

Outline of the volume

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This volume provides novel insights into the micro- and macro-variation of causal clauses from a cross-linguistic perspective. It mainly focuses on Germanic languages including Dutch, English, German and Icelandic, but it also discusses causal relations in Mandarin Chinese and Japanese. The findings gained here are of synchronic and diachronic nature, and serve as a valuable benchmark for a better understanding of how causal relations are encoded linguistically.

In what follows, we summarize the most important findings of the chapters put together in the present volume, and show how they contribute to the current research on causal clauses and adverbial clauses in general.

This volume is divided into three parts: i) setting the scene ii) synchronic variation, and iii) diachrony. Part I contains an introduction by the volume editors. In the chapter, *Adverbial clauses and their variation. The case of causal clauses*, **Łukasz Jędrzejowski & Constanze Fleczonek** set the scene, elaborating on the extent to which causal clauses have been investigated in the literature and pointing out some open questions as well as conceivable directions that might be worth pursuing in future studies.

Part II consisting of seven chapters by Frey, Pittner, Schönenberger & Haegeman, Hoek & Scholman, Angantýsson & Jędrzejowski, Pan & Zhu, and Endo investigates synchronic variation of causal clauses at the syntax-semantics interface. We outline their findings in turn.

In his enlightening chapter, *Types of German causal clauses and their syntactic-semantic layers*, **Werner Frey** proposes a novel analysis of causal clauses focussing on four patterns from German: *weil*-clauses with the finite verb in situ,¹ (1a), *da*-clauses, (1b), verb first clauses containing the discourse particle *doch*, (1c), and consecutive *weshalb*-clauses, (1d):²

- (1) a. Max hat gewonnen, weil er sehr gut gespielt
 Max have.3SG win.PTCP because he very well play.PTCP
 hat.
 have.3SG
 ‘Max won because he played very well.’
- b. Max hat gewonnen, da er sehr gut gespielt
 Max have.3SG win.PTCP since he very well play.PTCP
 hat.
 have.3SG
 ‘Max won since he played very well.’
- c. Max hat gewonnen, hat er doch sehr gut
 Max have.3SG win.PTCP have.3SG he DISC.PART very well
 gespielt.
 play.PTCP
 ‘Max won because he played very well.’
- d. Max hat sehr gut gespielt, weshalb er
 Max have.3SG very well play.PTCP which:is:why he
 gewonnen hat.
 win.PTCP have.3SG
 ‘Max played very well, which is why he won.’

The examples given in (1a)–(1d) have one main property in common, viz.

¹For *weil*-clauses with the finite verb in the second position, the interested reader is referred to Frey (2016) and Frey & Masiero (2018).

²Abbreviations used in this outline: 1/2/3 – 1st/2nd/3rd person, ACC – accusative, DISC.PART – discourse particle, INF – infinitive, NEG – negation, PFV – perfective, PL – plural, PST – past tense, PTCP – past participle, SFP – sentence final particle, SG – singular.

they introduce a subordinate causal relation. However, they differ not only on the surface (consider, for example, the presence of the complementizer *weil* ‘because’ in (1a) and *da* ‘since’ in (1b) or of the *wh*-word *weshalb* ‘which is why’ in (1d) vs. the absence of any overt specific element introducing a subordinate dependency relationship like in (1c)). As Frey persuasively argues, these clause types also differ at the syntax-semantics interface. Mainly, he adopts the approach developed by Krifka (2018, to appear) decomposing a speech act into a proposition, a judgement, a commitment, and a speech act, which, in turn, are represented in syntax by TP, JP, ComP, and ActP, respectively. Examining selected properties of the subordinate clauses exemplified in (1a)–(1d), Frey observes that i) *weil*-clauses with the finite verb in situ are TPs covered by a CP-shell, ii) *da*-clauses also covered by a CP-shell are JP adjuncts interconnected with a judgment, iii) verb first clauses containing the discourse particle *doch* and consecutive *weshalb*-clauses are ActP adjuncts having their own illocutionary force. They cannot be syntactically embedded and internally they contain TP, JP and ComP. Finally, Frey embeds his illuminating findings into the general typology of adverbial clauses divided into central, peripheral and non-integrated adverbial clauses, and connects them with the well-known domains of interpretation (content vs. epistemic vs. speech act) developed by van Dijk (1977), Morreall (1979), Schiffrin (1987), and further promoted by Sweetser (1990). He argues that central adverbial clauses encoding propositions only allow interpretations in the content domain, whereas peripheral adverbial clauses associated with judgements permit interpretations in the content or in the epistemic domain. Non-integrated adverbial clauses, in turn, are not – according to Frey – restricted to any particular domain.

