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Constructions: Emerging and Emergent

Edited by Peter Auer and Stefan Pfänder

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Constructions: *Emergent* or *emerging*?

1 Introduction

In his contribution to this volume, Paul Hopper distinguishes between emergent and emerging grammar: “By ‘EMERGING’ we are entitled to understand the development of a form out of its surroundings, its *epigenesis*. The term ‘emerging’ is thus appropriate for the view of grammar as a stable system of rules and structures, which may ‘emerge’ (i.e., come into existence) out of a less uniform mix”. In contrast, the term “emergent” refers to “the fact that a grammatical structure is always temporary and ephemeral”. Emergent grammar is provisional, epiphenomenal to conversation and “consists not of sentences generated by rules, but of the linear on-line assembly of familiar fragments” and structure which is “constantly being elaborated in and by communication”.

This volume embarks on an exploration of the processual and dynamic character of grammatical construct(ion)s in emergence, both from “emergent” and “emerging” perspectives. In both senses, grammar is modelled as highly adaptive resources for interaction. Among the questions addressed are: How can what initially appears to be construction x end up being construction y in on-line syntax? What are the local interactional needs which such processes respond to in the process of their emergence? Does the on-line (re-)modelling of a construction concern its syntactic or semantic side – or both? Moreover: Should emergent grammatical structures as they unfold in real time be seen as steps in the emerging of grammar?

In this introduction, we will first sketch some defining elements of emergence as the term is used in disciplines outside linguistics (Section 2) before briefly introducing the notion of emergence in linguistics, mainly in the work of Hopper (Section 3). After a brief discussion of constructions as emergent gestalts (Section 4), we discuss the relationship between emergent and emerging structures in language (Section 5). We will close this introduction with a brief presentation of the contributions to this volume (Section 6) and a summary of the main features of emergence in language (Section 7).

2 Emergence: Elements of a definition

Emergence is traditionally defined as an effect that is different from the sum of the effects of each causal conjunct (Mill 1843); it is thus a feature of complex systems. Emergence is a non-teleological process in which multiple factors are operative which lead to a new yet unpredictable element or feature in a given system. The non-teleological character of emergence means that the process is for the most part unintentional. The factors in play can function either synchronically or diachronically. In both cases, however, emergent structures have the quality of oversummativity, i.e. knowledge of the factors involved in the process of change does not lead to a complete understanding of the emerging or emerged phenomenon. This also holds for long-scale selection processes in evolutionary scenarios (Piattelli-Palmarini 1989). For instance, in hierarchically structured systems, the more complex properties of the higher levels cannot be reduced to the more primitive properties of the lower levels, although they are functionally dependent on them. Weak and strong perspectives of oversummative (emergent) processes can be distinguished (Stephan 1999). The weak claim is that the oversummative aspects of higher levels are currently unexplainable given our limited knowledge of the working of the lower levels, but that such an explanation is possible in principle. The strong position challenges this possibility and argues that it is *a priori* impossible.

Emergent phenomena are often self-reinforcing (auto-referential) and thus show circular causality. This can be illustrated by many events in the physical world. The surface of sand dunes, for example, is an emergent phenomenon in which the interplay of the air steams and ripples in the sand creates the waves. Starting with a slight unevenness of the surface, the grooves become deeper and deeper by means of self-reinforcement.

Emergentist approaches differ from mechanistic ones, according to which the results of a development consist of an increase in complexity of certain systems, but which does not result in a qualitative change (cf. Beckerman, Flohr and Kim 1992). Contrary to this view, emergentist approaches assume the novelty of certain properties which hence alter the system as a whole. Novelty occurs whenever the first exemplar of a new type is instantiated (Stephan 1999: 18).

Emergence has become a much-discussed and disputed concept in different disciplines. For instance, it plays an important role in the life sciences. A living organism is constituted by organs, which are constituted by cells, etc. But life cannot be explained by the functionality of the organs or their constituting elements alone. There has to be a complex interplay between the organs in order for life to emerge. Another illustrative example of (synchronic)

emergence in complex biological systems is the swarming behaviour of birds and fish. The swarm has a "behaviour" of its own which cannot be grasped by describing the movements of one of the individuals (Mielke 2008: 79, Blitz 1992). As mentioned before, emergence can be studied using either a synchronic or diachronic approach: Synchronic emergentist approaches describe the structure of a system that has features which are not shared by any of the constituting parts of the system or their sum, while diachronic emergentist approaches focus on the development of novel features in time (cf. Stephan 1999: 68).

Diachronic emergentist views in the life sciences maintain that new entities or phenomena can come into being via evolution in nature. They therefore opt against a crude form of reductive materialism, according to which all change is solely due to regroupings and reorderings of existing elements. The temporal dimension of emergence emphasizes the novelty of the higher-level properties and the unpredictability of the moment in which such a novel phenomenon occurs. In terms of evolutionary biology, for instance, genetic mutation happens by chance, i.e. its systemic effects and its time of occurrence is unpredictable. The question is whether this change will stabilize, thus causing a permanent change in the systemic structure.

