwise highly questionable claims or allegations.

Key words: media studies, syria, ideology

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1 Introduction

When in May 2016 I was listening to an enlightening talk given by a refugee from Northwestern Syria, I realised how striking the difference was between his account and experiences of the events, and the way they were presented in the Western corporate news media. His introduction of a new perspective into the overwhelmingly homogeneous perception of the situation in the war in Syria was the first time I had become directly confronted with the existence of viewpoints divergent from the taken-for-granted ‘truths’ of the Western mainstream press. I had it as a first-hand experience of how difficult it is to construct an alternative point of view when the information available is constantly presented from one specific perspective, and with one specific agenda behind it. First and foremost, he refuses to call the conflict a civil war, a point of view which I also adopt, and instead considers it – boldly, yet appropriately – the destruction of Syria. As he argues, it can hardly be considered a civil war when there are fighters from over 80 foreign countries participating in or assisting the fights on the soil of a sovereign nation (Barrett 2014; Shiraz 2016) – not to mention numerous foreign governments arming and funding various warring factions, pursuing their own geopolitical, economic, or ideological agendas.

His talk initiated a desire in me to investigate the issue of the war in Syria and its media coverage, which eventually has born this study. The first section deals with the system of news production in general. Relying heavily on Herman and Chomsky’s (1988) ‘Propaganda Model’, it will be shown that potential news events have to pass several criteria or filters in order to become news in the first place. While the selection of news items is already an ideological process, the content that eventually does ‘make it’ to the news encounters additional filters, which further exclude alternative points of view or, indeed, whole events. Such a system of news-making, it will be argued, essentially limits the presentable perspectives to, by and large, those of the elite and the establishment, and breeds conformism. To demonstrate my points, in the second section I will analyse the corporate news coverage of the attack on a United Nations aid convoy in Urum al-Kubra on 19 September 2016. Due to spatial limitations, the focus will be specifically on British corporate news media coverage. Therefore, references to, observations about, or judgments of ‘corporate media’, ‘mass media’ or ‘Western media’ here are meant to be understood in the British context, even though it is assumed that the patterns, strategies, and ideologies discussed are, in this case, largely shared by European and North American corporate media in general as well.

It is important to emphasise that this study is not an investigation for the ‘truth’, nor does it aim at drawing comparisons between Western mainstream media and their adversarial counterparts. Although the object of investigation and critique is British corporate news, it is not intended to disregard, let alone deny, the applicability of the same criticisms to ‘enemy media’ as well. In addition, this critique does not aim at denigrating the work of journalists themselves. Instead, it asserts that the discrepancies pointed out

are largely systemic, and thus the perpetuation of these problems does not necessarily require more than simply acting within the confines of the system, even with the best of intentions and journalistic integrity. The overall aim is to critically analyse the attribution of credibility through various discursive strategies to ideologically favourable sources while discrediting unfavourable ones in the British mainstream press.

2 Beneath the Veil of ‘Freedom’

2.1 The Political Economy of News Media

Despite the apparent variety of different news outlets, each of which is eager to trumpet their independence and objectivity, it is essential to realise that the corporate media are devoid neither of owners nor of powerful external actors whose interests must be attended to (Chomsky 1989; Goodall, et al. 1994, 17-18; Herman and Chomsky 1988). As the designation ‘corporate media’ already suggests, they are owned by large private corporations – a fact whose consequences are rarely given sufficient thought when consuming news. These corporations are no different from regular businesses in the sense that their primary goal is to make a profit. Such profit orientation has a profound, multidirectional impact on the entire process of news production, from the selection of newsworthy items to the final article or report itself (Fowler 1991, 20-22; Lippmann 1922, 126-127; van Dijk 1988b, 120-121).

On the one hand, the operations of news media have to satisfy not only the owners and managers of the corporation itself but, more importantly, also those who provide financial, material, or other contributions, such as advertisers, banks, news agencies, and other sources of information (Herman and Chomsky 1988). As Freedman writes, when one considers the financial, ideological, and regulatory pressures newspapers have to face from “investors, shareholders and government itself, it becomes clear that [...] spaces for radical content are always going to be very fragile” in “a newspaper whose ultimate responsibility is to make a profit” (2014, 130). By shedding a negative light on the activities, products, services, or general operations of these partners, news outlets would risk significant – and permanent – financial losses. Thus, the project could easily end up in a downward spiral where budgetary constraints would lead to decreasing exposure, which, in turn, would result in further financial difficulties. Similarly, if journalists or reporters represent as questionable the validity and reliability of information provided by their regular sources, which they may well be and often are, those sources may perceive it as a threat to their reputation (Herman and Chomsky 1988, 22). As a consequence, newsmakers would have to rely on more costly and slower ways of accessing information, and/or on less established sources with less authority, whereby they would inevitably lose out on the market. Such pressures result in an effective self-censorship, where restrictions are implemented not so much by coercion as rather

out of fear of offending influential partners (Chomsky 1989, 48). Thus, newsmakers internalise the standards and develop a sense of what is likely to achieve success and appreciation, and what is not (van Dijk 1988b, 120), whereby ideology is concealed and becomes inseparable from perceived professionalism.

Corporate media systematically promote a Western elite perspective (van Dijk 1991, 33). The most common and well-regarded informants or interviewees in news reports are authority figures of some kind, such as officials, politicians, executives or managers, military leaders, the police, etc. Thus, news events “are already predefined by public authorities” whose “documents and information are taken [...] to be the definition of the news situation.” (van Dijk 1988b, 8) At the same time, their counterparts, such as demonstrators, activists, dissidents, strikers, etc., receive comparatively little, if any, publicity. Even when their voices are heard, they tend to be presented in a negative light and their statements are much more likely to be called into question or discredited, their concerns trivialised. In short, mainstream news is primarily both about and by the elite and authorities, whereby “the ‘common sense’ of the institutionalized status quo is ingrained in the discourse.” (Fowler 1991, 125) It, then, becomes clear that newsworthiness is not judged based primarily on relevance or usefulness for the public (van Dijk 1988b, 122). News items tend to be framed so as to allow only limited space and depth for criticism of the powers that be (Chomsky 1989, 10; *ibid.*, 75). Problems are usually presented as discrepancies within an otherwise well-functioning system rather than as discrepancies of the system *per se*, since primary informants have a vested interest in maintaining the status quo (Freedman 2014, 138). Therefore, mainstream media rarely challenge the pre-existing, dominant ideologies and stereotypes of a respective society (Lippmann 1922, 84-89), and largely operate as a platform where social hierarchies and inequalities of power are further reproduced (van Dijk 1988b, 87; 1993).

2.2 The Role of the Public

The apparent powerlessness of the public notwithstanding, the key to overcoming the manipulative effects of the system lies in the general population as much as in direct participants in the news-making process. What the political economy approach to news media criticism fails to emphasise is that the public is not merely a passive recipient (Freedman 2014, 117; *ibid.*, 123). Herman and Chomsky have little interest in what the population can do, except for a call for activism or direct action in their Conclusion and a brief, rather patronising remark on the detrimental consequences of a “passive, apathetic” population “diverted to consumerism or hatred of the vulnerable” in Chomsky’s later work (2016, 56). This is where the socio-cognitive approach of Lippmann (1922) and van Dijk (1988a; 1988b), among others, to public opinion and discourse, respectively, comes to complement the political economic critique. There is no doubt that in the current capitalist media structure the vast majority of the population is denied access to participation in public discourse (Freedman 2014, 132; van Dijk 1991, 37-38). Yet as long as the public continues to seek ideological confirmation and comfort in news,

misinformation, be it systematic or self-imposed, is inevitable in *any* system (Goodall, et al. 1994, 14). It is true that people, by nature, pay attention “to those facts which support [their system of stereotypes], and [are] diverted from those which contradict it” (Lippmann 1922, 88-89), whereby a stereotype “stamps itself upon the evidence in the very act of securing the evidence.” (ibid., 73) This is true especially when the established in-group ideologies and the perception of the Self and the Other are contradicted (Zima 1989, 349). Yet despite it being a natural human attitude, it can be overcome through awareness, conscious thought, and self-reflection. To be sure, these do not enable people to make objective judgments, but, more importantly, they lead to the treatment of one’s codes, views, and ways of perceiving reality in terms of ‘particularity’ rather than ‘universality’ (ibid., 56). It is therefore indispensable for the public, as well as journalists and reporters, to leave their comfort zones and be open to engage in controversial topics, and to become receptive to the validity of alternative narratives and points of view.

3 The Attack on a UN Aid Convoy in Syria: A Case Study

3.1 Scope and Approach

In order to demonstrate my points, I will look at British mainstream media articles available online which feature the case of the attack on a United Nations aid convoy in Urum al-Kubra and the diplomatic and investigative developments succeeding it. I have chosen this specific event for two major reasons: Firstly, the attack itself as well as the investigations following it have received extensive media attention, therefore sufficient material is available to make observations, to establish certain patterns, and to reflect with confidence. Secondly, the case has evoked elongated, and often heated, diplomatic discussions particularly between the United States and Russia, which allows for an analysis of mass media representation of the distinct parties within the framework of the same event. The analysis is limited to four major British news outlets: *BBC*, *The Daily Mail*, *The Independent*, and *The Guardian*, with occasional references to the *Reuters* news agency, on which these news organisations heavily rely for information. Thus, the observations made and the conclusions drawn are not restricted to a single news outlet, nor to a particular political leaning, but are demonstrated to be applicable to corporate media at large, regardless of political stance.

The primary concern of this paper is an ideological analysis of news articles. I adopt a critical discourse analytic approach in order to reflect on discursive strategies that implicate ideological bias, without making judgments as to the intentionality of their application. This study is primarily concerned with the critique of the systemic and structural aspects of news-making. Therefore, there is little space dedicated to close textual analysis, even though it is acknowledged that such an approach does provide additional, more

detailed and, in fact, indispensable insight into the workings of news discourse. Through the example of the aid convoy attack, I intend to demonstrate the ideological influences of the corporate media system, examined in the previous chapter, on the product and, consequently, on the reader. The overall purpose is not so much to complement the articles in question with facts, but rather to reflect on and critique the double standards the mainstream news media apply towards in-group and out-group members, as well as ideologically favourable and unfavourable informants and information.

