

## HISTORICAL SYNTAX

### New insights into the syntax and semantics of complementation: Introduction to the special issue\*

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Dependent clauses are one of the prominent examples illustrating the ability to generate recursive structures by a computational mechanism. Three types of dependent clauses have usually been distinguished in a broader sense: (i) complement clauses, (ii) adverbial clauses, and (iii) correlative or relative clauses. The question of whether these three types can be reduced to a single abstract structure has inspired several fruitful lines of research, resulting in a mass of new empirical findings and leading to novel results. For example, many authors have proposed to analyze different types of dependent clauses as correlative/relative clauses (see Arsenijević 2009, Bhatt & Pancheva 2006, Caponigro & Polinsky 2011, Geis 1970, Haegeman 2012, Kayne 2014, Krapova 2010, Kratzer 2006, Moulton 2009, 2015, among many others). This special issue of the Historical Syntax section of *Language*, entitled *New insights into the syntax and semantics of complementation*, focuses in particular on the diachronic syntax and semantics of dependent clauses and shows to what extent complement, adverbial, and relative/correlative clauses may be related to each other.

In what follows, I briefly outline the most important findings of the contributions collected in this special issue and highlight how they contribute to the diachronic discussion on clause-linkage in general.

KATRIN AXEL-TOBER's article, 'The development of the declarative complementizer in German', is concerned with the issue of how the German subordinate complementizer *dass* 'that', which introduces declarative complement clauses and triggers verb-final position, evolved in the history of German.<sup>1</sup>

- (1) [<sub>main clause</sub> ... ] [<sub>embedded clause</sub> ... ]  
Er weiß, dass es ein Prozess ist.  
he know.3SG that it a process be.3SG  
'He knows that it is a process.'

(DeReKo, *Nürnberger Nachrichten*, 22 January 2015)<sup>2</sup>

In the example given in 1, the matrix predicate *wissen* 'know' embeds a finite CP-clause introduced by the declarative complementizer *dass* 'that'. The assumption has been that it developed from the nominative/accusative form of the neuter demonstrative pronoun *das* 'that'. Accordingly, the paratactic structure given in 2 is supposed to have given rise

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<sup>1</sup> The following abbreviations are used: 1/2/3: 1st/2nd/3rd person, FP: focus particle, PST: past tense, SG: singular, v.PTCL: verb particle.

<sup>2</sup> DeReKo is the 'German Reference Corpus' of the Institut für Deutsche Sprache (IDS) Mannheim.

to the hypotactic structure exemplified in 1, shifting the clause boundary (cf. Behaghel 1928, Ebert 1978, Horacek 1964, Lehmann 1988, Lernerz 1984, to name but a few).

- (2) [main clause ... ] [main clause ... ]  
 Er weiß das: es ist ein Prozess.  
 he know.3SG that it be.3SG a process  
 ‘He knows that: it is a process.’

The example in 2 contains the cataphoric demonstrative pronoun *das* ‘that’, occurring at the end of the first main clause and pointing forward to the content of the second main clause. Similar examples exemplifying the structures given in 1 and 2 are attested as early as Old High German (750–1050) (examples adapted from Axel-Tober, this issue).

- (3) [main clause ... ] [main clause ... ]  
 joh gizálta in sar tház, \ thiú sálida untar ín was  
 and tell.3SG.PST them at.once that the bliss among them be.3SG.PST  
 ‘and he at once told them that they were blessed’ (Otfriid II 2.8)
- (4) [main clause ... ] [embedded clause ... ]  
 Drúhtin Krist irkánta, \ thaz er mo wár zalta  
 Lord Christ realize.3SG.PST that he him truth tell.3SG.PST  
 ‘Christ, our Lord, realized that he was telling him the truth’ (Otfriid II 12.11)

Axel-Tober challenges the standard grammaticalization analysis of how *dass* ‘that’ emerged, offers a novel reanalysis scenario that is also applicable to other West Germanic languages, and provides abundant crosslinguistic evidence supporting the view that *dass* did not evolve directly from the cataphoric demonstrative pronoun *das* ‘that’ (see also Axel 2009 and Axel-Tober 2012:Ch. 2 for more details). Accordingly, the declarative complement clause developed from an explicative relative clause, as given in 5 (example adapted from Axel-Tober, this issue).

