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The status quo of research on discourse particles in syntax and semantics

What are discourse particles (DiPs), also known as modal particles (German *Modalpartikeln*) or downtoners (German *Abtönungspartikeln*)? Morphosyntactically, they are simply non-inflecting parts of speech. In this sense, they pattern with prepositions, complementizers, adverbs, focus particles and various other categories. However, DiPs are noticeably different from most of those elements: They show some similarities with the class of higher adverbs and with the class of focus particles. Their grammar is, nevertheless, quite different, as has often been noted: DiPs depend syntactically on sentence types and/or semantically on the speech act that a sentence type represents. DiPs are, however, extra-propositional themselves, in many ways. To give an example, consider rhetorical questions. In English, the question in (1) can be interpreted as a rhetorical question:

(1) *Who likes to be criticized?*

The expected answer *Nobody!* is already suggested by the question itself. The reason for this expectation is probably just world knowledge: Most people simply do not like to be criticized. However, there is no *linguistic* device in (1) which would enforce this interpretation. As a consequence, the more far-fetched interpretation as an information-seeking question is – at least technically – still possible. Compare (2):

(2) *Who wants to go shopping today?*

Here, it is not obvious at all that the question should be interpreted as a rhetorical question. It could be, technically, but such an interpretation seems to be rather far-fetched. Again, the interpretation depends on how we see the world: Since many people like to shop, the rhetorical question interpretation remains in the background.

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Consider now the following contrasts in German in which the b-examples involve the particle *schon* (lit. ‘already’).

- (3) a. *Wer wird gerne kritisiert?*
 who becomes gladly criticized
- b. *Wer wird schon gerne kritisiert?*
 who becomes SCHON gladly criticized
- (4) a. *Wer will heute einkaufen?*
 who wants today shop
- b. *Wer will heute schon einkaufen?*
 who wants today SCHON shop

(3a) compares to the English example in (1): World knowledge may easily lead the listener to interpret it as a rhetorical question. (3b), however, only allows for the rhetorical interpretation. The DiP’s role becomes even more obvious in (4): A rhetorical interpretation of (4a) appears to be even more far-fetched than for the English example (2). (4a) – *Who will go shopping today?* – is quite clearly an information-seeking question. When *schon* is used, however, as in (4b), it turns unambiguously into a rhetorical question.¹ This demonstrates that the DiP *schon* is a formal device in the formation of a special interrogative sentence type with a highly specific semantic interpretation. It seems, then, that DiPs do make contributions to the interpretation of sentences, e.g. in relation to sentence types – even though their semanto-pragmatic contributions are not always as easily described.

It could be suggested that expressions like *on earth* or *the fuck* are English equivalents of certain DiPs in German. Although there are some interesting similarities, the two kinds of expressions do not seem to be completely equivalent. Consider questions as in (5). These can still be considered as information-seeking questions – albeit very emotional (or rude) ones:

- (5) a. *Who on earth will go shopping today?*
 b. *Who the fuck will go shopping today?*

In the history of linguistics, DiPs have received relatively little attention. In some research traditions, they seem to have remained unidentified or ignored altogether. One reason for this may be that languages differ with respect to the occurrence of DiPs. German is known for its rich inventory of DiPs, whereas English

¹ König and Siemund (2007) go as far as calling *schon* an “assertive particle”, obviously because it is thought to turn a question into a declarative.

seems to lack them entirely, despite being a closely related language.² Another reason may be that linguistics is still more in the grip of the grammar of written language than many of its practitioners would like to admit. Since DiPs are dependent on speech acts, they tend to be dominant in spoken language more than in certain written styles. Note, however, that DiPs are clearly attested in certain genres and styles of written language, such as drama, modern prose and quite generally texts that use direct speech. In this sense, they are certainly not to be discarded as some sort of performance phenomenon (such as an overuse of tags, hesitation markers, etc.). A third (and maybe more serious) reason may be that they have so far presented researchers with distinctions that do not always fit neatly into those categories we have come to employ in established frameworks in formal syntax and semantics. From this point of view, DiPs either seem to be “too complex” to deal with, or researchers believe they can ignore them because they belong to “performative” aspects of communication – rather than to language as a formal system (core grammar). As the present volume attempts to demonstrate, both of these views are probably untenable. More recently, linguists have developed theories, methods and techniques to describe and explain DiPs’ functions and formal properties in such a way as to integrate them into formal grammatical and compositional semantic frameworks more than ever before.