3.2 The Case

In the evening hours of 19 September 2016, a United Nations humanitarian aid convoy was attacked while unloading at the Syrian Arab Red Crescent warehouse in Urum al-Kubra. In the attack over a dozen people were reportedly killed and 18 of the 31 trucks carrying humanitarian supply were destroyed. According to witnesses, the assault was continuous and lasted for several hours (Chulov and Shaheen 2016). The events resulted in an aggressive finger-pointing mostly between the United States and Russia, who was immediately blamed for the attack. News outlets, which, as of late, show a remarkable obsession with Russia and the U.S. vs. Russia chess game of negotiations, have paid extensive coverage to the occurrences, the aftermath, and the investigations. As it will be demonstrated, Western corporate media have exploited the tragedy in a propagandistic manner by embracing and unquestioningly reinforcing the ideologically favourable narrative, with little factual basis backed up by investigations and evidence.

3.3 Replacing Evidence with Blind Trust

The day following the incident, the Pentagon already claimed to know that the attack was a Russian airstrike, and the press unquestioningly embraced the U.S. American narrative. The accusation is based solely on the eye witness accounts of two unnamed U.S. officials in a private interview with *Reuters*, saying that two Russian Sukhoi SU-24 jets were seen at the time of the attack (Stewart and Dalglish 2016). Yet in no mainstream news article is the reliability of those officials and their ‘evidence’ questioned. Instead of pointing out the scarcity of proof, the articles covering the event reinforce the credibility of the accusation by featuring it in headlines such as “Russian planes dropped bombs that destroyed UN aid convoy, US officials say” (Borger and Ackerman 2016a); “US claims Russian warplanes bombed Syrian Arab Red Crescent aid convoy and warehouse” (Walker and McKernan 2016); or “Top US officer: Russia bombed Syria humanitarian aid convoy”¹ (Robinson and Newton 2016). While the allegation being elevated to a headline position implies certainty, even the ‘top US officer’ referred to and quoted, General Dunford, starts his official report by saying that “I don’t have the facts.” (22 September 2016, Report, 43) All they know, he says, is what they have heard from

¹ The headline has since been changed, but the original one is still retained in the URL.

the two anonymous eye witnesses, yet he asserts to have “no doubt in my mind that the Russians are responsible.” (ibid.) While his admission to being unable to support his suspicion with facts, is not mentioned in any of the articles, his having ‘no doubt’ is quoted and embraced in all of them. The omission of the disclaimer is particularly consequential because General Dunford’s ‘unknowing of facts’ is the exact opposite of what is expected of him. As a military general, his words have additional weight and authority. Therefore, the public is very likely to read his claims with the presumption that he, as a high-ranking officer, does base his conclusions on some evidence and facts. Consequently, the articles endow the highly questionable U.S. American claims of a definitive Russian airstrike with an unreasonably high truth value.

On the other hand, Western media apply a ‘guilty until proven innocent’ approach, where Russia and Syria are expected to disprove whatever the West accuses them of – regardless of whether there is any evidence to support these accusations to begin with. Russia is repeatedly discredited as only making “sensational claims” and defying rational accusations by the West “despite evidence that its own forces may have been responsible” (Dearden 2016), which, in reality, does not exist. Note the contradictory use of “evidence”, which implies absolute certainty, and “may”, which marks possibility. What the sentence actually says, in an upside-down manner, is that Russian involvement cannot be excluded nor proved; in short, no one knows what truly happened. According to *The Independent*, Russians carry out only a “supposed analysis” (ibid.), and “float several alternative scenarios, which were dismissed by experts” (ibid.). Indeed, Russian responsibility of the attack is presented to be so self-evident that the US has “swiftly” (ibid.) arrived at the conclusion Russia was responsible, and counter-arguments have been, again, “swiftly rejected” (ibid.) by experts. It is, however, not once mentioned, let alone questioned, who those experts actually are and what evidence enables them to arrive at such ‘swift’ conclusions, apart from a self-imposed sense of infallibility, because none has been provided to the public. The only ‘argument’ is that Russia’s theories “[seek] to implicate the Nobel Prize-nominated White Helmets group of rescue volunteers” (ibid.), which can hardly be considered a refutation. The possibility is rejected not by providing evidence, or at least a rational argument, but by suggesting that the White Helmets would never participate in misinformation as nominees for the Nobel Peace Prize – a piece of information which is absolutely irrelevant in this context but seeks to further reinforce the credibility of the group. It must be emphasised, however, that the problem is not the critical attitude towards Russian or Syrian claims but that no such approach is adopted when tackling the claims of ‘our’ informants.

3.4 Marginalising Dissent

While the ideologically favourable narrative is consistently foregrounded and reinforced, its actual fragility receives but marginal attention. The day after the attack, the United Nations issued a statement through spokesman Jens Laerke saying: “We are not in a position to determine whether these were in fact airstrikes. We are in a position to say

that the convoy was attacked.” (Borger and Ackerman 2016b) That is, while the U.S. confidently accuses Russia of having committed an airstrike – and the media follow suit, the UN states that there is no evidence that the attack was an airstrike to begin with, let alone a Russian one. Ironically, this clarification, which reveals that the U.S. American claims are fundamentally unfounded, is quoted under all of the aforementioned headlines by *The Guardian*, *The Independent*, or *The Daily Mail*. In short, these news outlets elevate to a prominent – headline – position a claim that is shown, in the very same articles, to have no factual basis whatsoever. Nevertheless, none of the articles allows Laerke’s statement to break the overall impression of definite Russian guilt. He receives, besides the quotation itself, only one introductory sentence by *The Guardian* and two sentences, with the same content, by *The Daily Mail*, for instance. Amidst the flood of empty accusations and assumptions, the reader inevitably loses sight of the one piece of information which puts the story into perspective.

Also, on 5 October 2016, the United Nations released the findings of an internal investigation of the attack. Lars Bromley, a UN Operational Satellite Application Programme (UNOSAT) research adviser, is quoted by all major news organisations as saying: “With our analysis we determined it was an air strike and I think multiple other sources have said that as well.” (BBC 2016; Dearden 2016; Nebhay 2016) However, Bromley immediately contradicts his own statement by saying that the damage was caused “*almost certainly* [by] airdropped munitions” [my emphasis] (Nebhay 2016); that is, nothing has, in fact, been “determined”. Significantly, his latter statement is quoted in none of the news articles, except for the one by *Reuters*. After Bromley’s assertion of definitive conclusions, however, another UNOSAT official, Einar Bjorgo, goes to correct him in an interview with *Reuters* saying that the “observations of the imagery show *indications* of it *possibly* being an air strike, [so] we *believe* it *may* be air strikes, but it’s not conclusive.” [my emphases] (Nebhay 2016) Note the abundance of words, in italics, expressing uncertainty, rendering the sentence barely meaningful anymore. In this case, there are two ‘equals’ as contesting sources. Nevertheless, the articles covering the report, without exception, appear with headlines similar to the BBC’s “Syria conflict: Aid convoy attack was air strike, UN expert says”, or *Reuters*’ “Aleppo aid convoy hit by air strike: U.N. expert”. Thus, Bromley’s claim is unambiguously embraced despite clear knowledge that it is false: With the exception of *The Independent*, which omits Bjorgo’s statements entirely, both Bromley and Bjorgo are directly quoted in the articles by the BBC, *The Guardian*, *The Daily Mail*, or *Reuters*, for instance. Also, note that Bjorgo, unlike Bromley, is not referred to as an expert, which falsely indicates a professional hierarchy between the two. The emphasis and insistence on Bromley’s claim provides a faux impression of closure, confirmation, and comfort that the favourable narrative has been the correct one all along, while, in fact, there have been no new developments and no more is known than before – a condition which is, admittedly, much less attractive to report than the illusion of knowledge, truthfulness aside.

3.5 The Requirements of Expertise

Although there are numerous references to experts, who reportedly refute or dismiss certain claims while confirming others, there is very little discussion about who they actually are and why they are considered experts in the first place. Even if these individuals or organisations are named, there are rarely any details or explanations given as to their expertise, professional background, or potential limitations. Interestingly, it is regularly pointed out that these organisations are not Syria-based, still there is not a single remark even implying the possibility that this factor may have negative consequences. For instance, one of the most prominent analysts and sources of information on the Syrian conflict, the Syrian Observatory for Human Rights (SOHR), despite its organisational-sounding name, is essentially one person, Rami Abdulrahman, reporting from his apartment in Coventry (Abbas 2011). He is admittedly pro-regime-change in Syria (*ibid.*), and, despite claiming to be unaffiliated with political bodies, receives funding from the British Foreign Office (*Media Lens* 2018). The previously mentioned White Helmets are funded by numerous Western governments as well as the Gulf monarchies, such as Qatar (Beeley 2017, *21st Century Wire* 2016; 2017), work closely and exclusively with, and are often members of, ‘rebel’ groups, most notably al-Nusra Front, the Syrian branch of al-Qaeda (Bartlett 2018; Beeley 2017; Le Corf 2017), and have repeatedly been caught manipulating or manufacturing evidence (Bartlett 2018; Beeley 2018). Bellingcat, a UK-based open data analysis organisation, admittedly relies on “news agency pictures and pictures taken by rescue workers” (McKernan 2016), predominantly the aforementioned White Helmets. Lastly, UNOSAT “reviews only *commercially available* satellite images.” [my emphasis] (Nebehay 2016) Nevertheless, the seemingly obvious question is not once asked: How reliable can they be when they clearly take sides in the conflict, rely on that side for financial, material, and ideological support and only have access to a fraction of the data ‘out there’, and even those are second-hand data at best, coming from organisations with a clear agenda of their own?