In neuroscience (Gregg 2003; Racine & Illes 2009), consciousness and mental capacities are often considered to be emergent from the neurological properties of the brain. While the neurons are the functional units which make up the material basis necessary for the computations involved in cognitive processing, the content of this process (e.g. the attitude towards an object, a belief or a desire) cannot be explained merely by looking at the functioning of the cells. It is much debated whether it is possible, as a matter of principle, to draw valid inferences about such content on the basis of a neurological inspection of brain states, i.e. patterns of neural activity associated with certain cognitive processes.

In linguistics, finally, the term "emergence" has also been used in both a diachronic and synchronic sense. In diachronic studies of variation and change, emergence refers to the development of new linguistic forms or even new varieties (in particular, dialects). From a synchronic perspective, it refers to the unfolding of syntactic projects in real time.

3 *Emergent*, but not *emerging*: Paul Hopper's approach to grammar

Hopper's notion of "emergent grammar" falls within this latter domain. It has been developed and controversially discussed since the late 1980s as an approach to the study of (spoken) syntax (Hopper 1987, 1998, 2004, this vol-

ume). Its main object of analysis is the creation of syntactic structures in real-time interaction. In contrast to most theories of grammar, and certainly those of a generative orientation, the emergent approach does not posit *a priori* linguistic knowledge in the human mind “which operate[s] on fixed categories like nouns and verbs, specif[ies] the forms of additive categories like those of case, tense, transitivity, etc., and restrict[s] the possible orders in which words can occur in a sentence” (Hopper 1987: 141). Rather, emergent grammar focuses on the collective sum of actual speakers’ experiences which is seen as the basis for the creation of new utterances without determining their structure. The notion of emergent grammar is therefore an oversummative theory in the sense discussed above.

Hopper agrees with most current research in the usage-based paradigm which maintains that routines of language use are the basis of grammar. Language does not simply instantiate grammatical blueprints which are given by some kind of I-language in a theoretically non-interesting way; rather, the structure of language develops out of talk in real time. However, Hopper goes beyond most usage-based theories of language, questioning the very existence of “grammar” as a structure outside language use. The only thing we know for sure about grammar is that it is continuously changing with use. The grammatical resources we have at our disposal are the structures we have experienced in concrete speech situations before – obviously a highly malleable and individualistic part of our “knowledge”; we rearrange these bits and pieces anew every time we speak. Language, much like culture as a whole, is always “temporal, emergent, and disputed” (Clifford 1986: 19), and “its structure is always deferred, always in a process but never arriving” (Hopper 1998: 156). Grammatical structures “come and go in the speaker’s awareness according to whether they are often or rarely heard, and are not totally and simultaneously available to the speaker without regard to context (Hopper 1988: 164).” What remains of grammar then? At best, “vast collection[s] of subsystems” (Hopper 1988: 158) which constitute a more or less provisional and negotiable framework for communication. They are like Lego blocks which can be used to build something; the structure of this emergent building is only constrained, but never determined by, the shape of the blocks. Grammar cannot be a stable synchronous state, a system *où tout se tient*; rather, it is “epiphenomenal to the outgoing creation of new combinations of forms in interactive encounters” (Hopper, this volume: 26). As such, it is an abstraction of usage, sometimes useful but not the primary object of linguistic analysis.

For Hopper, then, “emergent grammar” is not a theory of how new grammar comes into being (diachronic emergence) as it is, for instance, in gram-

maticalisation theory. He uses the terms “emergent” and “emerging” to distinguish the synchronic from the diachronic approach to emergence in language: The two follow a very different kind of temporality. Emerging grammar focuses on the resultative states and investigates how they are reached in time, while emergent grammar focuses on the processuality of an ongoing, temporally structured, never-finished process of “linguaging”. Or, to paraphrase Oesterreicher (2001), emerging grammar research often starts out with an “inverted teleology”: Since linguists already know which forms finally made it into the canonical grammar of a given language, they filter out all aspects of variation in previous language stages that cannot be linked to this final outcome. What looks like a well-ordered and even logical process of structural emergence in time is in fact constructed by the linguist, since all competing, alternative or contradictory structures that also exist in the data, but have not reached the same kind of sedimentation, are simply disregarded. Although Hopper does not deny that sedimentation exists and indeed is the foundation of grammar (cf. Hopper and Thompson 2006), his interest in emergence is not historical. Rather, the fundamental assumption of emergent grammar is that structures are “unfinished and indeterminate” (Hopper, this volume: 28); consequently, the aim of emergent grammar research is not to filter out ongoing processes of grammaticalisation, but to show how speakers go about producing structured utterances which cannot be explained entirely by the rules of canonical (or even spoken) grammar. It is this interest in the non-explained and non-explainable bits and pieces, the seemingly ungrammatical, peripheral or *ad hoc* forms which perhaps most clearly distinguishes emergent grammar from emerging grammar research.