The study of German DiPs has yielded an impressive body of work in a relatively short time. However in its earliest beginnings, this linguistic endeavor concentrated almost exclusively on the pragmatic or discourse functions of DiPs. Scientifically valid descriptions begin with the (quite insightful) remarks by von der Gabelentz ([1891] 1972). His observations later on became central to authors like Weydt (1969, 1977) who had a strong influence on the pragmatic turn of the 1970s. Strikingly, syntax and formal semantics were almost completely neglected in these early research contributions. While the choice to exclude syntactic and semantic properties was probably, to put it politely, very much in line with the overall aims of this line of research, it also must have seemed difficult, if not altogether impossible to the field in those times to actually get to grips with DiPs from a formal, syntactico-semantic point of view. According to Altmann’s (1980) review of Weydt (1977), there was a lack of satisfying semantic analysis which would be able to pick up on speech act theory and Gricean principles of conversation. Simultaneously, there was an increasingly critical evaluation of transformational

² König and Siemund (2007) argue that basic sentence types are similarly modified across languages by intonation, while other devices are language-specific. The example they mention are modal particles in German.

grammar. One point of criticism was that it was supposed to be inadequate for the description of DiPs.

Lacking the notion of functional categories, the syntax of the 1970s had to treat German DiPs as adverbs with peculiar properties, floating around in the sentence but refusing to move to peripheral positions (certainly leftwards, but in many cases also rightwards) the way that proper adverbs should. The DiPs' rather limited word order options had to be captured by optional syntactic movements. The semantic effects of these alleged movement transformation was not an issue at this point in the development of syntactic theory, given that (post-base) transformations had to be meaning-preserving. Some of these shortcomings could be avoided, however, when syntactic theories became more restrictive and started to ask for possible reasons of movement operations – e.g., in later developments in Government and Binding (GB) Theory. According to the GB framework (and even more prominently in subsequent versions of the theory), syntactic objects move into new positions *for a reason*. Possible reasons now included both purely formal and possibly also semantic considerations: For example, theta-marked arguments move for reasons of Case, which in turn is responsible for theta-visibility. *Wh*-phrases move into a left-peripheral *A'*-position because they are semantic operators which require propositional scope – which is encoded syntactically, via movement. Head movement operations can be argued to serve the extension of a local domain, allowing for certain formal operations to stretch over larger domains than would otherwise be possible. However, why would DiPs want to move around in the clause? The syntax of the 1980s and 1990s had no good answers.

In semantic research, the situation was not much better: The formal semantics of the 1970s was almost completely under the regime of model-theoretic truth-conditional semantics. Since DiPs do not contribute to truth conditions, they were not in the focus of contemporary research questions as a matter of cause. Although there was a substantial interest in speech acts, it was generally unclear how utterance meaning could be composed. An interesting development in the syntactic research of these days was the performative analysis suggested by Ross (1970) and Sadock (1974).³ None of these works was connected to DiPs, however.

The contribution of DiPs to sentence meaning was felt to be rather vague and therefore hard to grasp. As there was no leading idea about the mapping from syntax to speech acts, it appeared impossible to incorporate DiPs into

³ In the course of increasing research on the left clausal periphery, this line of research has recently seen a revival, cf. Speas and Tenny (2003), Haegeman and Hill (2013), Miyagawa (2010), among others.

compositional meaning computations. This left the field of DiP usage to (sociology-oriented) discourse analysis and efforts of applied linguistics, such as attempts to help along the study of German as a second language. Since the actual formal and functional contributions of DiPs were, however, unclear at the time, these efforts were not met with great success: Learners of German as a second language must get an idea of how to handle DiPs, since they will encounter them in large numbers in the productions of native speakers. Sadly, however, the only “solution” which was occasionally offered was to hope that intuitions about the proper use of DiPs would develop “automatically”, i.e. without explicit training, with increasing German L2 proficiency. However, there also were attempts to tackle the problem in a more organized fashion: Useful contributions came especially from the work of Gerhard Helbig (cf. the useful overview in Helbig [1988]). Some of these descriptions laid the ground work for proper empirical investigations of DiPs, as we know now – but only in hindsight.

Important research stimuli also came from the study of the diachronic development of DiPs (cf. Hentschel 1986; Abraham 1991; Wauchope 1991, among others). Virtually any part of speech which qualifies as a DiP has a counterpart from which it has developed historically, and which in many cases continue to coexist with the DiP. Examples would be English *just* (originally ‘morally upright’, ‘conforming to rules’) or German *eben* (lit. ‘flat’, ‘smooth’), *nur* (lit. ‘only’), *schon* (lit. ‘already’). DiPs are prime examples for processes of grammaticalization. More often than not, tracing their history leads to valuable insights about their synchronic characteristics – and can help to avoid the pitfall of mistaking the coexisting “doubles” for the DiPs.