Discussions about the attack were revived when Bellingcat managed to “match debris [on site] to Russian-manufactured munitions” (McKernan 2016), namely the remnants of an OFAB 250-270 fragmentation bomb. Critiques, however, countered by “pointing out that the debris might not necessarily date from the aid convoy attack, or been [*sic*] planted there, or that the pictures are fake.” (*ibid.*) While the news media at large dismiss these as nothing more than “absurd” suppositions or conspiracy theories “typical of pro-Kremlin social media commentators” (*ibid.*) – which is expected to serve the purpose of a refutation – they have, in fact, very real substance. First of all, Bellingcat can never be certain about authenticity when working with second- or third-hand material. In fact, it was Bellingcat itself who had ‘proved’ that Russia had manipulated the released satellite images of the Malaysia Airlines case in Ukraine, so they must be familiar with the potential dangers of relying on mediated data. Secondly, as the photographs analysed had not been taken immediately after the attack (the attack took place at night, while the photographs were taken in broad daylight), it is impossible to tell for certain

whether or not the remnants had indeed been planted there subsequently. Moreover, as mentioned before, the rescue workers, who provided the photographs and recordings, are financially and ideologically tied to the West, and do have a history of staging, falsifying, or eliminating evidence. Bellingcat makes hasty conclusions by singling out one item that confirms the dominant, desirable theory, while dismissing the environment and other indicators, which happen to contradict the promoted story.

What is striking in the news coverage of Bellingcat's analyses is that the reliability of the organisation is never questioned. Regardless of how much *The Independent* compliments Bellingcat as "self-taught open data experts and citizen journalists" (McKernan 2016), they have no more professional background than their counterparts discredited as "social media commentators" and "bloggers" (ibid.) – a term that has been applied to Bellingcat by professional experts (Bidder 2015). For instance, in relation to their supposed proof of Russian manipulation of satellite images, German forensic expert Jens Kriese expressed criticism in an interview with *Der Spiegel*, saying that the method Bellingcat had used (Error Level Analysis) is necessarily "subjective and not based entirely on science", "is a method used by hobbyists", and "doesn't prove anything." (ibid.) Even the creator of the tool the organisation used, Neal Krawetz, distanced himself from Bellingcat's claims and remarked that it was an excellent example of "how to not do image analysis." (ibid.) Despite an apparent lack of competence and of a professional scientific approach, however, the group is still introduced as "well regarded for their work" (McKernan 2016); their trustworthiness and reliability are taken for granted and they remain a prominent source of analyses concerning the Syrian conflict. In short, knowledgeability and expertise are determined not based on professionalism but based on affiliations – the prerequisite for being considered an expert is the confirmation of the ideologically useful narrative (Herman and Chomsky 1988, 23).

4 Conclusion

As this paper has sought to demonstrate, the keyword here is *illusion*. As opposed to centralised media, corporate media manage to maintain the *illusion* of independence and the *illusion* of objectivity and factuality. This is exactly why it is much more difficult to recognise ideologies or bias in corporate news – they work in a significantly more subtle way and thus usually pass unnoticed. Instead of explicitly telling the audience *what* to think, such a system rather aims at influencing *how* the public will think, and about which issues. (van Dijk 1988a, 208) Thus, the reader will likely arrive at the 'desired conclusion' by their own 'free' thinking, either unaware of or unconcerned by the ideologies and agendas hidden behind the façade of the 'free press'. As seen from the examples, the key to the success of news discourse in directing public views and thinking is unconditional trust and uncritical reading. Therefore, it is necessary to adopt a critical approach to news consumption, regardless of where it comes from,

in order to resist the manipulative influence of biased, ideologically charged, and often misinformed or uninformed news content.

It is, therefore, indispensable for both the reader and the reporter or journalist to acknowledge that one “is only a small part of the world, that [one’s] intelligence catches at best only phases and aspects in a coarse net of ideas” (Lippmann 1922, 68), and to act accordingly. It is only then that “when we use our stereotypes, we tend to know that they are only stereotypes, to hold them lightly, to modify them gladly.” (ibid.) Such awareness and openness for self-correction is the essence of intellectual growth and cultural learning. Moreover, the prerequisite for a propaganda system to remain effective is that the vast majority of the population, for whatever reason, cling to the comfort of conformism. The media essentially count on what Lippmann, Bernays, and others call the ‘herd mentality’ of the population, (Bernays 1928; Fowler 1991, 232; Lippmann 1922) and on public “consent to domination” (Wetherell and Potter 1992, 85). It follows that, in a truly democratic society, the effectiveness of manipulation is undermined as soon as the public engages in critical reading and thinking (Fowler 1991, 232). The solution lies in the exposure to alternative, dissenting, and often contradicting perspectives. They provide additional aspects of and insights into the issues in question. It is important for the public not to adopt the ‘competition narrative’ of media organisations, which encourages an either/or view. On the contrary, various sources of news need to be seen in terms of mutual complementation, where exposure to as many distinct points of view as possible is encouraged instead of the rejection of all but one’s own.

In order to avoid implying that all the burden, not to mention blame, is on the public, however, I would like to end with a note to intellectuals in general, and journalists in particular. In many respects, the current distrust in the media and in the so-called ‘liberal’ intellectuals is a result of their failure to connect with the public. Yet the very same people and organisations responsible for this alienation, instead of engaging in self-examination, blame their losses on the victims: the public. Dominant ‘liberal’ voices, be they the media, politicians, entertainers, or commentators, have embraced a form of patronising, holier-than-thou attitude towards the population. Most worrying of all, perhaps, is that they have adopted the approach – traditionally associated with, though certainly not limited to, the right-wing – of throwing in unsubstantiated claims with no evidence and argumentation, hoping that constant repetition would eventually suffice. Mainstream news reporters and journalists have become so far detached from the public, so unaccustomed to debates that they are often unable to handle a situation when they are questioned or simply have to explain themselves. It is, however, indispensable for intellectuals to be able to engage in and deal with situations where not everyone is only nodding in agreement and acceptance. They need to re-connect with the public through discussion and debate, and to serve a truly informational and educational purpose, while themselves being open for learning and self-correction. The purpose of news-making and journalism should not be to serve the establishment, thus reproducing the existing power structures, nor to provide comfort. Instead, it should ideally

be the exact opposite: To raise questions, to also reflect on systemic shortcomings, to investigate, and to question authorities and the establishment, whether or not they are ‘our’ own and regardless of how discomforting the revelations may be – a task which, as demonstrated in this paper, corporate news media have utterly failed to fulfil.

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Phänomen Neurobiologie der Sprache

Hans Schachl*

Abstract

From phylogeny to ontogeny arises the complex phenomenon of language. This paper aims to illustrate this complexity of language by describing the functions and areas of the brain responsible for listening, speaking, and reading, followed by an exploration of the interaction of emotion and cognition. Furthermore, the paper briefly addresses the special fascination of children's language development as well as the relationship between music and language and the positive effects of music on language development. Additionally, the paper touches upon the topic of "reading" in an application-oriented manner.

Key words: language, evolution, neurobiology, understanding and speaking, reading, memory, development

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1 Die Evolution der Sprache

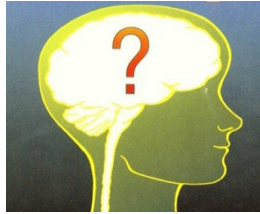


Abbildung 1: Schachl 2012, Titelblatt

Das Streben nach Erkenntnis trieb und treibt uns voran. Das gilt natürlich auch für das Phänomen Sprache. In der Hirnforschung müssen wir insgesamt aber bescheiden sein: „Wenn das Gehirn des Menschen so einfach wäre, dass wir es verstehen könnten, dann wären wir so dumm, dass wir es doch nicht verstehen würden“. (Gaarder 1996, 392)

Am Anfang der Sprachentwicklung stand und steht die Kommunikation, und zwar sowohl in der evolutionären als auch in der individuellen Entwicklung.

„Im Anfang war die Tat“ schreibt Goethe im *Faust* (Goethe 1808, 80-81). Das bedeutet, dass der Druck zur Erfindung der Kommunikation wahrscheinlich aus der Notwendigkeit, sich über die „Tat“ (die Jagd, die Planung des täglichen Lebens etc.) auszutauschen erfolgte! Einen guten Einblick in die Evolution der Sprache, besonders auch bezüglich der Unterschiede zwischen der Kommunikationsfähigkeit von Primaten und Menschen, und auch in die kindliche Entwicklung gibt das Video „Language and the Human Brain“ von Elman (2008). Siehe auch das Video: CARTA „How Language Evolves: Language in the Brain“.

Menschen mit eingeschränkter sprachlicher Kommunikation kann durch die sogenannte „unterstützte Kommunikation“ geholfen werden. Dabei wird auf „ursprüngliche“ Formen zurückgegriffen: Mimik, Gestik, Blickrichtung, Gebärden, aber auch technische Hilfsmittel, wie Symbole für Buchstaben in einer Tablet-Kommunikations-App, kommen erfolgreich zum Einsatz (Hobel 2017).

Die Entwicklung der menschlichen Sprache bedurfte einer Weiterentwicklung der schon bei den Primaten vorhandenen Sprachzentren, der Umgestaltung des Kehlkopfes und vor allem einer Vergrößerung des Frontalhirns, sowie auch einer Vermehrung der Nervenzellen mit komplexer Vernetzung. Aber die Areale für das Sprechen, Zuhören und Verstehen, oder gar für das Lesen, sind nicht von Anfang spezialisiert für die Sprache entwickelt worden. Die Sprachnetzwerke entwickelten sich aus den evolutionär angelegten Grundfunktionen der Wahrnehmung, die durch die sprachspezifischen Inputs genützt und modifiziert werden (Schlaggar und McCandliss 2007, 494). Die wesentlichen Prozesse finden in den sensiblen Phasen statt und führen zur Komplexität

der Sprache. Unter „Sensiblen Phasen“ versteht man Zeiträume in der Hirnentwicklung, in denen die Nervennetze besonders leicht durch Erfahrung ausgebaut und auch verändert werden können. Die Sensiblen Phasen sind für unterschiedliche Funktionen unterschiedlich lang: Im sogenannten „Drei-Phasen-Modell“ (Bardin 2013, 55) wird die Entwicklung der Lernfähigkeit des Gehirns in „überlappenden Wellen“ beschrieben: Die Areale für die Sinne öffnen sich im Säuglingsalter und schließen sich gegen Ende der frühen Kindheit (Vorschulzeit, erste Grundschulzeit); die Sensiblen Phasen für die Sprache und andere höhere Leistungen beginnen später und dauern auch länger. Eine gewisse Plastizität bleibt das ganze Leben lang, wird jedoch mit zunehmendem Alter deutlich schwächer.