If one considers Hopper’s examples for his approach in more detail, they seem to be of two kinds; the first kind deconstructs the grammatical patterns of standard grammars with their written basis in addition to theories (usually of structuralist–generativist provenience) which are based on notions of canonical, introspective syntax. The second examples are much more radical in that they focus on utterances that operate seemingly without grammar, i.e. those in which speakers arrange constructional patterns in a novel and improvised way. For instance, speakers may superimpose various utterances, or they may change their constructional orientation midway in the course of the production of an utterance.

The first kind of argument is well known from corpus-based spoken language research (cf. e.g. work on English matrix clauses containing *verba sentiendi* by Thompson and Mulac (1991); on relative clauses by Fox and Thompson (2007); or on biclausal constructions in German by Günthner (2008). For instance, Hopper (2001, 2004) argues that the pseudocleft construction

of the canonical format *what we need is more money* – which like all “extractions” has been a favourite topic of generative syntax for many decades, but has usually been investigated on the basis of introspection only – is not widely found in corpora of spoken language. Here, the constructional fragment *what* + Subj-V is often followed by a stretch of talk that is only weakly (if at all) integrated with the *what*-part (cf. also Günthner 2006; Auer 2009). Hopper concludes that the structure of a pseudocleft as it emerges in discourse has more to do with temporal planning and serialisation than with grammar.

The second, more radical kind of argument can be exemplified by the following example, reproduced here from Hopper’s contribution to this volume for convenience:

- DORIS: ... Sam has been,
 .. has taken such an interest in this retirement bit.
 .. (H) ... That it-
 .. it really surprises me.
 ANGELA: .. Well she’s begun to listen.
 DORIS: .. Yes she has.

There is good evidence that Doris starts out in the second line by making use of the constructional scheme INTENSIFIER + INDEF.ART. + NOUN. The intensifier *such* is stressed, and the meaning of the whole utterance is that of an evaluation or assessment. The intensifier is not anaphoric or cataphoric (cf. Auer 2006). Since line 2 ends with falling intonation, the utterance is also prosodically complete, and turn transition is possible at this point. However, it happens that (perhaps due to Angela’s non-response) Doris changes her project and retrospectively recategorizes ... *such an interest* ... as the first part of a bipartite construction in which stressed *such* is a cataphoric device which projects a following *that*-clause. This projection is fulfilled by the clause produced in lines 3 and 4.

The example proves Hopper’s point that the production of an utterance (and therefore, its grammatical structure) is not simply an instantiation of an underlying grammatical pattern, but that speakers can change their plans “on the fly” and shift from one constructional scheme to the next. But there are even more interesting examples for grammatical improvisation than such *ad hoc* reanalyses. These are examples in which there seems to be no underlying grammatical pattern which can account for the emerging structure although it comes close to one or more of them. Take the following examples from Hopper (2004):

- (a) Well, that is what we were trying to decide is whether there were any of those or whether we felt - - (CSPAÉ)
 (b) I mean this is what worries me is the evidence you see.

In these *apo koinu* structures, the speaker starts out with a presentative construction (*this/that is what X*), which could already terminate the utterance. S/he then takes the last part of the utterance (the *what*...-clause) and turns it into the first element of a pseudocleft construction which needs as a continuation a copula and a predicative clause (in the first example) or a noun (in the second example). The beginning of the utterance including the *koinon* (i.e. *what we were trying to decide/what worries me*, respectively) is therefore well-formed, as is the stretch of talk beginning with the *koinon* and continuing until the end of the utterance; however, the utterance as a whole, although delivered as one prosodic unit, does not “represent” an underlying format.

Many researchers following the paradigm of interactional linguistics subscribe to Sacks’ (1995) dictum that there is “order at all points” in interactional language (cf. particularly Schegloff’s introduction). Still, they also tacitly agree that there are always phenomena in our recordings or even in our transcripts in which word order is very difficult to explain. In other cases, it seems that no matter what analysis we arrive at, the structure still remains ambiguous. Often we leave these examples aside and do not talk about them, at least in our published work; if only for reasons of space, we focus on the “good” examples which instantiate the phenomenon in question in a more or less clear-cut way. Against this practice, Hopper argues that it creates the erroneous impression that any utterance found on a tape or in a transcript can unambiguously be assigned to a grammatical pattern. As the examples show, this is not true, even when the grammar we use for the description of conversational utterances is one which is based on and suited for the analysis of spoken language and does not have a written bias, and even when we leave out obvious repairs. Emergent grammar, on the other hand, is more interested in the vague boundaries of grammatical categories and units than in their prototypical centre, and its aim is to “explor[e] the leading edges and the territory around” (Hopper, this volume: 28); it wants to do justice to language structures that do not follow canonical patterns, that are not entrenched or sedimented, and that may be composed in an *ad hoc* fashion. The question is how they arise, not whether they can be discarded as irrelevant on the basis of an abstract notion of grammar.