A detailed analysis examples such as (1c) is provided in **Karin Pittner**'s chapter *Pragmatic subordination: Causal clauses with verb first position in German*. Based on her previous research (cf. Pittner 2007, 2011), Pittner persuasively shows that causal clauses with the finite verb in the first position and the discourse particle *doch* are unable to form constituents of the clause they are related to, nor can they be in the scope of a focus operator or be taken up by any correlative elements. Her research leads to the conclusion that such causal clauses are pragmatically subordinated, although at the same time they do not exhibit characteristics of syntactic subordination. Pittner's analysis supports Curme's (1922) observation, according to which a verb first causal clause can be replaced by a causal *denn*-clause:

- (2) a. Er kann es nicht bestreiten, hatten es
 he can.3SG it.ACC NEG deny.INF have.3PL.PST it.ACC
 doch alle gesehen.
 DISC.PART all see.PTCP
 'He cannot deny it because everybody has seen it.'
- b. Er kann es nicht bestreiten, denn alle hatten
 he can.3SG it.ACC NEG deny.INF because all have.3PL.PST
 es gesehen.
 it.ACC see.PTCP
 'He cannot deny it because everybody has seen it.'

(Curme 1922: 597)

Scheffler (2013: 50–93) shows that *denn*-clauses are pragmatically subordinated, but that they also exhibit no syntactic integration properties. We then end up with two non-integrated clause types encoding a causal relation underpinning Curme's (1922) general intuition. But how does the causal meaning arise in (1c) and (2a) when no conjunction is available? In essence,

Pittner argues that the causal meaning comes about via an inference linked to three factors: i) verb first position signaling a close connection to the matrix clause and a diminished assertive force, ii) the unstressed discourse particle *doch* indicating that the information given is uncontroversial but it is assumed not to be taken into account by the recipient, and iii) the postposition of the subordinate clause itself. Finally, Pittner outlines a possible diachronic development of verb first causal clauses.

Frey's analysis of causal clauses is also adopted in the chapter *English rationale since and a reassessment of the typology of adverbial clauses* by **Manuela Schönenberger & Liliane Haegeman**, who examine adverbial clauses in English headed by *since* and *as*, and compare them with selected causal clause types in Dutch. Schönenberger & Haegeman discuss empirical arguments showing that the bipartite distinction between central and peripheral adverbial clauses originally proposed in the seminal work by Haegeman (1984, 2003, 2010, 2012) should be extended to include a third type of adverbial clauses, i.e., non-integrated adverbial clauses referred to as speech-event modifiers. Teasing apart causal clauses from temporal clauses and analyzing them either as central or as peripheral adverbial clauses, Schönenberger & Haegeman elaborate on cases like (3) where the *since*-clause provides a motivation for the speech event itself:

- (3) I possibly have rose-tinged memories because I'd just attained my first girlfriend and earned and spent my first own money (on a small bottle of *Brut for Men* by Febergé, since you ask, and, yes, it still astonishes me how the acquisition of the second did not more violently militate against the acquisition of the first).

To a certain extent, speech-event modifiers – as Schönenberger & Haegeman argue – behave like peripheral adverbial clauses. They are not in the scope of temporal, modal, focus and negation operators of the matrix clause, nor can they constitute a reply to a *why*-question, (4), leading to the conclusion that they are not part of the narrow syntax:

- (4) A: Why has Fabergé *Brut for Men* been your favourite scent?
B: #Since you are asking.