2 Die Komplexität der Sprache

Dazu zunächst ein ganz schneller Überblick:

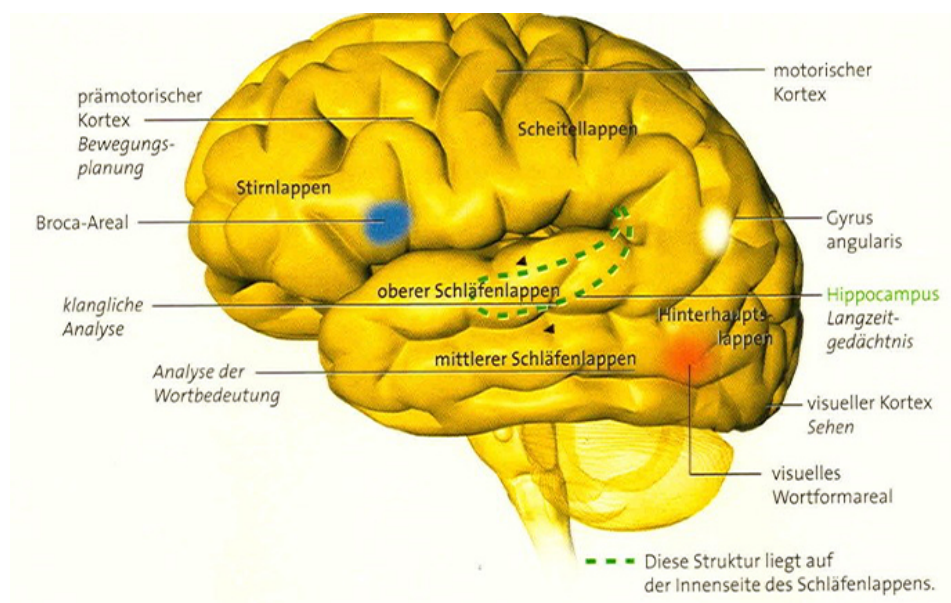


Abbildung 2: Reiter 2014, 64

Zum Auswählen, Vergleichen, Bewerten, für die Grammatik, das Sinnerfassende Hören und Lesen sind folgende visuelle und auditorische Areale notwendig: das visuelle Wortform-Areal; die Schläfenlappen-Areale; das Broca-Areal und das Frontalhirn. Das Frontalhirn kooperiert mit dem Langzeitgedächtnis im Cortex (Wortschatz, Semantik). Wichtig ist auch das Kleinhirn. Hippocampus und Präfrontaler Cortex sind wichtige Arbeitsspeicher.

Das Limbische System (in der ‚Tiefe‘ des Gehirns) steuert die Emotionen bei. Auch das Aufmerksamkeitssystem ist involviert. Für das Lesen und Sprechen ist auch die Mo-

torik der Augenbewegungen und der Gesichts- und Halsmuskulatur notwendig. Der Gyrus angularis ist als Assoziationsareal von Bedeutung. Nun etwas detaillierter:

Nun etwas detaillierter:

3 Die Vorgänge beim Zuhören und Sprechen

Das „linguistic decoding“ (Gehirn&Geist SPEZIAL 2011, 68; Max-Planck-Gesellschaft 2015b, n.p.) erfordert beim Zuhören: die Aufnahme der Schallwellen im Auditorischen Cortex (im oberen Schläfenlappen) und das Entschlüsseln der Phoneme und Silben. Schon dieser erste Analyse-Prozess der grundlegenden „features“ (Chang 2015) ist komplex. Für diese ersten Stufen der Sprach-Segmentation werden „neurale Oszillationen“ (Delta/Theta/Gamma-Wellen) im Auditorischen Cortex angenommen (Giraud 2017). In der weiteren Verarbeitung kommt es zur Einbeziehung anderer Hirnregionen zur Entschlüsselung von Bedeutung, Emotionen, Tonfall, Rhythmus: In der Amygdala (als Teil des Limbischen Systems) werden die Emotionen erzeugt und die eigene emotionale Reaktion eingeleitet. 250-350 ms nach dem Sprechbeginn werden Struktur und Bedeutung der Worte entschlüsselt, und zwar zunächst im Wernicke-Areal in der linken Hirnhälfte; dann extrahieren der vordere Schläfenlappen und der vordere frontale Cortex in beiden Hirnhälften die Bedeutung der Worte. Um die Bedeutung bewusst zu erfassen, müssen die Wörter mit dem Gedächtnis assoziiert werden. Das passiert in einem Teil des Frontallappens (Arbeitsgedächtnis); das Gedächtnis selbst ist allerdings in vielen Teilen des Gehirns zu finden.

Ähnliche Prozesse gibt es beim Sprechen: Das Verstehen gesprochener Wörter erfordert einen kontinuierlichen Prozess der Aktivierung lexikalischer und semantischer Funktionen, bis es zur eindeutigen Erkennung eines Wortes kommt.

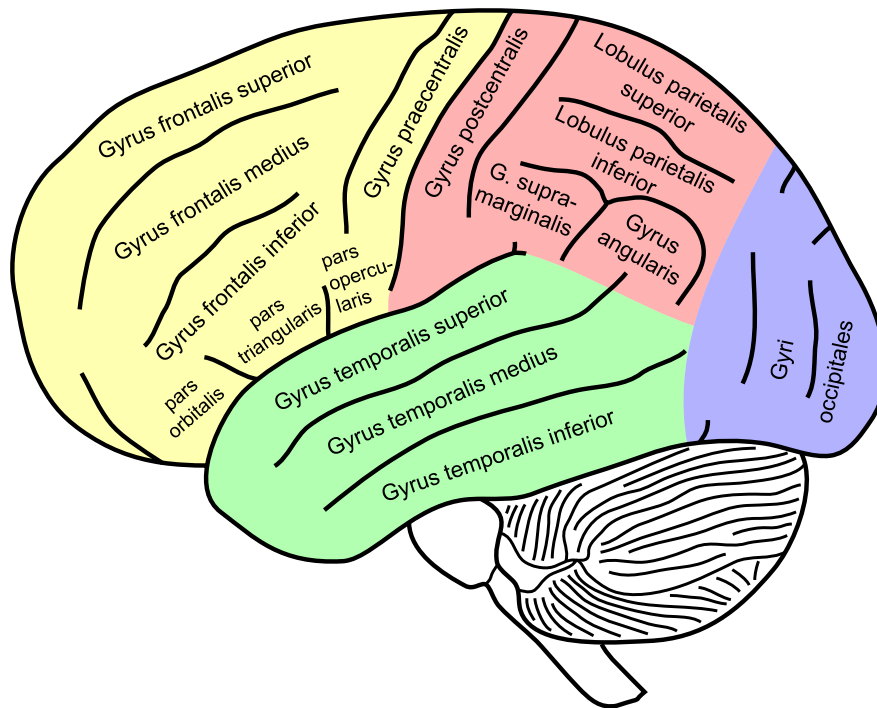


Abbildung 3: https://ca.wikipedia.org/wiki/Circumvoluc%C3%B3_frontal_inferior

Dieser komplexe Prozess bis zum bewussten Erkennen dauert 400 bis 500 ms und umfasst Bereiche vor allem im Gyrus temporalis und im Gyrus frontalis sowie im Gyrus angularis (Kocagoncu et al. 2017). Der linke Gyrus temporal superior hat auch eine spezielle Rolle beim Lesen durch die Integration orthographischer und phonologischer Prozesse (Schlaggar und McCandliss 2007, 480), der Gyrus temporalis medius ist gemeinsam mit den Frontalhirnregionen involviert in die Erkennung der Semantik (Fedorenko 2015).

Die Regionen um die Sylvische Furche (zwischen Schläfen- und Stirnlappen) herum (Perisylvischer Cortex) ist auf dem Weg zum Frontallappen (linker Gyrus frontalis inferior) für das „tuning“ von „low level speech features“ (voice onset time, Phoneme, Silben, Wortgrenzen) zuständig (Berezutskaya et al. 2017). Für die Konstruktion einer hierarchischen linguistischen Struktur (Wörter, Phrasen, Sätze) müssen hierarchische neurale Prozesse stattfinden, die „grammar-based“ gesteuert werden (Ding et al. 2016; Heer et al. 2017).

4 Das Visuelle Wortform-Areal (VWFA)

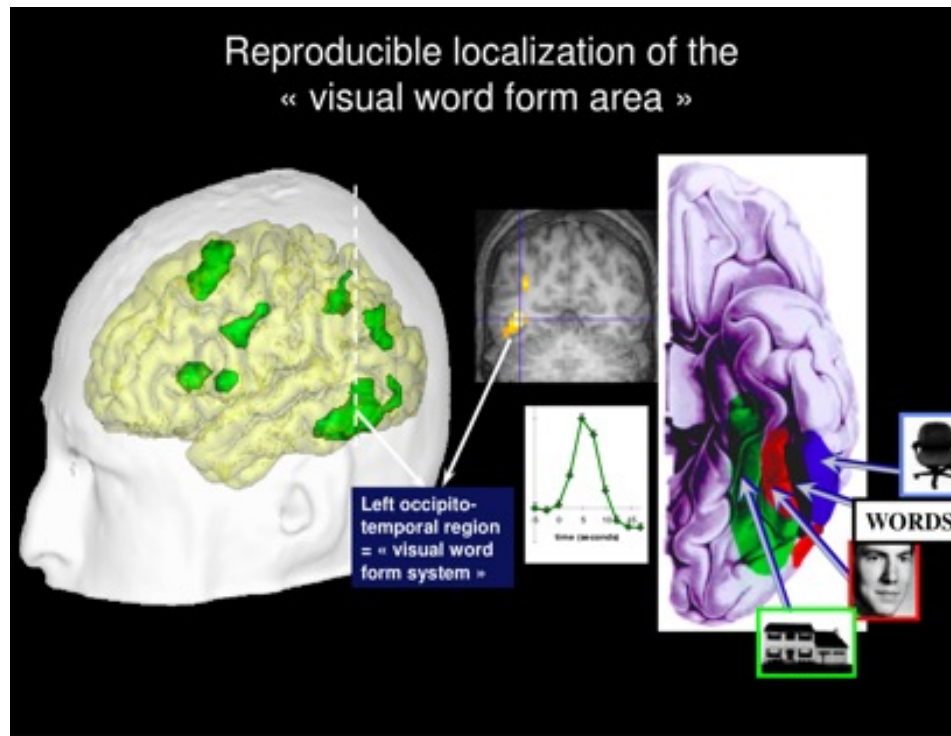


Abbildung 4: Dehaene 2008, <http://www.dyslexia-international.org/neuroscience>

Dieses Hirnareal befindet sich gleich in der Nähe des primären visuellen Zentrums. Das VWFA wird beim Lesen aktiviert. Es identifiziert die Form von Buchstabenketten; es ist ganz auf geschriebene Wörter spezialisiert, bei reinen Linien-Zeichnungen oder gesprochenen Wörtern bleibt es stumm (Wolf C. 2010, 16; Dehaene und Cohen 2011).

