# The topology and word structure of connectors: language-specific and cross-linguistic principles

## 1. Introduction

The coding of, say, temporal, conditional or causal relations between states of affairs is a cross-linguistic phenomenon. The means of expression can vary greatly from language to language but also within an individual language, from subordinate adverbial clauses (cf. Hetterle 2015) via the relation of independent clauses using coordinators and adverbs to adpositional phrases. The two-volume "Handbook of German sentence connectors" (Handbuch der deutschen Konnektoren, HDK, with parts HDK-1 and HDK-2) provides a comprehensive description of linking words, or connectors, which can be divided into two groups in German, namely those occurring in subordinate constructions (like *als, wenn, weil*, for example) and those occurring in coordinate constructions (like *und, dabei, deshalb*). It also presents a new classification for the 300 or so expressions which have been identified, analysing these from a syntactic (HDK-1) and a semantic/pragmatic (HDK-2) perspective.

The question is whether the analyses and results in the HDK can also be fruitfully applied to other languages, particularly other European languages, and if so, with what modifications or adaptations. This paper pursues the question with the aid of two case studies, the first one on the interaction of linear structure and the classification of connectors (cf. section 2) and the second on the structural relationship between connectors and other function words, namely prepositions (cf. section 3). In doing so I start from the premise that, when proceeding in a methodologically reflective manner, an analysis which focuses explicitly on a specific language, namely German, as is the case in the HDK, can be an appropriate starting point for investigating divergences and convergences between languages.

## 2. Interlingual comparability of topological classifications using the example of German and English

The inventory of connectors in the HDK is classified according to the topological field model of German clauses; as a result, this classification cannot be applied directly to other languages such as English. This is particularly true for the so-called 'adverbial connectors'. These *konnektintegrierbare* expressions (expressions which may be integrated in one of their connects or clauses) can be used in various linear positions, ranging from 'zero position' (in the 'left outfield') to the 'forefield', 'midfield' and 'endfield' (translations of the German *Vorfeld*, *Mittelfeld* and *Nachfeld* respectively), whereby the forefield and midfield slots are especially relevant for the classification. Some adverbial connectors, like *allerdings* or *also*, for example, can be used in all slots (*nicht positionsbes-chränkt*); they can be placed in the forefield (cf. (1)) but also in the so-called 'post-first position' (cf. (2)) and in the midfield (cf. (3)). Others, like *auch* or *trotzdem*, for example, are not to be placed in the post-first position (*nicht nacherstfähig*) while others, like *aber*, *nämlich* or *sogar*, are not to be placed in the forefield (*nicht vorfeldfähig*) but can appear in zero position (cf. (4)):

- (1) Allerdings hat Maria diesen Brief geschrieben.
- (2) Diesen Brief allerdings hat Maria geschrieben.
- (3) Diesen Brief hat Maria **allerdings** geschrieben.
- (4) Aber Maria hat diesen Brief geschrieben.

The adverbial connectors in German have an English equivalent in what Huddleston/Pullum (2002, pp. 775–779) classify as connective adverbs, which, in their function as connective adjuncts, can appear in various positions in a clause, as is the case in German. Thus, it stands to reason that the (partial) correlation of fields and positions in the German clause with semantic and information-structural functions like establishing coherence, thematic structure, the background-foreground opposition or local focus could also hold for the linear positions in the English clause in a similar manner. This could, in turn, imply that there is also a partially equivalent distribution for German adverbial connectors and connective adverbs along the linear structure of the language concerned. Admittedly, the topological fields of German are pitted against the rigid subject-verb-object (S-V-O) word order pattern of English. Connective adverbs (and other adjuncts) are positioned in relation to these three pillars of English word order, namely 'front' (before S), 'central' (between S and V, with various sub-categories) and 'end' (after O). Note, however, that the front position is not comparable with the forefield, neither is the central position comparable with the midfield nor the end position with the endfield. In fact, a detailed comparison of potential slots for adverbial connectors and connective adverbs reveals the following tendencies. a) The front position, which is marked for other constituents, iconically serves to establish coherence, more specifically the link with the pre-text, in a similar fashion to the (as yet undifferentiated) clause-initial position in German, and is therefore quite frequent with connective expressions in both languages. b) With connective expressions, due to the 'subject first restriction' in English, the front position takes on the semantic and information-structural functions which are distributed over the zero position and forefield in German. Compare (5) versus (1) and (4). c) Similarly and conversely, due to the 'subject first restriction', the German 'post-first position' is distributed over the 'postfront' and 'immediate post-subject' position in English, as illustrated by the examples in (6) and (7) taken from the BNC versus their German translations. d) While an endfield position is always marked for adverbial connectors in German, the end position is quite common for connective adverbs in spoken English. The non-existent brace construction, (Satzklammer) resulting in little scope for central placement (in contrast to the extensive midfield in German) is responsible for this contrast (cf. (8a), (8b)).