On the other hand, speech-event modifiers are taken to differ from peripheral adverbial clauses in two main respects: i) They cannot be embedded. ii) In strict verb second languages they cannot form the first constituent of a verb second clause, i.e., they cannot occupy the prefield position. Finally, Schönenberger & Haegeman elaborate on licensing of root phenomena in adverbial clauses and on how their approach differs from that outlined by Frey in Chapter 2 in this volume.

In their corpus-based chapter, *Expressing non-volitional causality in English*, **Jet Hoek & Merel C.J. Scholman** investigate causal relations in English with a specific focus on exploring the suitability of *because* to mark non-volitional content relations, and how they are translated into Dutch using *doordat* (usually marking non-volitional causal relations), *omdat* (marking content relations), and *want* (marking epistemic and speech act relations). In doing so, they divide Sweetser's (1990) content domain into non-volitional, (5a), and volitional content relations, (5b) (cf. also Sanders et al. 1992, Pander Maat & Degand 2001, Stukker et al. 2008 for more details):

- (5) a. The roof caved in because the storm had severely weakened

its structural integrity.

- b. The delivery guy quit because the restaurant got rid of their employee discount.

Whereas in (5a) the cause-effect relation does not involve a volitional action by a thinking actor as a storm leads to the roof collapsing, in (5b) quitting is a volitional action by the delivery guy. In general, Hoek & Scholman observe that i) *doordat* is much less often used in translations than *omdat* and *want*, ii) non-volitional relations are often expressed in English by employing a connective or cue phrase (e.g. *when*) that specifies the content aspect of the coherence relation but leaves the causal aspect of the relation underspecified, and iii) in many English cases a non-volitional causal relationship is expressed in a structure consisting of only a single discourse segment, e.g. a preposition. Hoek & Scholman conclude the chapter with compelling follow-up questions.

Relating to the chapters by Frey and Schönenberger & Haegeman, **Ásgrímur Angantýsson & Łukasz Jędrzejowski** examine causal clauses in Icelandic. In their chapter, *Layers of subordinate clauses: A view from causal af því-að-clauses in Icelandic*, Angantýsson & Jędrzejowski focus on subordinate clauses introduced by *af því að* and show that a particular conjunction introducing a subordinating causal relation is not restricted to a single semantic domain. Instead, it can be interpreted on the content, epistemic or speech act level, as (6) and its English paraphrases clearly illustrate:³

³Depending on the conjunction one or another interpretation is usually preferred, though other less marked or natural interpretations are not excluded, cf. Hoek & Scholman this volume, but see also Charnavel (2017).

(6) Frænka þín kemur í heimsókn af því að þú hefur
 aunt your come.3SG in visit because you have.2SG
 (líklega) alltaf verið að spyrja eftir henni.
 presumably always been to ask after her

i) content level: ‘Your aunt is coming to visit us because you have been asking for her all the time.’

ii) epistemic level: ‘Your aunt is coming to visit us, since you presumably have been asking for her all the time.’

iii) speech act level: ‘(I’m telling you that) your aunt is coming to visit us, since you have been asking for her all the time.’

Based on different syntactic tests involving variable binding, movement to the left periphery of the matrix clause, syntactic embedding, clausal anaphora, and verb position in the subordinate clause, Angantýsson & Jędrzejowski show that *af-því-að*-clauses can be analyzed as central, peripheral or non-integrated adverbial clauses adjoining as TP, JP or ActP adjuncts, respectively, in the sense claimed by Krifka (2018, to appear) and further developed by Frey (2020, to appear). Furthermore, Angantýsson & Jędrzejowski provide arguments supporting Frey’s (2016) claim, according to which the higher the adjoin position of the causal clause is the more interpretative freedom it has. As Angantýsson & Jędrzejowski demonstrate, this claim holds for *af-því-að*-clauses too, which are not restricted to any particular interpretation if they adjoin at ActP.