Das VWFA ist umgeben von den Feldern für Objekte und Gesichter. Eine derart ‚junge‘ Funktion wie das Lesen (Erfindung der Schrift vor 5000 Jahren) kann nicht evolutionär angelegt sein. Auf der Basis dieser Überlegung formulierten Dehaene und Cohen (2011) die „neuronal recycling“-Hypothese: „Reading acquisition partially recycles a cortical territory evolved for object and face recognition, the prior properties of which influenced the form of writing systems“ (254).

Die Evolution dürfte also die visuelle Basis für die Schriftentwicklung bereitgestellt haben, als ganz allgemein zuständig für das Erkennen von Objekten und Formen („pre-existing cortical systems“ for „extracting configurations of object contours“ nach Dehaene und Cohen 2011, 254). Dazu passt auch, dass das VWFA bei allen Menschen an der gleichen Stelle ist, ganz gleich, ob wir Englisch, Chinesisch, Deutsch, etc. lesen (Dehaene und Cohen 2011, 256). Eine gute Erklärung der Hirnprozesse beim Lesen gibt Dehaene (2013) im Video „Reading the Brain“.

Diese „Neuroplastizität“ (Veränderbarkeit) durch Aktivität zeigt sich ganz besonders darin, dass das VWFA auch von anderen Sinnesreizen benützt werden kann: Das Lesen blinder Menschen mit dem Braille-System (also über taktile Reize) aktiviert das VWFA ebenfalls, das heißt, „it may possess a general capacity for identifying shapes“ (Dehaene und Cohen 2011, 260). Ein ganz interessanter Befund ist allerdings: Bei von Geburt an blinden Personen zeigte das VWFA Reaktionen auf mit Braille geschriebene Wörter und auch auf die grammatikalische Verarbeitung gesprochener Sprache; ersteres natürlich auch bei Sehenden, aber zweiteres nicht (Kim et al. 2017).

Beeindruckend ist die Neuroplastizität bei Kindern, die durch eine prä- oder perinatale Schädigung von Geburt an taub sind. Ihr Auditorischer Cortex wird nicht durch auditorische Elemente erregt, sondern durch visuelle. Siehe dazu auch das Video von Stiles (2008) „Brain Development“ und auch das Video von Elman (2008) „Language and the Human Brain“ ab Minute 26:00.

Das VWFA entwickelt sich funktionell für das Lesen durch das Lesen: Die Aktivität des VWFA korreliert linear mit der Lese-Performance (Dehaene und Cohen 2011, 258; Saygin et al. 2016; Schlaggar und McCandliss 2007, 480). Diese Spezifität für das Lesen zeigt sich zum Beispiel auch durch eine besondere elektrische Aktivität, ein ERP (Event-Related Potential), und zwar durch die „N170“-Welle, die 170 ms nach der Präsentation des Lesereizes im linken „ventral occipito-temporalen“ Bereich (inklusive VWFA) ausgelöst wird. Diese lese-spezifische Welle muss sich aber erst vom Erstlesen zum Erwachsenen entwickeln (Schlaggar und McCandliss 2007, 485). Das VWFA ist nicht nur „bottom up“ für die Encodierung von Buchstabenketten tätig, sondern wird auch „top down“ (Aufmerksamkeit, Semantik, Gedächtnis, Gefühle) beeinflusst (Schlaggar und McCandliss 2007, 480). Dieses Zusammenspiel von ‚bottom up‘ und ‚top down‘ ist ein allgemeines Prinzip der Wahrnehmung.

5 Kognition und Emotion



Abbildung 5: Schachl (2012, 19)

Eine Trennung von ratio und emotio, von Verstand und Gefühl, ist hirnbilologisch nicht nachvollziehbar. Es wohnen nicht „zwei Seelen in meiner Brust“, wie es in Goethes Faust (1808, 73) heißt (siehe Cartoon, Abbildung 5). „Gefühle haben einen starken Einfluss auf Lern- und Gedächtnisleistungen“ (Roth 2011, 180). Die Art der Wechselwirkung zwischen Gefühlen und Verstand ist ein wesentliches Merkmal der Persönlichkeit des Menschen (Roth 2011, 42).

Wie wirken Verstand und Gefühle zusammen?

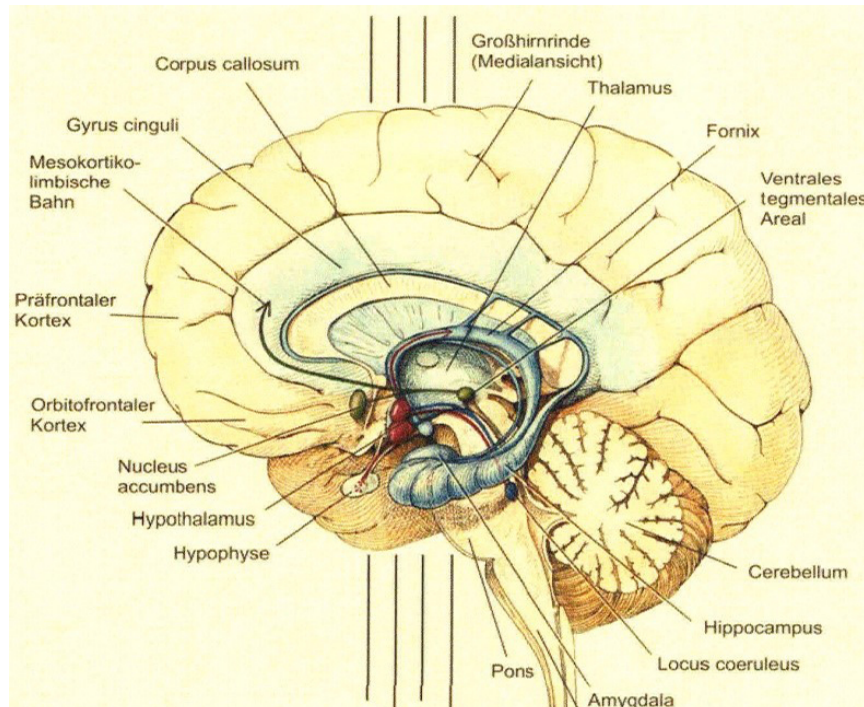


Abbildung 6: Förstl, Hautzinger, Roth 2006, 5

Das Zusammenwirken von Gefühl und Verstand kann hier nicht detailliert beschrieben werden, daher wird auf die zusammenfassende Theorie über „den Sitz und die Physiologie der Seele“ (besser: der Psyche) von Roth und Strüber (2015) verwiesen: Die Netzwerke für die Psyche werden als Limbisches System zusammengefasst. Roth-Strüber (2015, 63-64) unterscheiden drei „limbische Ebenen“ (eine untere, mittlere, obere), der noch eine „kognitiv-sprachliche“ Ebene gegenübersteht. Sie werden als die „Vier Ebenen der Persönlichkeit“ bezeichnet. Die Aktivitäten (vegetative Körperfunktionen, Emotionen) der unteren (mit Hypothalamus, Amygdala, u. a.) und mittleren (mit Basolateraler Amygdala, Nucleus accumbens, Ventral Tegmentalem Areal, Thalamus, Hippocampus u. a.) limbischen Ebene sind unbewusst. Auf bewusster Ebene bildet die obere limbische Ebene das „individuelle-soziale Ich“ und die kognitive Ebene das „kognitiv-kommunikative Ich“. Die obere limbische Ebene ist für „Verhaltensplanung“ mit dem Ziel der „Bewertung“, ob die geplanten Handlungen positive oder negative Konsequenzen haben werden, zuständig. Hier finden sich wichtige Integrationszentren zwischen Basis-Emotionen und Kognition. Bei Schädigungen im Orbitofrontalen und Präfrontalen Cortex kommt es zum Verlust der emotionalen Kontrolle und damit des angemessenen Sozialverhaltens.

Die „kognitiv-sprachliche“ Ebene mit dem Dorsolateralen Präfrontalen Cortex, dem Ventrolateralen Präfrontalen Cortex, dem Broca-Sprachzentrum, u. a. (Roth-Strüber, 2015, 87-91) hat als Aufgaben die Planung und Vorbereitung von Handlungen, das Problemlösen, Erinnern, Vorstellen, Denken, die Koordination, etc. Zusammenfassend lässt sich folgendes sagen: Die Areale der Kognition (Hippocampus, Frontal Cortex, etc.) werden stark beeinflusst von den Arealen der Emotion (Limbisches System mit Amygdala, Belohnungssystem mit Nucleus accumbens und Ventral Tegmentalem Areal, Hypothalamus, etc.).

Das hat für Lehren und Lernen eine ganz wesentliche Konsequenz: Gefühle sind nicht nur subjektive Erfahrungen, sondern auch für kognitive Leistungen notwendig.

6 Kurz- und Langzeitgedächtnis

Das Frontalhirn muss bei der Sprache vieles tun: Auswählen hinsichtlich Bedeutung, Vergleichen, Bewerten, eben ‚Nachdenken‘, Philosophieren, etc.! Dieser Teil des Gehirns ist maßgeblich dafür verantwortlich, dass aus Buchstaben, Lauten, etc. Gedanken werden. Da bei der Wahrnehmung von Sprache (Hören, Lesen) ja nicht nur einzelne Wörter erkannt werden müssen, sondern ganze Sätze, ist das ‚Arbeitsgedächtnis‘ notwendig: Es müssen die einzelnen Einheiten präsent gehalten und mit dem Langzeitgedächtnis abgeglichen werden, um den Zusammenhang und Sinn zu begreifen. Für diese Arbeitsspeicherfunktionen sind vor allem der Hippocampus und der Präfrontale Cortex zuständig.