Interest in formal investigations of DiPs was inspired by early work on focus particles (e.g. Jackendoff 1972; Altmann 1976; Jacobs 1983). Doherty (1987) and Jacobs (1991) can be seen as early formal attempts to account for the semantics of DiPs. DiP syntax was not a big issue at first. However, one of the most influential and comprehensive works on German DiPs and their combinatorial properties is Thurmair (1989). To this day, much of the research on German DiPs relies heavily on the observations first compiled in her work.

Inspired by Cinque’s (1999) exploration of the hierarchy of adverbs and his proposal that adverbs are generated in the specifiers of functional heads, Coniglio (2011) represented Thurmair’s generalizations in a cartographically organized hierarchy for German DiPs. Semantically, the syntactic hierarchy translates into scope relations. For many cases, however, it is not really clear how the order of DiPs can be explained in terms of scope. The reason for this state of affairs lies in the fact that the lexical meaning of DiPs is quite abstract and occasionally hard to pin down in a sufficiently precise way. It may also turn out that general points of criticism about strictly cartographic analyses of the adverb hierarchy (cf., e.g.,

Frey and Pittner 1998) carries over to the cartography of DiPs (cf., e.g., Struckmeier 2014a). Doherty (1987), Jacobs (1991), and Meibauer (1994) pointed out ways of accounting for discourse particles compositionally. Leading ideas suggest that DiPs share a core aspect of meaning with (occasionally truth-conditionally relevant) focus particles – but DiPs differ from focus particles fundamentally, too, in that they influence utterance-level properties rather than propositional, sentence-level meanings. A discourse-semantic approach helps address two important properties of DiPs: (i) their dependence on certain sentence types (cf. Abraham 1995) and (ii) their predominant occurrence in root-clauses. A valid rule of thumb seems to be that only root clauses are utterances because only they can encode the speech act carried out by the actual speaker (cf. modifications in Hooper and Thompson [1973], Heycock [2006], Krifka [2014]). Recent work by, e.g. Gutzmann (2015) and others, shows ways in which DiPs affect the expressive (i.e. “not-at-issue” or “use-conditional”) dimension in a multi-dimensional model of meaning. These developments extend earlier developments in formal semantics, aiming for a simultaneous representation of propositional meaning and implicatures (cf. Karttunen and Peters 1979). They provide a framework for the study of DiPs on a par with various other aspects of epistemic and emotional states of the speaker.

It is easily overlooked, however, that beyond their semantic properties, DiPs also have a special syntactic status. Much work in formal semantics is still carried out under the (often tacit) assumption that DiPs are operators on a par with higher adverbs. In many cases, this belief leads authors to skip the discussion of DiP syntax altogether. For instance, in Karagjosova’s (2004) dissertation on the meaning of German DiPs, their constitutive role in clause structure is not even mentioned. While such accounts may yield proper descriptions of meaning, they fall short of explaining how exactly DiPs actually come to contribute to the observed meaning effects, in a compositionally computable way. To point out but one problem that is generally overlooked: DiPs very often do not occur in positions in the clause that one would be tempted to associate with the “left periphery”. In German and in various other languages. Rather, they occur in what is arguably a lower, potentially vP-related position.⁴ Given the standard assumption that clause type and illocutionary force belong to the upper left clausal periphery (cf. Rizzi [1997] and subsequent work on split CP), this appears to hamper a compositional analysis. Reconsider for concreteness (3) and (4). The question here is, by which (non-stipulative) process the DiP *schon* actually manages, from its structural position in the middle field, to modify the interrogative mood of

⁴ For the interaction of DiPs with information structure see Grosz (2016).

the clause in such a way that the CP is interpreted as a rhetorical and not as a straightforward information-seeking question. Problems of this type have motivated logic-oriented approaches to argue for movement to such a position in terms of LF movement (cf. Abraham 1995, 2012; Zimmermann 2004, 2008). Such a move seems promising in some respects but also introduces new problems, especially with regard to new advances in syntactic theorizing. Firstly, the development of syntax within the Minimalist Program and especially the admission of more functional projections has provided new ways to describe how DiPs contribute to utterance meanings. Rizzi's (1997) work on the fine structure of the left periphery can be seen as an important inspiration for proposals that attempt to integrate DiPs into a split C scenario. However, on the other hand, the nature of the mechanism these proposals seek to employ is far from clear. As Bayer, Häussler, and Bader (2016) show, LF movement of DiPs leads to wrong predictions about their scope; they also show that DiPs in complement clauses would have to raise across CP – an unattested LF-operation, as far as we know.