- (5) [main clause ... ] [explicative relative clause ... ]  
 Er tháhta odowila tház, \ thaz er ther dúriwart wás  
 he think.3SG.PST maybe that that he the gatekeeper be.3SG.PST  
 ‘maybe he thought this that he was the gatekeeper’ (Otfriid II 4.7)

Following this line of reasoning, the dependent *thaz*-clause given in 5 should be analyzed as an explicative relative clause. What is crucial about its status is that (i) it is headed by the relative particle *thaz*, which occupies the C-position, (ii) it is attached as an adjunct clause to a functional projection in the matrix clause, and (iii) its content refers to the correlative element *tház* ‘that’ placed in the matrix clause. According to Axel-Tober, such a structure gave rise to the development of complement clauses; see the Old High German example in 4 with a silent correlative element, in which the *thaz*-clause is taken to function as a complement clause and *thaz* ‘that’ is the declarative complementizer triggering the verb-final position. In other words, there are no differences between the source and the target structure on the surface. Several advantages follow from this kind of reanalysis. It not only shows that there is no need to assume a radical change of the sentence boundary (main clause → embedded clause); it also indicates that *thaz* was a C-head before and after the reanalysis, regardless of whether it introduced an adjunct or a complement clause.

The issue of relative and complement clauses is also addressed in the corpus-based article by ROLAND MEYER, ‘The C system of relatives and complement clauses in the history of Slavic languages’, who mainly focuses on the diachrony of dependent clauses in Russian, Polish, and Czech. Based on the work by Axel (2009) and Axel-Tober (2012, this issue), Meyer aims at examining to what extent the new analysis proposed

mainly for Germanic languages also holds for Slavic languages. He observes, following Večerka (1989–2003), that already in Old Church Slavonic (ninth–tenth centuries) the complex morpheme *iže* occurs as an agreeing relative pronoun, as a nonagreeing relative marker, and sometimes even as a subordinate complementizer. A similar situation can be observed in both the diachrony and the synchrony of Czech and Polish:

Early Polish and Czech data containing the descendants of *\*iže* thus add further support to hypothesis 1: forms of the inflected relative pronoun (stage 1) began to serve as nonagreeing relative particles (stage 2), and then also came into use as general complement clause subordinators (stage 3), which form the predecessors of the modern complementizers (stage 4). (Meyer, this issue, p. e102)

With respect to Russian, the diachronic situation appears to be more complex. Accordingly, the fact that Church Slavonic as well as Old East Slavic had different relative pronouns and complementizers considerably affected the complementation system of modern Russian. In order to describe the individual diachronic stages in Russian as well as the homonymy of elements introducing dependent clauses in the West Slavic languages, Meyer adopts Citko's (2004) classification of relative clauses, according to which relative clauses can be headed by a lexical noun phrase (= headed relative clauses) or by a 'light' pronominal correlate (= light-headed relative clauses), or can lack an overt external head (= headless relative clauses). What is crucial about Citko's account is the assumption that all three types of relative clauses are analyzed as DPs that select relativizing CPs as complements (see Axel-Tober's article for a similar analysis for Germanic languages). In this connection, Meyer proposes the following re-analysis steps.

- (6) a. light-headed relative clause:  
       [<sub>CP</sub> ... V [<sub>DP</sub> *to*<sub>i</sub> [<sub>CP</sub> *čto*<sub>i</sub> [<sub>C</sub> - ] [<sub>TP</sub> ... *t*<sub>i</sub>]]]]  
 b. relative particle + resumptive pronoun:  
       [<sub>CP</sub> ... V [<sub>DP</sub> *to*<sub>i</sub> [<sub>CP</sub> Op<sub>i</sub> [<sub>C</sub> *čto*]] [<sub>TP</sub> ... pron<sub>i</sub>]]]]  
 c. *that*-clause with correlate:  
       [<sub>CP</sub> ... V [<sub>DP</sub> *to* [<sub>CP</sub> [<sub>C</sub> *čto*] [<sub>TP</sub> ... ]]]]]  
 d. *that*-clause:  
       [<sub>CP</sub> ... V [<sub>CP</sub> [<sub>C</sub> *čto*] [<sub>TP</sub> ... ]]]

In general, he assumes that complement *čto*-clauses in Russian (6d) (cf. Knyazev 2016 and references cited therein for their distribution in present-day Russian) developed out of light-headed relative clauses (6a) via relatives introduced by the particle *čto* (6b) and *that*-clauses with a pronominal correlative element in the matrix clause (6c). His findings strongly support the analysis by Axel-Tober advocated in this issue.

In her contribution, 'The German causal conjunction *zumal*: Diachronic and synchronic analysis', IRA EBERHARDT investigates the most important properties of the subordinate causal conjunction *zumal* 'the more so as'/'especially since', as well as its development in German. A corpus example from present-day German is given in 7.

- (7) Eine Schwierigkeit stellt für die Asylbewerber zur Zeit  
 a difficulty constitute.3SG for the applicants.for.asylum to.the time  
 die Sprachbarriere dar, zumal keiner Deutsch spricht.  
 the language.barrier v.PTCL the.more.so.as nobody German speak.3SG  
 'A difficulty for the applicants for asylum constitutes at the moment the  
 language barrier, the more so as none of them can speak German.'