Wichtig: Ein vertrautes, häufiges Wort wird schon nach 300-400 ms erkannt. Je mehr solche Wörter ein Text enthält, desto leichter begreifen wir ihn. ‚Sinnerfassendes Lesen‘ muss also vom ‚Bekannten zum Neuen‘ gelernt werden! Verschiedene Wortarten werden auch unterschiedlich gespeichert und sind daher unterschiedlich lesbar: So werden Verben besser aufgenommen, weil sie auch Hirnareale ansprechen, die für Bewegungen zuständig sind. Konkrete Begriffe werden besser gelesen, weil sie Erlebnisse (Autobiographisches Gedächtnis) und Emotionen (Limbisches System) stärker einbeziehen. Daher gilt allgemein für das Lernen und damit auch für das Lesen: Vom Konkreten zu Abstrakten.

7 Die Rolle des Kleinhirns

Das Kleinhirn ist an vielen Funktionen beteiligt: Es ist – neben der Kontrolle von Muskelbewegungen und des Gleichgewichts – auch ein Gedächtnisbereich vor allem für implizit ablaufende Motorik- Automatismen (‚Prozedurales Gedächtnis‘, z. B. auch für die Schreibbewegungen), und es ist in Emotionen und eben auch in Sprachfunktionen involviert.

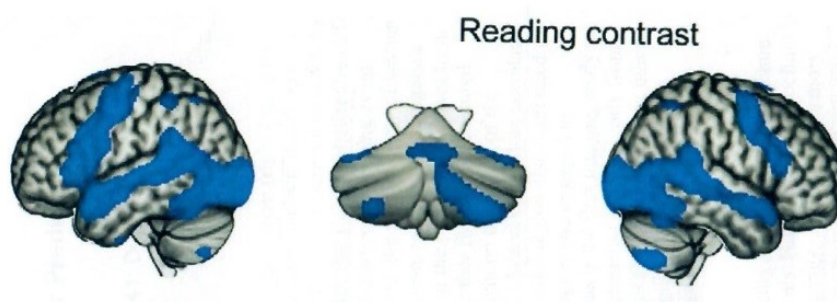


Abbildung 7: Lesage, Hansen, Miall 2017, Fig. 4

Abbildung 7 zeigt die Aktivitäten beim Lesen, bei der Ver- bzw. Bearbeitung des Satzes (‚reading contrast‘) in verschiedenen Hirnbereichen, auch im Kleinhirn: Im Prozess des Entstehens eines Satzes werden die nächsten Wörter ‚vorhergesagt‘.

Das Areal im rechten Kleinhirn ist bei diesem Vorhersage-Prozess aktiv, und zwar aktiver bei einem unerwarteten Wort (prediction error) als bei einem erwarteten (Lesage, Hansen, Miall 2017). Das Kleinhirn scheint eine Art ‚phonologic store‘ zu sein. Allerdings ist für eine Vorhersage eine Involvierung in die Semantik naheliegend. Das heißt, eine Art ‚common code‘ könnte in der phonologischen Bearbeitung wirksam sein. Dafür sprechen andere Befunde, die dem Kleinhirn auch semantische Aufgaben zuweisen (Lesage, Hansen, Miall 2017). Dazu gibt es interessante Befunde zu den involvierten

neuralen Vorgängen: Schon vor der Präsentation eines Wortes werden die kontextabhängigen ‚semantischen Vorhersagen, Erwartungen‘ durch ein spezielles elektrisches Potential angezeigt, das „semantic readiness potential“ (SRP) genannt wird (Grisoni, Miller und Pulvermüller 2017, 4848):

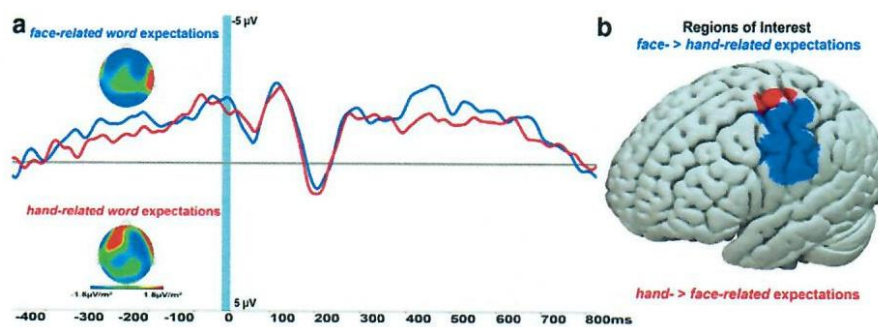


Abbildung 8: Leicht modifiziert nach Grisoni, Miller und Pulvermüller 2017

Diese ‚N400-Welle‘ tritt auf, wenn der vorherige Satz-Kontext zum kommenden semantischen Bereich passt; wenn nicht, dann gibt es kein SRP. Das Potential baut sich ca. 400 ms vor dem Test-Wort auf (daher -400 ms) und erzeugt dann ein ‚Reaktionspotential‘ unmittelbar nach der Präsentation (siehe Fig. a). Zunächst sieht man diese SRP in den sensomotorischen Arealen (Fig. b), und zwar sehr spezifisch: bei Hand-bezogenen Wörtern (z. B. schreiben) oben (in den Handfeldern der Sensomotorik), bei Gesichts-bezogenen Wörtern (z. B. sprich mit mir) darunter (in den Gesichtsfeldern).

8 Spezialthema „Lesen“¹

Ein kurzes Video zeigt die wesentlichen Bereiche des Gehirns, die beim Lesen kooperieren: „How Does The Reading Brain Work?“ <https://www.youtube.com/watch?v=5kB7GgLIr7M>; am 02.09.2014 veröffentlicht. Siehe auch das Video mit Dehaene (2013): Reading the Brain.

Der Weg zum Lesen: Grundlegend für alles Lernen, auch für das Erlernen des Lesens, ist es, die Neugierde und Fantasie kind- und altersgemäß zu ‚pflegen‘. Dazu gehören unter anderem das Erzählen, das gemeinsame Anschauen von Bilderbüchern, das Vorlesen, etc. Das Lesen beginnt also vor dem Lesen! Das spätere Lesevermögen wird stark davon beeinflusst, wie oft und wie lange die Eltern und andere Bezugspersonen den Kindern vorgelesen haben. Das Vorlesen hilft sowohl bei der Wortschatzerweiterung als auch

¹ Siehe dazu auch Kapitel 4

der syntaktischen und grammatischen Entwicklung. Außerdem lernt das Kind auf dem Schoß, Lesen mit guten Gefühlen der Beziehung zu verbinden. Und auch die Geschichten vermitteln Gefühle und helfen eine ganz wichtige Eigenschaft zu entwickeln, die Empathie. Alle diese Vorstufen werden als „emergente oder frühe Literalität“ (Wolf, M. 2010, 99) bezeichnet. Dies ist verbunden mit dem Verständnis von Bildern und dann auch mit der allgemeinen Sprachentwicklung (Wolf, M. 2010, 102-108). Ebenfalls wichtig ist die Fähigkeit der Bezeichnung von Buchstaben. Kinder erwerben in den meisten Schriftkulturen ein Repertoire an Buchstaben und Wörtern, bevor sie lernen, diese Buchstaben zu schreiben (Wolf, M. 2010, 112). Aus seinen Forschungen über die Hirnprozesse beim Lesen zieht Dehaene für die *Leselernmethode* folgende Schlüsse (Dehaene in Cook 2010, 24; Dehaene 2013):

Die Ganzwort-Methode sei nicht gehirngerecht, weil das Hirn beim Lernen des Lesens das „serial letter by letter decoding“ braucht. Daher sollten die Kinder mit dem Erlernen von Graphemen (Buchstaben) und Phonemen (grundlegenden Lauten wie z. B. „sch“) beginnen. Bei Erwachsenen findet dieses serial decoding parallel statt; daher ist die Lesegeschwindigkeit größer (Dehaene 2013).

Im Gehirn (im Hinterhaupts- und Schläfenlappen) gibt es zwei Routen des Lesens: eine unten (ventral), die für die parallele Verarbeitung von Buchstaben und Wörtern zuständig ist; und eine zweite oberhalb (dorsal), die eine serielle Verarbeitung Buchstabe für Buchstabe durchführt (Wolf, Barzillai und Norton 2008). Die ventrale Route wird allerdings erst mit zunehmendem Lesen immer besser und schneller (Dehaene 2013), weil sie auf das größere Repertoire zurückgreifen kann. Sie wird dann auch mehr links-hemisphärisch spezialisiert. Die ventrale Route wird als „Bahn des flüssigen Lesens“ bezeichnet (Wolf, M. 2010, 168-169). Lesanfänger können die größeren Einheiten hören und segmentieren. Das „Phonembewusstsein“ ist auf jeden Fall für die weiteren Leselernprozesse sehr wichtig. Es kann durch Reime, Lieder, oder Spiele gefördert werden (Wolf, M. 2010, 139-140). Ein Grundproblem ist allerdings: Wenn die Kinder zum schulischen Lesen kommen, haben sie bereits eine sehr unterschiedliche ‚Vorgeschichte‘ ihrer Sprachentwicklung. Daraus resultiert ganz wesentlich die Forderung nach ‚Individualisierung‘. Das bedeutet: Erreichbare Ziele setzen, die unterschiedlichen Potentiale beachten, an den Stärken ansetzen, bei der Korrektur der Schwächen helfen! Dass das methodisch nicht ganz einfach ist, ist klar, aber dennoch führt daran kein Weg vorbei.

Die ‚Korrektur der Schwächen‘ hat ein sehr wichtiges spezielles ‚Anwendungsfeld‘, die Legasthenie/ Dyslexie. Darauf kann hier aus Platzgründen allerdings nicht weiter eingegangen werden.

9 Die Vorgänge in den ‚Netzen‘

Zum wirklichen Verständnis der Funktionen des Gehirns muss man sich auch mit dem ‚Innenleben‘, den elektrochemischen Prozessen in den Nervennetzen, beschäftigen: Geist, Denken, Lernen, Gefühle und natürlich auch Sprache werden von unseren Nervenzellen ‚gemacht‘: „Connections really matter“ (Elman 2008).