As already pointed out above, the kinds of semantic accounts of DiPs which do not pay special attention to the syntax (and compositional semantics) of DiPs take them to be adverbs. Various properties of DiPs, however, raise doubts about the appropriateness of this assumption. In fact, contemporary models of syntax cast doubt on the structural status of DiPs: If DiPs are adverbs, they are maximal structural objects, i.e. phrases. Phrases, in German, however, can be moved to the sentence-initial position, or they can occasionally also be extraposed. Both topicalization and extraposition sharply differentiate between adverb phrases and DiPs: These peripheral movements can be observed with adverbs – but never with DiPs.⁵ DiPs, it seems, are completely “frozen” in place: They almost never leave their middle field-internal position. This fact, of course, follows immediately if DiPs are heads, not phrases: Functional heads, such as T or C, show exactly the same kind of behavior, even in free word order languages like German. There is additional evidence for the head status of DiPs (cf. Meibauer 1994;

5 (i) vielleicht as an adverb

a. *Renate ist vielleicht in die Oper gegangen*
 Renate is perhaps in the opera gone
 'Perhaps, Renate went to the opera.'

b. *Vielleicht ist Renate in die Oper gegangen. / Renate ist in die Oper gegangen vielleicht.*

(ii) vielleicht as a DiP

a. *DIE ist vielleicht eingebildet!*
 she is VIELLEICHT arrogant
 'Boy, is SHE arrogant!'

b. **Vielleicht ist DIE eingebildet! / *DIE ist eingebildet vielleicht!*

Coniglio 2005, 2011; Bayer and Obenauer 2011; Bayer 2012; Struckmeier 2014a; Bayer and Trotzke 2015, among others). Still, the issue has remained controversial so far. Certain DiPs (similarly to focus particles and expressions of negation) are syncategorematic and therefore seem to lend themselves more to a (phrasal) modifier than to a head analysis. With respect to German verb movement to C (yielding the well-known V2 order), it has repeatedly been argued that DiPs cannot be heads: If DiPs were heads, the argument goes, they would be predicted to act as interveners when finite verbs move across the DiP (head) position, on their way to C. V2-clauses and V1-clauses are, however, often root clauses – and thus, exactly the kinds of clauses that DiPs are attested in most often. This would seem to lend support to the idea that DiPs are phrasal elements, as e.g. proposed by Cardinaletti (2007, 2011). However, note that the idea that V2 movement would be barred by intervening heads can be called into question itself. There definitely exist alternative analyses that could derive the V2 property without problems with intervention by DiPs or negation.⁶

In strictly head final languages, we observe that DiPs are often clitic-like elements in clause-final positions or also phrase-final elements which attach to major constituents. We can refer here to work on Japanese (cf. Endo 2012; Saito & Haraguchi 2012), Bangla (a.k.a. Bengali) (cf. Dasgupta 1980, 1984, 1987, 2005; Bayer et al. 2014), and Hindi (cf. Shapiro 1999; Montaut 2002, 2012). In these languages, DiPs are generally on a par with “regular” functional heads such as interrogative particles. The evidence for their head status is therefore straightforward. Work on sentence-final DiPs in Chinese, which is typologically not head-final, and their relation to the clausal periphery can be found in Li (2006). One of the contributions to the present volume, the chapter by Pan and Paul, takes up this topic again.

This edited volume aims to provide contributions that add to the newly developing field: Some of the chapters collected here provide analyses of languages, diachronic stages of languages, or particle properties, which, we hope, will help

⁶ Since in V2 phenomena, only finite verbs move, the process could be analyzed as feature movement. Given that features are not categories, an X^0 DiP or an X^0 element of negation would not be an intervener. Bayer and Obenauer (2011) propose a distinction in terms of Relativized Minimality. Alternatively, it has been argued that the V2 property is actually caused by remnant vP-movement (Müller 2003). Similarly, Struckmeier (2014b, 2016) proposes that vP as a whole, a phrasal constituent, can move across DiPs in the German clause. Verbs contained in vP could thus be “smuggled” past an intervening DiP head in the clause. Head movement, such as in V2, has also been argued to be an entirely extra-syntactic displacement operation (Chomsky 1999). Thus, it might well turn out that the argument from intervention against the head status of DiPs lose their force.