- (5) However, Mary wrote this letter. / But Mary wrote this letter.
- (6a) On the coast the weather is fantastic with day after day of hot sunshine, **in the mountains however** the air cools quickly and until the end of June you can still find snow on the mountain tops.
- (6b) ..., in den Bergen hingegen kühlt die Luft schnell ab ...
- (7a) The French by contrast seldom built grand stations in north Africa.
- (7b) ... Die Franzosen dagegen bauten selten große Bahnhöfe in Nordafrika.
- (8a) Mary will write this letter anyway / nevertheless.
- (8b) Maria wird diesen Brief ohnehin / nichtsdestoweniger schreiben.

Despite certain parallels, it is clear that the positioning of connectors (at the beginning of a clause) is relatively independent of the syntactic function of neighbouring clause-level constituents in German; this is not the case in English. This does not only make it impossible to transfer the topological sub-classification of German connectors to the English system but also presupposes a different classification strategy, namely one which is sensitive to the context.

### 3. Connectors and other function words: German, English and French

The same semantic relation, as shown by *seitdem*, *seit* (*dass*) and *seit*, for example, can sometimes be expressed by adverbial connectors and subjunctors but also by prepositions, which are not explicitly dealt with in the HDK. There are similar word-structural relations between semantically equivalent expressions in other European languages as well. The three categories differ across languages in the absence/presence and, if applicable, in the syntactic form of their 'internal argument', i.e. a dependent or governed expression. For German subordinating connectors, the HDK distinguishes between "normal" subjunctors and 'postponers', which introduce an obligatorily following subordinate clause (like *wobei*, *weswegen*, for example). Note, too, that in German, subordinate clauses are verb final (*Verbletztstellung*). Consequently expressions in the three categories have the following characteristics (features peculiar to German are indicated in italics):

Adverbial (connector): zero valency Preposition: monovalent, governing a NP Subjunctor/*Postponer*: monovalent, governing a *verb-final* (*Verbletztstellung*) clause

Based on German, English and French, and with a few examples from Polish, a total of seven different patterns can be observed for the word-structural relations between the three categories. The table below gives pertinent examples and also lists the languages in which the patterns occur; frequent or characteristic patterns are indicated by the abbreviation in bold.

	Pattern	Example	Language(s)
(i)	Formation of a category-specific complex	außerdem – außer – außer dass	GER, POL
(ii)	Formation of a category-specific complex (postponer as a special case)	deswegen – wegen – weswegen	GER, ENG
(iii)	Formation of an extended catego- ry-specific complex	trotz – trotzdem – trotzdem dass	GER, FR, POL
(iv)	Adverb-preposition vs. subjunctor	après – après que	FR
(v)	Adverb vs. preposition-subjunctor	bisher – bis	GER
(vi)	Adverb-subjunctor vs. preposition	trotzdem – trotz	GER
(vii)	Adverb-preposition-subjunctor	after	ENG

Tab. 1: language-specific distribution of the patterns

As can be seen in Table 1, the seven patterns appear in various languages. Their distribution is not systematic, however, neither within an individual language nor between languages, yet there are still language-specific tendencies, albeit to varying degrees. English tends to follow pattern (vii), i.e. general polycategoriality between adverb, preposition and

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subjunctor (as with *after*) while French tends to follow pattern (iv), i.e. elements of an adverb-preposition category vs. subjunctor (as with *après* vs. *après que*). Pattern (ii) is particularly characteristic of German, namely category-specific complex formation (as with *deswegen* vs. *wegen* vs. *weswegen*), in which postponers are created to introduce a subordinate clause. Alongside the common feature of deriving morphologically complex structures from prepositions, these findings also allow language-specific properties to be identified. German, for example, proves to have a stronger "aversion" to polycategoriality – in marked contrast to English in particular – as well as to constructing subjunctors from preposition + complementizer – in contrast to French and Polish alike.

**In conclusion**, the analysis at hand shows that a fine-grained analysis of phenomena relating to an individual language, in this case the inventory of connectors in German, can be one of the methodological starting points for a fine-grained contrastive analysis – if and when the structural specifics of the languages being compared are included as additional methodological principles and inadmissible transfers of structures are avoided.

#### References

- HDK-1 = Pasch, Renate et al. (2003): Handbuch der deutschen Konnektoren. Linguistische Grundlagen der Beschreibung und syntaktische Merkmale der deutschen Satzverknüpfer (Konjunktionen, Satzadverbien und Partikeln). Berlin/New York: De Gruyter. (= Schriften des Instituts für Deutsche Sprache 9).
- HDK-2 = Breindl, Eva/Volodina, Anna/Waßner, Ulrich Hermann (2014): Handbuch der deutschen Konnektoren. Bd. 2: Semantik der deutschen Satzverknüpfer. Berlin/Boston: De Gruyter. (= Schriften des Instituts für Deutsche Sprache 13).
- Hetterle, Katja (2015): Adverbial clauses in cross-linguistic perspective. Berlin/Boston: De Gruyter Mouton. (= Trends in Linguistics. Studies and Monographs 289).
- Huddleston, Rodney/Pullum, Geoffrey K. (2002): The Cambridge Grammar of the English Language. Cambridge: Cambridge University Press.