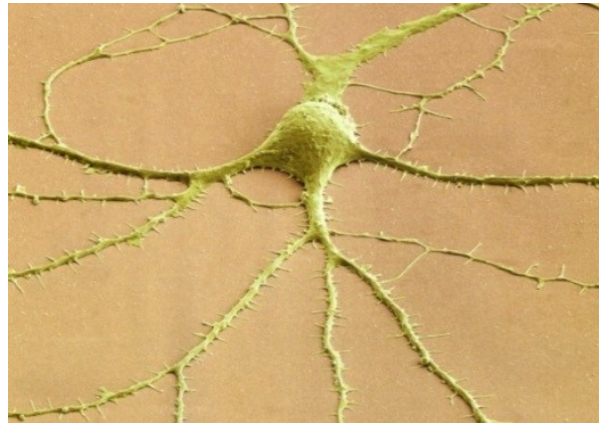


Abbildung 9: Bareither 2014, 43

Abbildung 9 zeigt eine Nervenzelle mit ‚Kontaktstellen‘ (‚Spines‘). Zur Illustration der Komplexität: Im Gehirn gibt es 86 Milliarden Neuronen (davon etwa 15 Md. in der Großhirnrinde, ca. 60 Md. im Kleinhirn), und noch einmal so viele Glia-Zellen. In der Großhirnrinde finden sich bis zu 20.000 Synapsen (Verbindungen) pro Neuron. Dazu kommt die Kommunikation zwischen Glia-Zellen und Neuronen.

Ein Rechenbeispiel: 86 Md. x 10.000 (Durchschnitt) ergeben 860 000 000 000 000 (860 Billionen) Synapsen im gesamten Gehirn. Die Synapsen bilden die Grundlage für alle Funktionen, auch für die Sprache. Eine nähere Erläuterung ist hier aus Platzgründen nicht möglich. Eine genaue Darstellung der komplizierten Vorgänge findet sich in Roth und Strüber 2015, 47-54. Das Video „Synaptic Plasticity - How Synapses Spark“ (<https://www.youtube.com/watch?v=W9BjRIddG6o>) bietet hierzu ebenfalls eine gute Darstellung.

Ein wichtiges Thema für das Verständnis des ‚Innenlebens‘ des Gehirns ist auch die Neurogenese, die Fähigkeit aus Stammzellen neue Nervenzellen zu bilden.²

² Siehe dazu z. B. Roth und Strüber 2015, 254; Apple, Fonseca, Kokovay, 2017; Kempermann 2006 und 2017; Kumar et al. 2016; Skaggs 2015; Danielson 2016; Kheirbek/Hen 2015; Bergmann und Huttner 2015; Schoenfeld und Cameron 2015; Berninger und Götz 2009; Shors 2009; Ma et al. 2009; Yao 2016.

10 Die Entwicklung der Sprache

Im Kontext der neuronalen Entwicklung ist auch die Entwicklung der Sprache von besonderem Interesse. Diese Entwicklung beginnt bereits im Mutterleib (im letzten Schwangerschaftsdrittel): Die Stimme der Mutter wird am intensivsten wahrgenommen und auch nach der Geburt „erkannt“, und zwar bereits in den ersten Tagen (Berger o. J., 51). Bereits bei zwei Tage alten Babys sind die relevanten Sprachregionen in beiden Hirnhälften aktiv, vor allem aber der rechte Auditorische Cortex. Aber die funktionellen und strukturalen Verbindungen sind noch unreif. Das heißt, „the brain responds to spoken language already at birth, thereby providing a strong biological basis to acquire language, progressive maturation of intrahemispheric functional connectivity is yet to be established with language exposure as the brain develops“ (Perani et al. 2011, 16056). Die Abhängigkeit der Hirnentwicklung von den Umweltreizen ist das Grundprinzip des lernenden Gehirns: Der größte Teil der Hirnentwicklung findet nach der Geburt bis ins Kleinkind- und Vorschulalter statt.

Einen interessanten Einblick in die ersten Phasen der Sprachentwicklung ab der Geburt gibt Kuhl (2011) im Video „The Linguistic Genius of Babies“. Mit sechs Monaten kennen die Babys bereits ihren Namen, lange bevor sie ihn sprechen können. Jedes Ding braucht einen Namen: Daher werden zuerst die Substantive gelernt, später die Verben, Adjektive usw. Dabei spielt die ‚Form‘ der Gegenstände eine wichtige Rolle beim Erwerb des Wortschatzes. In diesem Zusammenhang ist interessant, dass bereits sehr früh (schon bei drei Monate alten Babys) eine Verbindung zwischen den Sprachfeldern der gesprochenen Sprache im Temporallappen und dem Visual Word Form Areal (für Objekterkennung; siehe „Neural Recycling Hypothesis“) besteht (Dehaene und Cohen 2011, 256), also bereits hier eine Grundlegung für das spätere Lesen geschaffen wird. Das Zuhören und Verstehen ist früher vorhanden als das verstehende Sprechen. Das zeigt sich auch in der neuralen Entwicklung der wichtigen Verbindungen (dorsale und ventrale Stränge) der Sprachfelder. Und diese Stränge, beispielsweise zum für das Sprechen wichtigen Broca-Feld, müssen sich bei Babys erst ausbilden. Dabei ist die Myelinisierung (Umwicklung der Nervenfasern mit Isolierschichten) wichtig. Die Nervenleitung zu den motorischen Feldern ist früher myelinisiert; das ermöglicht die ersten Sprachproduktionen des „Lallens“ (Perani et al. 2011). Lallwörter sind in vielen Sprachen gleich oder ähnlich: mama, papa, dada, etc. Entscheidend für den Lernfortschritt sind hier die ‚Selbstnachahmung‘ (das „repetitive Babbeln“, Berger o. J., 52) und die Anregung durch die Erwachsenen: Wiederholen und Nachahmen sind der Schlüssel zum Lernen. Die ersten Wörter (‚Protowörter‘ wie Papa, Mama, ...) werden bald zu sogenannten ‚Einwortsätzen‘, die viele Funktionen erfüllen können: Je nach Tonfall und Gesten sind sie Fragen, Wünsche, Bitten, Befehle, Gefühle, etc. Das gilt auch für die ‚Zwei-Wort-Sätze‘, die das ‚Zeigen‘ mit verschiedenen Funktionen verbinden.

Scheinbar gibt es mindestens zwei sensible Phasen für den Spracherwerb: Für die Phoneme liegt dieser Zeitraum in den ersten beiden Lebensjahren. Die zweite Phase für

das Lernen von Syntax und Grammatik dauert länger; sie nimmt erst nach dem 8. Lebensjahr allmählich ab. Aber es gibt keine sensible Phase für die Semantik, weil ja bis zum Tod neue Wörter und Bedeutungen gelernt werden können (Aamodt, Wang 2012, 79). In diesen sensiblen Phasen sind Förderung und Anregung, auch als Basis für das Lesen, besonders wichtig (siehe oben: Stimulierung der Nervennetze und Synapsen). Die Sprachentwicklung geht von diesen ersten Phasen rasant weiter: Die „Benennung“ von Dingen wird durch die zunehmend mehr werdenden Fragen der Kleinkinder intensiviert. Im sogenannten „ersten Fragealter“ dominieren die „WAS“-Fragen, die von den Bezugspersonen ja meist ganz gut beantwortet werden können. Der Wortschatz wächst rapide an. Das „zweite Fragealter“ ist durch die „WARUM“ (denn)-Fragen gekennzeichnet: Hier wird es manchmal sehr schwierig, Kindern Antworten zu geben, die sie schon verstehen können (Schneider und Lindenberger 2012, 195).

Beispiel Niklas (bereits mit drei Jahren!): „Oma, schau der Herr Mond und die Frau Sonne!“ Nach einer Gedankenpause: „Aber warum scheint denn auch der Herr Mond? Es ist ja nicht Nacht!“ (Quelle: privat).

Zur Entwicklung der Grammatik lässt sich folgendes ausführen: Der Behaviorismus meint, der Spracherwerb erfolge ausschließlich durch Umwelteinflüsse, durch Verstärkung und Nachahmung. Diese Prozesse spielen sicher eine wichtige Rolle, erklären aber bei weitem nicht alles. Der Nativismus von Chomsky sagt, dass speziell der Erwerb der Grammatik viel zu komplex und daher nicht durch reine Nachahmung möglich ist. Er nimmt an, dass Kinder mit einem Spracherwerbsmechanismus (LAD – language acquisition device) geboren werden. Dieses Grundprogramm enthält Regeln, die „universell“ für alle Sprachen gelten (z. B. Subjekt-Prädikat-Unterscheidung); daher wird es auch als „Universalgrammatik“ bezeichnet (Blakemore und Frith 2006, 68-69).

Kritiker meinen, dass aber noch mehr notwendig sei als dieses ‚Grund-Set‘ an Regeln, und postulieren den Interaktionismus, der die angeborenen Programme und umweltbedingten Einflüsse in einer Wechselwirkung sieht. Es wird vor allem die Rolle des sozialen Kontextes betont: So zeigt eine Reihe von Studien, dass Kinder aus Familien mit einem niedrigen Sozialstatus eine schlechtere Sprachentwicklung haben, was auch in den für Sprache zuständigen Hirnarealen nachweisbar ist (Wolf, C. 2010, 14-20). Wahrscheinlich haben diese Prozesse (Behaviorismus, Nativismus, Interaktionismus) verschiedene Gewichtung bei den unterschiedlichen Aspekten bzw. Kompetenzen und Komponenten der Sprache. Insgesamt und bei der Grammatik ganz besonders genügt sicher nicht die einfache Nachahmung, sondern das Kind muss auf der Basis des Sprach-„Angebots“ die abstrakten „Regeln“ ableiten und „konstruieren“ (Weinert und Grimm in Schneider und Lindenberger 2012, 436). Kinder sind beim Konstruieren oft sehr kreativ. So verwenden sie z. B. „Pflanzenmann“ für einen Gärtner (Berk 2005, 322). Sie machen aber auch Fehler, die deutlich zeigen, dass sie die Grammatik eben tatsächlich durch „Konstruktion“ erarbeiten (Berk 2005, 323): Mein Spielzeugauto „brichte“ (statt „ist gebrochen“) oder: „Mause“ statt „Mäuse“.