avoid a view of DiPs that is based too narrowly on, say, modern-day German DiPs. Since roughly a decade, there is increasing work on DiPs in Romance languages, in particular in Northern Italian dialects, mainly Alto Adige (South Tyrol) and the Veneto (cf. Poletto 2000; Munaro and Poletto 2003, 2004, 2005; Coniglio 2008; Hack 2009; Cardinaletti 2015; Hinterhölzl and Munaro 2015; Manzini 2015). So far, however, there has been limited work in formal linguistics on particles in languages related to German (Dutch, cf. de Vriendt, Vandeweghe, and Van de Craen [1991], Vismans [1994], Foolen [1995]; Scandinavian, cf. Aijmer [1996] for Swedish, Davidsen-Nielsen [1996] for Danish). The English tradition speaks mainly of “discourse markers”, (cf. Fraser 1999 and Blakemore 2004) or “pragmatic markers” (Aijmer, Foolen, and Simon-Vandenberg 2006). These include elements with occasionally rather heterogeneous properties. For comparative work on English/German see Schubiger (1965), for Dutch/German see Foolen (2006). **Jónsson**, in his contribution to this volume, provides an interesting analysis of Icelandic particles in special exclamative sentence types, contributing to the cross-linguistic description of particles. **Scherf**, in this volume, analyses Swedish modal particles and proposes that the set of DiPs in this related language subdivides into classes that warrant a different syntactic treatment. **Petrova**, in her article to the current publication, analyses particles in Old High German, and reaches the (perhaps surprising) conclusion that despite many superficial similarities, there is no continuous development even of those DiPs that seem to have straightforward equivalents in later diachronic stages of German. **Abraham**, in his contribution to this volume, compares German DiPs with comparable elements from other languages, and proposes a syntacto-semantic analysis for the different cases. **Lühr**, in this volume, provides a diachronic description of particles in Old Indic, also arriving at different subclasses of elements that need to be carefully kept apart. **Paul** and **Pan**, in their contribution to this volume, present convincing evidence that “what you see is what you get” in Mandarin Chinese: Sentence-final particles in this language constitute the high functional heads syntactically that their semanto-pragmatic function requires, leading to an interesting conflict with word order constraints, such as the *Final-over-Final* constraint. It is, we believe, a healthy development to see research on DiPs cover languages other than German more and more: This will greatly broaden our views of the possible phenomena and their dependency on typological and parametric properties. The field of linguistics is now in a much better position to study DiPs than it has been in the first wave of intensive work in the 1970s and 1980s.

Both in the syntax and in the semantics of DiPs, we are also in a position to ask much more meaningful and detailed questions, and provide clearer answers than previously possible. In semantics, e.g., it is the inclusion of the expressive dimension of meaning in formal research and the acknowledgment of

multi-dimensionality of meaning. In syntax, it is the more finely calibrated clause structure, and the more sophisticated view of movement, agreement and related dependencies. In both fields, DiPs seem to be able to take a more central and more core-grammatical role than previously assumed. At least to some degree, we now have strategies, techniques and theoretical models that allow, at the very least, new investigations to be carried out. The volume at hand seeks to support this field of research: **Gärtner**, in his article, provides a syntactico-semantic analysis that rests on observations regarding the behavior of certain DiPs in root infinitivals. **Gutzmann**, in this volume, points out that uniform treatment of various DiPs in terms of their semantics may not be warranted, given the data he discusses. **Müller**, in her contribution to the volume, argues that the relative order of DiPs may change in German – contrary to many claims to the contrary. She argues that changes in DiP order reflect different contributions of DiPs to the utterances they occur in, in their discursive context. **Egg** and **Mursell**, in their article in this volume, take a more syntactic and compositional-semantic view: They argue that DiPs may be involved in more syntactic operations than previously assumed, which may help us understand how their semantic contributions to sentence types may come to pass. Last, but not least, **Viesel** contributes an argument to the volume that investigates attributive structures, which can also contain DiPs. From these special syntactic contexts, she argues, we can gain new insights about the compositional contribution of DiPs in clause structure.

We must stress here that research on DiPs in formal syntax and semantics has barely just begun – and uncontroversially so, since research on DiPs is connected to formal theoretical and comparative work in linguistics, which is only just now coming into reach. We hope, however, that from the new beginnings the authors in this volume present, this exciting young field will be able to draw some inspiration for the work that will, without a shadow of doubt, be necessary in the future.

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