Although such an approach seems indeed radical in linguistics, it is of course not difficult to trace its roots outside the discipline. In recent papers, Hopper repeatedly mentions Giddens’ sociological theory of “structuration” as an inspiration and even suggests replacing the term “emergence” (in the sense of “emergent grammar”) with this term. Giddens’ structuration is indeed meant as a criticism of the way structure is described in structural and functionalist models of society. He only concedes to social structure the

status of a “virtual order”, by which he means that “social systems, as reproduced social practices, do not have ‘structures’ but rather exhibit ‘structural properties’ and that structure exists, as time-space presence, only in its instantiations in such practices and as memory traces orienting the conduct of knowledgeable human agents” (Giddens 1984: 17). This is very much Hopper’s position, for whom language has no reality outside the practices and memory traces of its knowledgeable speakers. Even more evident is Hopper’s indebtedness to the Bakhtinian notion of dialogicity (cf. Bakhtin 1986; Linell 1998) and its post-structuralist adaptations. Hopper’s notion of deferral of structural closure echoes dialogical approaches which also stress that “our” language – the utterances we produce – is not really ours, but stems from a network of other voices that we have experienced on previous occasions and that are, however faintly, reflected in our words.

4 Constructions as emergent gestalts

While Hopper speaks of “emergent grammar”, the title of this volume replaces “grammar” with “construction”. The term “construction” is ambiguous (as is the term “grammar” in “emergent grammar”). It can be understood in a pre-theoretical and in a theoretical way. Pre-theoretically, it refers to any utterance which is complete in the sense that it constitutes an independent turn or at least a turn constructional unit, i.e. a self-contained turn component. It is a term which refers to the level of speech production and interpretation, not the level of grammatical knowledge. In spoken language, syntactic structures often do not conform to sentences in the sense of schoolbook grammar. They may be highly elliptical and often lack all the ingredients of a “proper sentence” and often consist of only one word. In this context, the term “construction” offers a convenient way of avoiding the problematic and presupposing notion of a sentence. In addition, constructions can be seen as emergent *gestalts*, i.e. units whose non-completion or completion is hearable on the basis of projections operating at any level of their unfolding in time, but which, at the moment they are completed, have all the qualities of an oversummative structure. Temporality and projection are essential components of emergent grammar.

On a more theoretical level, “emergent constructions” also alludes to construction grammar which, of course, comes in many forms. In most variants, construction grammar is part of cognitive linguistics and not very prone to conceding central status to issues of on-line emergence (cf. the overview in Croft and Cruse 2004). Rather, a grammar is usually defined by construction grammarians as a structured inventory of interrelated conven-

tional patterns – linguistic signs of varying complexity – which are located in the speaker’s mind as simple words (Langacker 1987).

However, there are also more usage-based types of construction grammar (cf. Fox and Thompson 2007; Auer 2006; Birkner 2008), which share a number of Hopper’s concerns. For instance, one of his arguments against canonical syntax patterns which are defined based on the linguist’s intuition is that corpus-based analysis often reveals a strong amount of idiomatisation or lexical fixation of the pattern. For instance, the English pseudocleft construction mentioned above is usually used with a small number of verbs (*to be*, *to say* and a few others; Hopper 2004). If this is the case, one might consider an alternative grammatical description which posits a *number* of clefting constructions, containing one of these verbs each, and each tied to a particular discourse function. Hopper’s approach and certain variants of construction grammars share scepticism towards broad-sweeping generalisation in linguistic description and abstract, maximally general linguistic “rules”; they share a concern with the more specific, sometimes lexically specified and even prefabricated types of constructions. There is much less agreement, though, as to whether a construction is real as a cognitive unit or whether it only is an abstraction derived by the linguist from language use.

Hopper definitely favours the second alternative: “Canonical constructions should [...] be seen as highly stylized cultural artifacts, amalgamations of fragments put together” (2001: 125–126). A similar position is also taken by Linell, who expresses his reservations vis-à-vis construction grammar by arguing that setting up inventories of constructions is merely the result of “decontextualising activities by linguists and other language cultivators” (2005: 43). According to Imo (this volume), linguists are the only ones involved and interested in “a more or less irrelevant – almost artistic – game of inventing structure”; the language users themselves simply build on previously heard or used utterances, and they reuse these structures in ways which always vary slightly. The issue is not whether language comes into existence anew in each speaking situation, for Hopper would readily concede the role of “prior text” – after all, it is this prior text which the present utterance refers back to dialogically. Furthermore, since this prior text needs to be remembered, it is beyond question that memory (and therefore cognition) plays a role in languaging. Rather, the question is *how* prior text is represented in the mind: as concrete utterances remembered in their individual shape, or as more or less abstract patterns filtered out of this prior experience?¹

¹ The question is also discussed in so-called exemplar theory, particularly in phonetics and phonology (cf. Pierrehumbert 2001).