Zur Sprachentwicklung im Schulkindalter ist folgendes zu bedenken: Beim Schuleintritt gibt es erhebliche Differenzen im Sprachniveau. Die Sprache entwickelt sich natürlich im Schulkindalter intensiv weiter, auch wenn es nicht so sichtbar (bzw. ‚hörbar‘) ist wie in der frühen Kindheit. Viele neue Wörter werden aus dem Kontext mit dem Lesen erworben. Die Kinder benützen die Sprache reflektierter und analytischer. Im Zusammenhang mit der allgemeinen kognitiven Entwicklung vom konkret-operatorischen zum formalen Stadium ist auch das sukzessive Verständnis abstrakter Begriffe zu beobachten: Kauschke, Nutsch und Schrauf (2012, 2-11) konnten durch Reaktionszeitexperimente nachweisen, „dass sich die Qualität und Geschwindigkeit bei der Verarbeitung abstrakter Wörter in der Altersspanne zwischen acht und zwölf Jahren verändert“ (9): Achtjährige verarbeiteten konkrete Wörter richtiger und schneller als abstrakte. Auch die Zwölfjährigen konnten konkrete Begriffe besser verarbeiten, aber die Reaktionszeiten unterschieden sich nicht mehr in Abhängigkeit vom Konkretheitsgrad. Diese Entwicklung vom ‚Konkreten zum Abstrakten‘ ist insgesamt eine Maxime für den schulischen Unterricht. Dies bedeutet für die Sprache zweierlei: Einerseits ist eine zu frühe und gehäufte Verwendung von abstrakten Begriffen zu vermeiden, andererseits ist die Abstraktionsfähigkeit der Kinder zu fördern. Dabei ist kritisch zu hinterfragen, welche Abstrakta überhaupt Sinn machen. Durch gute Anleitungen in der Schule kommt es auch zu einer fortschreitenden Lautdifferenzierung und Verbesserung der Artikulation. Eine wichtige Aufgabe der Schule ist es, die ‚gehobene Sprache‘ zu schulen. Während des Schulkindalters verbessert sich auch die Grammatik: Die Konstruktionen werden komplexer. Auch die durchschnittliche Satzlänge nimmt ständig zu. Verbesserungen der kommunikativen Seite der Sprache (der Sprachpragmatik) sind ebenfalls zu verzeichnen. Es entwickeln sich bessere Gesprächsstrategien, z. B., um zu erreichen, was sie wollen. Die Kinder können auch besser auf Unterschiede zwischen dem, was Menschen sagen und dem, was sie meinen, reagieren. Abschließend ist zu konstatieren, dass es große individuelle Unterschiede gibt. Leider geht die Schere in der Sprachkompetenz im Verlauf der Entwicklung immer weiter auseinander. „Wortarmut“ (Moats in Wolf M. 2010, 122) aufgrund mangelnder familiärer Kommunikation und nicht vorhandenen Lesestoffs wirkt sich verheerend auf die weitere Sprachentwicklung und das Lesen aus.

Weitere interessante Einblicke zur Sprachentwicklung bietet das Video von Mayberry (2015). Im Laufe der Sprachentwicklung verändert sich das Gehirn. Apropos „verändern“: Wie wird sich das sprachliche Vermögen unserer Kinder und Kindeskinde weiterentwickeln, wie wird sich das Gehirn angesichts der elektronischen Medien verändern?



Abbildung 10: Gehirn&Geist 2011, 7-8, 83

Die Evolution hat uns den aufrechten Gang, durch Veränderung des Gehirns das Denken und eben auch die Sprache gebracht. Umwelt- und Lerneinflüsse wirken auch heute noch auf das Gehirn ein. Eine spannende Frage: Wie verändert die veränderte Kommunikation und auch das veränderte Lesen (Simsen, Chatten, Surfen, E-mailen) das Hirn? Führen diese neuen Medien zur „digitalen Demenz“, wie Spitzer (2012) meint? Hier ist sicher noch viel Forschung notwendig, um die Positiva und die Negativa der ‚digitalen Welt‘ klar zu formulieren!

Einen kurzen Überblick über das, was sich alles im Gehirn durch das Lernen von Sprachen verändert, gibt das Video „How Does Language Change Your Brain?“: <https://www.youtube.com/watch?v=aGITqiG-Ips>; veröffentlicht am 11.08.2015.

11 Musik und Sprache

Nach Levitin ist der „Musik-Instinkt der Hit der Evolution“ (2009, 317). Die Fähigkeit, sich mit Kunst (in ‚Bild- und Musiksprache‘) auszudrücken, ist möglicherweise der gesprochenen Sprache vorausgegangen. Manche meinen, es war umgekehrt. Wie auch immer die Reihenfolge gewesen sein mag, Musik und Sprache sind ‚verwandt‘. Es gibt Ähnlichkeiten hinsichtlich der akustischen Parameter (Frequenz, Dauer, Intensität, Klangfarbe). Beide, sowohl Musik als auch Sprache, implizieren Aufmerksamkeit, Gedächtnis, Rhythmus, Melodie, Harmonie, Emotionen, und auch Bedeutungen. Musik und Sprache nützen teilweise „overlapping neural resources“ (Zioga, I., Di Bernardi Luft C., Bhattacharya, J. 2016, 267): Die Tonlage ist sowohl für die Melodie in der Musik als auch für die Prosodie (Betonung, rhythmische Gliederung) bei der Sprache wichtig. Die Rhythmen, sowohl in der Musik als auch in der Sprache, haben eine Entsprechung in sogenannten Oszillationen (elektrischen Schwingungen) im Gehirn: Es gibt solche Schwingungen, die den Tempi in der Musik entsprechen, und auch Rhythmen, die mit Sprache synchronisiert sind (Max-Planck-Gesellschaft 2015b). Ein wesentliches gemeinsames Feld für Sprache und Musik ist das Broca-Areal im Schläfenlappen: Es ist nicht

nur für die Sprachproduktion zuständig, sondern „speziell dafür, verschiedene Elemente zu einem Gesamtbild zusammenzufügen. [...] In der Sprachverarbeitung müssen Einzelwörter zu Sätzen kombiniert werden, im Fall von Musik einzelne Töne zu Melodien“ (Max-Planck-Gesellschaft 2015a; siehe auch Kuhnke 2017).

Levitin (2009) entdeckte, dass Musikhören Teile der Sprachregionen in der linken Hälfte aktivierte, interessanterweise aber auch eine analoge Region in der rechten Hemisphäre (156-157). Und auch das Kleinhirn, das bei der Sprache eine wichtige Rolle spielt (siehe oben), ist in Musik involviert: Beim Anhören von Musik wurden starke Aktivierungen in diesem Hirnteil nachgewiesen (Levitin 2009, 217).

Musik und Sprache beeinflussen sich positiv. So finden sich bei musikalischer Erfahrung z. B. eine verbesserte Tonhöhenverarbeitung in der Musik und in der Sprache sowie eine verbesserte phonetische Kategorisierung, mit höherer Aktivierung des linken Planum temporale, bei Musikern als bei Nichtmusikern. Musikalische Expertise verbesserte sowohl die Wahrnehmung linguistischer Merkmale in der Fremdsprache als auch die Wahrnehmung der Zeitstruktur in der Mutter- und Fremdsprache. Höhere musikalische Fähigkeiten korrelierten mit einer guten „phonetic coding ability“ und einer besseren Aussprache in der Fremdsprache (Turker 2017). Musikalisch kreative Menschen haben größere Hirnoberflächen und Volumina in den relevanten Arealen für die beteiligte Motorik, die Sound-Verarbeitung, die Sprache, im sogenannten „Ruhe-Netzwerk“ und für die Emotionen (Bashwiner et al. 2016). Dass Musik und Sprache teilweise dieselben Hirnareale (z. B. den rechten Auditorischen Cortex) verwenden, zeigt sich schon bei Babys (Perani et al., 2011). Für Babys ist die Melodielinie die hervorstechendste Eigenschaft. Das passt auch gut zur Sprachentwicklung (siehe auch die ‚Melodie‘ des Babytalk).



Abbildung 11: Foto: Privat

Das Erlernen eines Instruments in der Kindheit trainiert das Gehirn und hat damit auch positive Auswirkungen auf die späteren kognitiven Leistungen (Beras 2014; Dalla Bella und Tillmann 2015). Auch das Hören von Musik (Altenmüller et al. 2014; Rollnik/Altenmüller 2014; Zatore et al. in Suzuki und Fitzpatrick 2016, 54) aktiviert viele Hirnareale in den Frontal- und Schläfenlappen (auch links), sogar im Kleinhirn und natürlich vor allem im Limbischen System (Striatum, Amygdala, Hippocampus). Dort wirkt es sich auf das Belohnungssystem (Nucleus accumbens, Ventral tegmentales Areal) aus. Es führt nicht nur zu emotionalem Wohlbefinden, sondern beeinflusst kognitive Prozesse, damit auch die Sprache positiv. Das wird auch dadurch erreicht, dass der Blutdurchfluss im Limbischen System verbessert wird.

12 Ein kurzes Schlusswort

„Je mehr wir über das Gehirn lernen, desto mehr Wege werden wir finden, seine Funktion zu verbessern.“ (Minsky 1995, 83).

Möge uns die Hirnforschung - interdisziplinär mit Psychologie, Linguistik, usw. - viele wertvolle Erkenntnisse liefern für das ‚gnoti sauton‘, das ‚Erkenne Dich selbst‘, damit wir besser lehren und lernen, lesen und damit hoffentlich auch die vielen Probleme und Herausforderungen besser meistern können! Bei all diesen Bestrebungen wissen wir

natürlich, dass unsere Erkenntnisse immer nur vorläufige sind, „Annäherungen an die Wahrheit“ (Popper 1994, 39).

Und für das schulische Lernen insgesamt dürfen wir nicht vergessen:



Trotz Tests und Prüfungen aller Art ist die Bildungsphilosophie alter Pädagogen aktueller denn je: „Nicht allein das ABC bringt den Menschen in die Höh’, nicht allein in Rechnungssachen soll der Mensch sich Mühe machen, ... sondern auch der Weisheit Lehren muss man mit Vergnügen hören“ (Busch 2005, 1). ‚Bildung‘ muss ‚umfassend‘ sein, nicht nur Ausbildung und nicht nur an Messungen orientiert! Diese Forderung nach Ganzheitlichkeit ist hirnbilologisch sehr gut begründbar!

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