Victor Junnan Pan & Bin Zhu examine in their chapter, *On the syntax of causal clauses in Mandarin Chinese*, causal relations encoded by five conjunctions in (the history of) Chinese: i) 因為 (*yīnwèi*) ‘because’, ii) 由於 (*yóuyú*) ‘due to’, iii) 因此 (*yīncǐ*) ‘because (of this)’, iv) 因而 (*yīn’ér*)

‘as a result’, and v) 所以 (*suǒyǐ*) ‘so’. Pan & Zhu convincingly show that based on island effects the conjunctions in i)–v) can be analyzed as complementizers, although syntactically some of them also exhibit properties characteristic of prepositions. Subsequently, Pan & Zhu investigate word order phenomena and focus on the opposition causal clause > consequent clause vs. consequent clause > causal clause, whereby “>” means ‘precedes’. The received wisdom has it that the former word order has been analyzed as the base word order in Chinese, whereas the latter option has been treated as right-dislocation or as ‘afterthought’ construction for emphasis or completion purpose (see Pan & Waltraud 2018 for more details). Pan & Zhu challenge this view and claim that particular word order restrictions depend on the conjunction used and the according semantic domain; for example, *yóuyú* exhibits more restrictions than *yīnwèi* does, and causal clauses having an epistemic interpretation have to follow the matrix clause, strongly suggesting their base position after the consequent clause, cf. the minimal pair in (7) for the conjunction 因為 (*yīnwèi*) ‘because’:

- (7) a. Zhāngsān hěn ài tā tàitai, yīnwèi tā zuìzhōng hái shì
 Zhangsan very love 3SG wife because 3SG finally still
 liú-xià-lái le.
 stay SFP
 ‘Zhangsan loves his wife very much, because in the end he
 stayed.’
- b. *Yīnwèi Zhāngsān zuìzhōng hái shì liú-xià-lái le, tā hěn
 because Zhangsan finally still stay PFV 3SG very
 ài tā tàitai.
 love 3SG wife
 Intended: ‘Because Zhangsan stayed in the end, he loves his
 wife very much.’

In the final part of their chapter, Pan & Zhu provide abundant evidence demonstrating that causal clauses and consequent clauses can be composed by different sentence types having different types of illocutionary force. The findings are rounded off by an analysis of selected sentence final particles taking causal clauses as their complements.

A different topic is taken up by **Yoshio Endo** in his chapter *Three ReasonPs: A view from free adjuncts*. Endo examines free adjuncts in English and Japanese with a reason interpretation. Crucial examples from English follow in (8):

- (8) a. Being a master of disguise, Bill would fool everyone. Stump
(1985: 41)
- b. Having a lot of money in the bank, John could enjoy vacation.
Higginbotham & Ramchand (1997: 8)

Essentially, Endo observes that free adjuncts headed either by *being*, (8a), or by *having*, (8b), receive a causal interpretation, and embeds his findings into the cartographic approach of syntactic structures pioneered by Cinque (1999, 2017) and Rizzi (1997, 2001, 2006). He mainly argues for the existence of three functional projections hosting different reason expressions, abbreviated as ReasonPs:

- (9) ReasonP3 (free adjunct) > IntP (*what*_i) > ReasonP1 (*why*) > NegP >
ReasonP2 (t_i *for*)

Following Shlonsky & Soare (2011), Endo assumes *why* to be base-generated in ReasonP1, a high functional projection associated with the CP domain.

ReasonP2 placed below NegP is taken to be a base position for *what for*, from where *what* moves to IntP (cf. Rizzi 2001 and Endo 2015 for more details about IntP). Finally, ReasonP3 is proposed as a host for free adjuncts having a reason interpretation. Correspondingly, *being* and *having* are analyzed as heads of ReasonP3. Discussing root phenomena in Japanese, Endo also explores the possibility of splitting up ReasonP3 into the central type and the peripheral type in the sense claimed by Haegeman (1984, 2003, 2010).

The last two chapters by Eberhardt & Axel-Tober and Speyer & Voigtmann making up Part III are concerned with diachrony and diachronic variation of causal clauses. As they both focus on German, we order them chronologically.