Hopper would agree that there is a continuing tension between sedimentation and innovation or improvisation (also cf. Günthner, this volume), but it is not clear whether he would also concede that abstraction is a necessary condition for the indexicality of language.

Some contributions in this volume (such as Deppermann's) take exactly this latter view and argue that the concrete utterance which is produced at a certain moment in an interaction is contextually overdetermined by it; for grammar (constructions) to be a useful instrument in such *overdetermined* contexts, it therefore needs to be *underdetermined* – i.e. constructions need to be abstract in order to be flexible enough to be used in a multitude of singular situations (also cf. Auer and Günthner 2005, with reference to Hartmann 1959). It is precisely a grammar's abstractness which could be argued to render it "a resource for rhetorical concerns of local (re)interpretation" (Deppermann, this volume: 120). This is also the meaning of the term we follow in this introduction.

5 Emergent vs. emerging – how large is the gap really?

As we have seen above, Hopper argues for a strict separation of emergent grammar research and emerging grammar research. Not all contributors to this volume subscribe to this strong dichotomy, however. For instance, Pekarek Doehler (this volume), while situating her paper squarely in the Hopper paradigm of emerging grammar, hints at the possibility that emerging and emergent grammar might be inextricable after all. She shows how a given grammatical format can be reconfigured according to "locally occasioned interactional needs" and sometimes looks "patched together within a moment-by-moment temporally organised process" (81). But she also argues that this process of adaptation in the end might lead to a different canonical structure, i.e. to language change. This raises the question of whether emergent and emerging approaches are indeed antagonistic, an issue we turn to in this section.

To begin with, it is not clear whether Hopper's portrayal of "emerging grammar" is based on a contingent critique of (some parts of) research on grammaticalisation and language change in general as it is practiced today, or whether it is an *a priori* argument against any kind of diachronic analysis. It seems to us that the "inverted teleology" which is typical of much of diachronic research is not inherent to the investigation of language change as such; it is possible to do research on language change and investigate non-teleological types of variation. It is obvious that in the beginning of any kind of grammatical or phonological change, we will find a certain amount of

variation between old and new forms, or between pragmatic and syntactic solutions to communicative problems/functions. The new forms will always start out as an individual's or a group of individuals' innovations, patched together from elements of their previous experiences and *ad hoc* formulating practices, including improvisation. Many of these idiosyncratic forms will never survive, let alone sediment into grammatical structures of a language system. It may be very worthwhile to investigate these incipient forms of language change and to ask why they fail to win out against competing structures.

In fact, at least two of Hopper's examples show characteristic features of such incipient sedimentation as grammatical patterns (constructions); both, however, have not yet quite made it into the grammar. They seem to have been "locked" at the stage of incipient grammaticalisation for a long time, and have remained marginal in quantitative terms as well. The first example is *apo koinu* utterances as discussed above for English; from research on similar forms in German (Scheutz 1992, 2005) and Swedish (Norén 2007), we know that they have been an option throughout most of the history of these languages, with varying stages of popularity. Characteristically for incipient grammaticalisation, we find a whole range of variants of this format, from clearly pragmatically conditioned on-line phenomena (where hesitations and prosodic breaks during the delivery of the construction make it clear that some kind of reorganisation in time is taking place) to half-grammaticalised sedimentations of some particular variants out of the many *apo koinu* formats, which show a specific prosodic packaging and are linked to a single pragmatic function. In German, the most construction-like of these *apo koinu* formats are so-called mirror constructions, such as

Das ist **ein solcher Idiot** ist das!
'That is a such idiot is that'

Das ist ja **unglaublich** ist das!
'That is PART incredible is that!'

in which the initial copula construction with an anaphoric element in the first position (*das*) ends in a predicative noun or adjective, which is then used as the first element in an inverted copula construction with the predicative element in first position. The predicative element functions as the *koinon* (boldface). The pattern shows all the features of a full-fledged construction such as delivery without a break before the *koinon*, as it is found in on-line composed variants, and a typical emphatic function resulting from the movement of the topical evaluative element from last to first position. Other *apo koinu* formats are much less frequent, while others are less generally ac-

cepted and more likely to be heard as self-corrections, such as topicalizing *apo koinus* as in²

wie_s wegkommen sind war_er (-) **zehn zwölf Jahr so was** wird_er gewesen
sein gell ja
'when they were taken away he was (-) ten twelve years or so he must
have been right yes'

In this case, the speaker hesitates in the production of the sentence when s/he reaches the age description. After the hesitation, s/he resumes the sentence by recategorizing the sentence-final predicative noun phrase into a sentence-initial one. (Also note that the emerging syntagm is less rigidly structured since the final part does not exactly mirror the beginning, but changes it by adding an epistemic auxiliary, *wird*.)