(DeReKo, *Burgenländische Zeitung*, 25 June 2015)

In this example, *zumal*, in addition to its causal meaning, presupposes a set of alternative causal relations to the matrix clause proposition. In comparison to other subordinate

causal conjunctions like *weil* and *da*, both meaning ‘because’ (cf. Antomo & Steinbach 2010, Frey 2016, Reis 2013, and references cited therein), *zumal* has not previously been investigated in the literature. Eberhardt fills this gap and addresses the question of the extent to which *zumal*-clauses are integrated into the matrix clause. Based on different diagnostic tests with regard to the internal and external syntax (cf. Haegeman 2003 and her subsequent work), Eberhardt compares *zumal*-clauses with other types of causal clauses in German and convincingly shows that *zumal*-clauses exhibit properties typical of both nonembedded and embedded clauses. In order to determine the syntactic status of *zumal*-clauses, Eberhardt makes use of the following tests: (i) verb position in the dependent clause, (ii) placement in the Spec,CP position of the matrix clause, (iii) matrix negation scope, (iv) matrix focus particle scope, (v) interrogative operator scope, (vi) intonational integration, (vii) ellipsis of the matrix clause, and (viii) association with a correlative element within the matrix clause. Based on these tests, Eberhardt concludes:

At first glance, the syntactic features of *zumal* clauses seem to be random with regard to their integration status. ... We can see that the majority of the tests indicate that *zumal* clauses should be regarded as non-embedded clauses ... However, there are still three features that are specific to embedded adverbial clauses. (Eberhardt, this issue)

Wiemann’s (2016) corpus-based work supports Eberhardt’s findings, and he discusses additional syntactic tests (e.g. the *und zwar*-supplement test), illustrating the extent to which *zumal*-clauses are embedded into their host clause. As *zumal*-clauses cannot be considered to be fully (un)integrated adverbial clauses, the question arises of how they developed and how their syntactic status can be accounted for diachronically. According to Eberhardt, the subordinate conjunction *zumal*, triggering verb-final position in the dependent clause, developed out of the combination of the additive scalar focus particle *zumal* and a causal conjunction. No grammaticalization process was involved at this point of development, though. The following example from the nineteenth century illustrates such a combination of *zumal* with *da*.

- (8) Sorgfältig verschloß er daher jeden Abend seine Thüren und  
 carefully close.3SG.PST he therefore every evening his doors and  
 Läden, zumal da nur einer seiner Sklaven dienstfähig war.  
 shops FP because only one of.his slaves fit.for.duty be.3SG.PST  
 ‘Therefore he was closing his doors and shops every evening carefully, in  
 particular because only one of his slaves was fit for duty.’  
 (Mannheimer Korpus Historischer Zeitschriften, *Das wohlfeilste Panorama des Universums  
 zur erheiternden Belehrung für Jedermann und alle Länder*, 1836, p. 23)

Following Eberhardt’s reasoning, *zumal* used as a subordinate C-head is a product of the recategorization of the focus particle *zumal* as having scope over a causal conjunction. In this context, the causal conjunction—for example, *da* in 8—could then be dropped and *zumal* as a C-head would begin triggering the verb-final position without having lost its focus interpretation, that is, presupposing a set of alternative causal relations to the matrix clause proposition. Accordingly, *zumal* is supposed to function as a causal C-head from the seventeenth century onward. Finally, Eberhardt compares the distribution of *zumal*-clauses with the use of causal subordinate clauses in the scope of an additive scalar focus particle, viz. *besonders weil* ‘especially because’ in present-day German, and concludes that both clause types exhibit the same syntactic and semantic behavior. In doing so, the author provides additional evidence supporting her diachronic hypothesis. The question of whether *zumal*-clauses can be analyzed as relative clauses remains open for future research.

In conclusion, the articles collected in this special issue not only contribute to the ongoing theoretical debate on clause combining in general, but through meticulous analyses of diachronic data, they also show that syntactic processes of language change are more complex than previously thought, that not every diachronic step triggering a change within a language system can be accounted for in terms of grammaticalization, and finally, that much more attention should be paid to how we describe and formalize language change processes.