Ira Eberhardt & Axel-Tober's chapter, *On the divergent developments of two German causal subjunctives: Syntactic reanalysis and the evolution of causal meaning*, provides novel diachronic insights into how causal clauses emerge and develop. The main focus is on two German C-heads: *weil* 'because', (10a), and *zumal* 'the more so as', (10b):

- (10) a. Wir können Schlittschuh laufen, weil der See
 we can.1PL ice:skate run.INF because the lake
 zugefroren ist.
 freeze.PTCP be.3SG
 'We can ice-skate because the lake is frozen.'

(Küper 1991: 137)

- b. Die Gäste waren zufrieden, zumal sie ihren
 the guests be.3PL.PST satisfied the:more:so:as she her
 besten Schoko-Kuchen gebacken hatte.
 best chocolate-cake bake.PTCP have.3SG.PST
 'The guests were satisfied, the more so as she had made her
 best chocolate cake.'

(Eberhardt 2017: e66, ex. 1)

Importantly, Eberhardt & Axel-Tober challenge the common view on how C-heads come into being (cf. Szczepaniak 2011: 175–178, **Weiss2020** **Weiss2020**, 2020), and show persuasively that the genesis of *weil* and *zumal* involves only a change in the internal syntactic structure of the respective CP domain, and that no changes take place with regard to the external syntax and semantics. Concerning *weil*, Eberhardt & Axel-Tober argue that its development consists of two main steps. First, (*al*) *die wile* ‘all the time’ is taken to be a relative adverb occupying the SpecCP position of a head-internal free relative *daz/unde/so/∅*-clause, involving a reanalysis of a syntactic specifier as a head (cf. van Gelderen 2004 for many cross-linguistic examples). In this position, the adverb is reanalyzed as a temporal complementizer replacing the older (c)overl complementizers: *daz/unde/so/∅*. Second, as a C-head it undergoes a semantic change from a temporal to a causal element, which has been attested as a well-known grammaticalization path, cf. Kuteva et al. (2019: 425) for a typological overview. As for *zumal*, Eberhardt & Axel-Tober claim – mainly based on the findings reported in Eberhardt (2017) – that its origin is to be traced back to the adjacency of the additive scalar focus particle *zumal* and a causal clause being in the scope of this particle. Over time *zumal* itself started to be employed as a C-head and triggering the verb-final position without losing its focus interpretation, resulting in the hand-in-hand reanalysis proposed in Bayer (2001). What both scenarios have in common, as Eberhardt & Axel-Tober point out, is that the development of new elements in the C⁰-position happens through the fusion of the

properties of the *new* and the *old* C⁰-elements, and that, more importantly, after the reanalysis the new C⁰-element has the subordinating force of the *old* C⁰-element as well as the semantic content of the *new* and the *old* C⁰-element.

A further development of causal clauses in German is investigated in the corpus-based chapter by **Augustin Speyer & Sophia Voigtmann**, *Searching factors for the integration of causal clauses in the history of German*. Mainly, it is concerned with causal clauses and their information structure properties in older stages of German, in particular in Middle High German (1050–1350), Early New High German (1350–1650) and New High German (1650–1900). Linking up with the previous findings reported in Speyer (2011, 2015), Speyer & Voigtmann show that the informational status of a causal clause interacts with the verb position (verb final vs. verb second) in the subordinate clause. As for the information status, they elaborate on two statistical tools: i) comparing the proportion of given and new information, ii) measuring the cumulative surprise. It follows, for instance, that information structural parameters such as givenness and salience affect whether a causal clause is integrated or not. One of the observations made by Speyer & Voigtmann is that integrated causal clauses have a significantly higher portion of given referents, especially topics, in comparison to independent causal clauses. Another interesting conclusion is that causal clauses with high information density are preferably implemented as independent. Regardless of whether tool i) or ii) was applied, the association of a low amount of information and clause integration could be established for all language periods under investigation. Remarkably, related correlations can be also observed in other types of subordinate

clauses, e.g., in relative clauses (cf. Voigtmann & Speyer (2021) for further details).

The contributions put together in this volume offer novel typological and diachronic perspectives on causal clauses across different dimensions. At the same time, they call for a more fine-grained analysis of subordinate clauses encoding other adverbial relations in general. With this volume, we hope to have taken a further step into this direction.

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