There is some evidence that this pattern used to be more accepted than it is today even in writing, particularly in Middle High German texts, and that it was grammatically less restricted at that time; for instance, *apo koinu* formats in which two propositions are expressed which share one noun phrase (here in the role of the object) are unusual today but were widespread in earlier forms of German (here MHG)³

Rōlant uie mit paiden hanten/**den guten Oliuanten**/satzer ze munde
'Roland took with both hands/the good olifant [a horn]/put he to
his mouth'

A full historical account of the ups and downs of the *apo koinu* construction in German (or other Germanic languages with flexible word order) still needs to be written (however, see Scheutz 1992); what seems clear, though, is that the format has been around for a long time, that it has shown tendencies towards grammaticalisation, but that despite the "naturalness" of the inherent topic/comment inversion which lends itself to functions such as emphasis or shift of perspective, the pattern has never completely sedimented, perhaps as a consequence of prescriptive grammars and their overt sanctioning of constructions containing two predicates. *Apo koinu* utterances have always remained somewhere between mere on-line emergence and grammaticalisation.

The second example of an incipient grammaticalisation which has not fully made it into the grammar (presumably also for quite some time) is the hendiadyn or serial verb construction discussed in Hopper (2002, 2005). We know – if only from other languages in which grammaticalisation has proceeded much further – that the *hendiadyns* have the potential of developing

² Example from Scheutz (1992: 258).

³ From: Rolandslied des Pfaffen Konrad, 6653–6655 (from 1170).

into a full-fledged grammatical device; serial verb constructions are indeed a central feature of many languages (for instance in West Africa and South East Asia; cf. Crowley 2002; Aikhenvald and Dixon 2006). German, English and Swedish all contain beginnings of such a process. While fully developed serial verb constructions consist of two juxtaposed verbs not linked by a conjunction which express only one predication and often add aspectual meaning, the Germanic languages have only developed "weak" forms of serialisation of two verbs linked by a conjunction, such as in

(a) Swedish⁴

Peter **gick** och **läste** en bok.
'Peter went and read a book.'

(b) English⁵

They **took** the same design as before **and enlarged it** by including a library and a gymnasium.

(c) German⁶

(...) ich höre, wie alle zuschauen von dieser Regierung von ÖVP und FPÖ, wie die Bundesregierung **hergeht und sagt**, nein, wir haben keine Initiative, dass etwas besser wird, sondern wir schicken alle mit 50 Jahren in Pension
'I hear how everybody in this government of ÖVP and FPÖ just watches, how the federal government **comes and says**, no, we have no initiative to make things better, but we send everybody into retirement at the age of 50.'

In the three examples given here, it is clear that the first of the two conjoined verbs is not used in its conventional meaning but has undergone semantic bleaching: neither is *the design* in the English example literally taken to any place, nor does the government in the German example "move" anywhere to say something. On the other hand, it is difficult to pinpoint the semantics of these quasi-serial verb constructions, and there are many examples (as shown by Hopper 2005) in which it is unclear whether we are already dealing with a serialised package of two verbs or two independent predications.

As a third example of an emergent and perhaps also emerging construction, consider the *cosa de* QUOTE structure in (Argentinian) Spanish recently discussed by Ehmer (2009: Ch. 5.2.). He finds in his data "unusual" ways of introducing hypothetical or generalized (impersonal) direct speech by the noun *cosa*, as in

⁴ Fabricated example from Wiklund 2009: 181.

⁵ From Hopper (2005).

⁶ Quotation from the protocol of the Steirermark parliament, session of 16.11.2004, MP Schrittwieser.

No sé por qué la gente tiene esa cosa de "pero es tu cumpleaños tenés que hacer algo"

'I don't know why people have this thing of 'but it is your birthday you need to do something''

There are reasons to speak of an established construction of spoken language here, which obviously is modelled on the *N de N* construction in Spanish (the standard way of forming compounds) but extends it to whole sentences of quoted speech in the position of the second noun. In the most construction-like version, as in the example above, the first noun is the dummy element *cosa* ('thing') and the meaning of the construction is equivalent to that of a quotative verb. But again, in addition to this relatively well-established pattern, similar structures can be found in which it is much less clear whether we are dealing with a sedimented pattern. For instance, the structure often occurs in a syntactic context in which the previous utterance contained the standard construction *N de N*, with the second *N*-position filled by a non-finite verb form, i.e. the infinitive:

*Porque yo tengo esa cosa: de salvar;
de "ay po::bre, vamos a sacrificarnos
por".*

'For I have this thing of saving
of 'oh poor you, let's sacrifice
ourselves for (it)''

This suggests that the *N de QUOTE* structure copies and adapts a previously introduced pattern, i.e. it emerges on-line. Also, Ehmer finds related structures in which a semantically more rich noun fills the first *N*-position (such as: *la actitud ... de 'no quiero a nadie'* 'the attitude ... of 'I don't like anybody''), or in which a *verbum dicendi* is inserted after the first *N* (as in: *esa sinceridad de decir 'que me pasa con vos'* 'this openness of saying 'what have I got to do with you''). All these cases testify to the ambiguous status of the format: Although there are some clear cases of an emerging construction, there are also cases in which the structure is clearly emergent, put together on the spot out of several pre-existing patterns in discourse.

The three examples combine features of grammar as an emergent, on-line phenomenon, with features of incipient grammaticalisation, i.e. grammar emerging in time. Analysing them in terms of the first paradigm does not prevent us from pointing out that language change may also be taking place. No inverted teleology is needed and even possible, since the outcome of the process is unclear. Grammaticalisation has its beginnings in emergent grammar although the inverse does not hold: Emergent grammar may or may not lead to grammatical change.

Another argument for a reconciliation of emerging and emergent grammar starts from the opposite angle, i.e. improvisation. For improvisation to work, speakers and hearers must have a shared stock of expectations of what is to come next in the syntactic project. This is not possible without categorized linguistic experience, i.e. grammatical knowledge. Syntactic projects during their very emergence have to rely on certain expectations shared by hearers and speakers alike. These expectations are based on linguistic and social routines of interaction. There is no need to exclude these routines from an emergentist approach to spoken syntax; rather, this approach presupposes some categorized linguistic knowledge. An uncategorized set of previously heard utterances does not explain how improvising speakers play with expectations.

6 The contributions in this volume

PAUL HOPPER introduces the volume with his chapter "Emergent grammar and temporality in interactional linguistics" in which, on the basis of various examples, he shows how linguistic interaction unfolds in real time and how commonly used expressions get recycled in this process. Emergent grammatical structure is hence understood as ephemeral and epiphenomenal to the ongoing interaction. Speakers reassemble familiar fragments, as in the case of the so-called sluicing construction (*we knew we were losing oil, we did not know where*). Another construction, the "such a/n"-construction, shows how the speaker is creating her grammar as she goes. Hopper elaborates previously neglected aspects of emergent grammar, emphasizing the openness of structure, i.e. its transformative aspects. The familiar fragments are not only put together in various well-known ways; a surprising combination may also lead to the constant modification and negotiation of constructions during use.

Building directly on Hopper's claims, SIMONA PEKAREK DOEHLER also highlights the processual character of grammatical constructions in her chapter "Emergent grammar for all practical purposes". Taking up the theme of left and right dislocations in French, she shows how speakers revise the syntactic trajectories on the fly. What initially appears to be a given construction type thus ends up as another construction type. Emergent grammar appears to be distributed over speakers and time and thus becomes a shared, yet highly adaptive resource for interaction. The recalibration of constructions as they unfold in real time allows speakers to address practical issues, i.e. local interactional needs, such as displaying alignment or inviting recipient action.

ARNULF DEPPERMAN also zooms in on the local management of constructions. His paper "Constructions vs. lexical items as sources of complex meanings" suggests that the precise local meaning of a construction emerges from the interplay of meaning potential and the ongoing adaptations within the conversational history of the participant's uses of the construction in interaction. The study of two German construction types (*verstehst du* 'do you understand', and *ich kann nicht verstehen* 'I cannot understand') reveals that not only the formal side of grammatical constructions is emergent, but also their meanings. The findings of this paper provide further evidence for the claim that participants analyse both the syntactic and semantic features of constructions during their course of production.

In his chapter "Online changes in syntactic gestalts in spoken German", WOLFGANG IMO argues that in German, so-called garden path sentences, with their typically unintended ambiguity, occur very rarely in corpora of everyday talk-in-interaction. One reason for this is the relatively strong morphology of German which leads to early disambiguation in on-line production. If garden path sentences are found at all, they are related to turn continuation or incrementation; instead of causing trouble for interactional processing, they are a resource for the adaptation of the actual syntactic project to local contingencies, such as turn management. Imo relates his findings to the exploitation of some aspects of the "potentialities of the system" which are used in dialogic interaction in real time.