## REFERENCES

- ANTOMO, MAILIN, and MARKUS STEINBACH. 2010. Desintegration und Interpretation: *Weil-V2-Sätze an der Schnittstelle zwischen Syntax, Semantik und Pragmatik*. *Zeitschrift für Sprachwissenschaft* 29.1–37. DOI: 10.1515/zfs.w.2010.001.
- ARSENJEVIĆ, BOBAN. 2009. Clausal complementation as relativization. *Lingua* 119.39–50. DOI: 10.1016/j.lingua.2008.08.003.
- AXEL, KATRIN. 2009. Die Entstehung des *dass*-Satzes—ein neues Szenario. *Koordination und Subordination im Deutschen* (Special issue of *Linguistische Berichte* 16), ed. by Veronika Ehrlich, Christian Fortmann, Ingo Reich, and Marga Reis, 21–41. Hamburg: Buske.
- AXEL-TOBER, KATRIN. 2012. *(Nicht-)kanonische Nebensätze im Deutschen: Synchrone und diachrone Aspekte*. Berlin: De Gruyter.
- BEHAGHEL, OTTO. 1928. *Deutsche Syntax: Eine geschichtliche Darstellung. Vol. 3: Die Satzgebilde*. Heidelberg: Winter.
- BHATT, RAJESH, and ROUMYANA PANCHEVA. 2006. Conditionals. *The Blackwell companion to syntax*, vol. 2, ed. by Martin Everaert, Henk Van Riemsdijk, Rob Goedemans, and Bart Hollebrandse, 638–87. Malden, MA: Blackwell.
- CAPONIGRO, IVANO, and MARIA POLINSKY. 2011. Relative embeddings: A Circassian puzzle for the syntax/semantics interface. *Natural Language and Linguistic Theory* 29.71–122. DOI: 10.1007/s11049-011-9121-9.
- CITKO, BARBARA. 2004. On headed, headless, and light-headed relatives. *Natural Language and Linguistic Theory* 22.95–126. DOI: 10.1023/B:NALA.0000005564.33961.e0.
- EBERT, ROBERT PETER. 1978. *Historische Syntax des Deutschen*. Stuttgart: Metzler.
- FREY, WERNER. 2016. On some correlations between formal and interpretative properties of causal clauses. *Co- and subordination in German and other languages* (Special issue of *Linguistische Berichte* 21), ed. by Ingo Reich and Augustin Speyer, 153–79. Hamburg: Buske.
- GEIS, MICHAEL. 1970. *Adverbial subordinate clauses in English*. Cambridge, MA: MIT dissertation.
- HAEGEMAN, LILIANE. 2003. Conditional clauses: External and internal syntax. *Mind & Language* 18.317–39. DOI: 10.1111/1468-0017.00230.
- HAEGEMAN, LILIANE. 2012. *Adverbial clauses, main clause phenomena, and the composition of the left periphery*. (The cartography of syntactic structures 8.) Oxford: Oxford University Press.
- HORACEK, BLANKA. 1964. *Kunstprinzipien der Satzgestaltung: Studien zu einer inhaltbezogenen Syntax der deutschen Dichtersprache*. Vienna: Böhlau.
- KAYNE, RICHARD. 2014. Why isn't *this* a complementizer? *Functional structure from top to toe: A festschrift for Tarald Taraldsen* (The cartography of syntactic structures 9), ed. by Peter Svenonius, 188–231. Oxford: Oxford University Press.
- KNYAZEV, MIKHAIL. 2016. *Licensing clausal complements: The case of Russian čto-clauses*. Utrecht: Universiteit Utrecht dissertation.
- KRAPOVA, ILIJANA. 2010. Bulgarian relative and factive clauses with an invariant complementizer. *Lingua* 120.1240–72. DOI: 10.1016/j.lingua.2009.08.002.
- KRATZER, ANGELIKA. 2006. Decomposing attitude verbs. Talk presented at the Hebrew University of Jerusalem. Online: <http://semanticsarchive.net/Archive/DcwY2JkM/attitude-verbs2006.pdf>.
- LEHMANN, CHRISTIAN. 1988. Towards a typology of clause linkage. *Clause combining in discourse and grammar*, ed. by John Haiman and Sandra A. Thompson, 181–225. Amsterdam: John Benjamins.

- LENERZ, JÜRGEN. 1984. *Syntaktischer Wandel und Grammatiktheorie: Eine Untersuchung an Beispielen aus der Sprachgeschichte des Deutschen*. Tübingen: Max Niemeyer.
- MOULTON, KEIR. 2009. *Natural selection and the syntax of clausal complementation*. Amherst: University of Massachusetts, Amherst dissertation.
- MOULTON, KEIR. 2015. CPs: Copies and compositionality. *Linguistic Inquiry* 46.305–42. DOI: 10.1162/LING\_a\_00183.
- REIS, MARGA. 2013. 'Weil-V2'-Sätze und (k)ein Ende? Anmerkungen zur Analyse von Antomo & Steinbach (2010). *Zeitschrift für Sprachwissenschaft* 32.221–62. DOI: 10.1515/zfs-2013-0008.
- VEČERKA, RADOSLAV. 1989–2003. *Altkirchenslavische (altbulgarische) Syntax*. Freiburg im Breisgau: Weiher.
- WIEMANN, FRIEDRICH. 2016. Die regionale Verbreitung der kausalen Konjunktion *zumal*: Eine Korpusanalyse. Term paper for the graduate course 'Adverbialsätze im Deutschen: Synchrone und diachrone Aspekte', Universität Potsdam.

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