SUSANNE GÜNTHER ("Between emergence and sedimentation") shows that the unfolding of syntax in real time heavily relies on the (degree of) sedimentation of a construction. She argues that projection constructions such as *was ich wichtig finde, ist, dass* 'what I think is important is that' and *die Sache ist, dass* 'the thing is that' are open constructions. The study shows how projections can be deferred, i.e. not be dealt with immediately, remaining valid after the insertion of different linguistic material. Participants may take advantage of this deferral of the projected continuation as a cognitive and interactional space for thinking through what they are about to say. Thus, the openness of the format mirrors its interactive suitability as a resource for solving communicative tasks that range from integrating aspects of sequential context to indexing certain activities to managing interaction contingencies.

Building on a similar assumption, THIEMO BREYER, OLIVER EHMER and STEFAN PFÄNDER ("Improvisation, temporality and emergent constructions") focus on situated interaction in collaborative story-telling in which the participants subvert canonical grammatical formats in a playful mood. The blending of semantic and syntactic formats from constructional resources that are theoretically incompatible is referred to as "improvising

grammar". The authors suggest that the notion of improvisation can help to better model the indeterminacy or openness of linguistic structure. Improvisation brings along a moment of surprise – the very moment of speech production. Improvisation is attractive for the language users because of its unexpected character and for the theorist because it explains the *raison d'être* for some emergent structures which are composed of (constructional) fragments.

In their diachronic and synchronic comparative corpus study, "Verb-first conditionals in German and Swedish: convergence in writing, divergence in speaking", PETER AUER and JAN LINDSTRÖM show that verb-first (V1) conditionals are used hardly at all in spoken German, but very frequently in the written language; for Swedish, no such restriction regarding the use of V1 in oral language holds, and Swedish conditional V1 constructions are semantically more focussed on conditionality and thus less open to non-conditional readings; they might be considered more grammaticalised than the corresponding German construction. The authors further argue that V1 conditionals represent a case of locally specified constructions in emergent discourse. One of the reasons for the diachronically emerging differences between the two Germanic languages is that in German these constructions are "too open". They project too vaguely, since they have to compete with a large number of other colloquial V1 constructions. The construction therefore only survives in certain genres (i.e. legal texts) and speech activities (e.g. stating law-like regularities). Here, their projectional ambiguity is low, because the competing V1 constructions are exclusively used in the spoken language.

DAGMAR BARTH-WEINGARTEN and ELISABETH COUPER-KUHLEN's paper by means of VP constructions with *and* discusses *togetherness* as a contributor to structural emergence. The latter, they claim, implicates not only syntactic/semantic cohesion but also togetherness of action, and togetherness in prosodic/phonetic form, i.e. only those VP conjoins can fuse and become construction-like hendiadics such as *go ahead and X*, *sit down and X* (Hopper 2001a, 2001b) which are delivered as a single action and which exhibit a high degree of prosodic/phonetic integration. On this basis then, they argue that uni-actionality and prosodic/phonetic integration may also provide a tool for identifying incipient, i.e. emerging, constructions.

Yael MASCHLER's chapter "On the emergence of adverbial connectives from Hebrew relative clause constructions" looks into the incipient grammaticalisation of adverbial complementizers in Modern Hebrew. According to (prescriptive) Modern Hebrew grammars, the grammatical marking of relative clauses consists of two parts: a relativizer (*she*- 'that') and an obliga-

tory (though sometimes omitted) coreferential element. The lack of the second (resumptive) element in spoken discourse is the starting point of the emergence of new grammatical functions of the former relative construction. *She*- is being reanalyzed on-line as an adverbial connective. This process starts in syntactic contexts where the relativizer *she*- is preceded by adverbs of time, etc. *On (the day) (that they marry)* is then re-segmented as *(on the day that) (they marry)*. The re-segmentation through re-bracketing fuels ongoing grammaticalisation processes and thus leads to new adverbial connectives.

7 Conclusion

We conclude by summarizing the main points:

1. Real time

From an emergent perspective, it is necessary to consider syntax in real time. While producing their syntactic projects on-line, speakers constantly monitor the other participants' expectations and projections.

2. Sedimentation

These projections rely on expectations fueled by more or less sedimented routines. Despite a scepticism regarding the categorization of linguistic experiences and *longue durée* sedimentation in emergent grammar, we suggest that both are necessary and indeed the basis of on-line syntax.

3. Gestalt

These speakers' categorizations, however, are not always captured well in linguists' analyses of language structure. The categorizations seem to rely significantly more on gestalt-psychological similarity than on logic-semantic category systems.

4. Constant reanalysis

In interaction, recipients (re-)analyse the on-line sound chain, which sometimes leads to a re-bracketing of the units produced by the speaker.

5. Improvisation

There is no need to exclude routines from an emergentist approach to spoken syntax; rather, this approach presupposes categorized linguistic knowledge. An uncategorized set of previously heard utterances does not explain how improvising speakers play with expectations.

6. Mixed approach

The opposition of emergent and emerging constructions can be overcome. Emergent structures are the basis of emerging constructions.

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