

# 20 Adverbial Subordination

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### 1 Introduction

This chapter is concerned with a particular type of subordinate clause, the adverbial clause, that occurs in complex sentences expressing a temporal or logical relationship between two events. For instance, the sentence *The party started when Jack arrived* denotes a temporal relationship between two states of affairs, that is, the beginning of the party and Jack's arrival, that are expressed in two clauses combined by the conjunction *when*.

In the syntactic literature, adverbial clauses are commonly seen as embedded clauses functioning as constituents of a superordinate clause. In this view adverbial clauses are considered adjuncts (or adverbials) of the main clause (or main clause predicate) serving the same syntactic function as adverbial prepositional phrases. One piece of evidence supporting this analysis comes from the fact that adverbial clauses can often be replaced by non-clausal adverbial constituents. For instance, in the sentence *The party started when Jack arrived* the *when*-clause can be replaced by the prepositional phrase *upon Jack's arrival* without any significant changes in meaning.

However, a number of studies have argued that the traditional analysis of adverbial clauses as adjuncts (or adverbials) is inadequate to characterize their

syntactic function (cf. Matthiessen and Thompson 1988; Givón 2001b: chapter 19, and Halliday 1994: 242–8). According to Matthiessen and Thompson (1988: 280–1), adverbial clauses are dependent but non-embedded structures, which, in contrast to other types of subordinate clauses, do not serve as syntactic constituents of a superordinate clause. Since (sentential) adjuncts do not fill an obligatory slot in the semantically associated clause, there is no cogent evidence that adverbial clauses are syntactically embedded. What is more, although the notion of adverbial subordination is commonly used for a particular clause type, it must be emphasized that adverbial clauses subsume a wide range of constructions with varying syntactic, semantic, and pragmatic properties that often overlap with the corresponding properties of coordinate sentences and other types of subordinate constructions (cf. Haiman and Thompson 1984; Lehmann 1988; see also the paper by Mauri in this volume).

This chapter considers the structural variation of adverbial clauses in the light of their semantic and pragmatic features. It shows that the morphosyntactic features of adverbial clauses vary with their position and function, and that different semantic types of adverbial clauses can have radically different structural properties. In accordance with much previous work, the chapter argues that adverbial clauses constitute a very heterogeneous class of subordinate clauses with fuzzy boundaries to coordinate sentences and other types of clause-linkage constructions.

## 2 Linear Order and Pragmatic Function

One feature that distinguishes adverbial clauses from non-subordinate clauses is their linear arrangement (cf. Haspelmath 1995). While coordinate clauses and paratactic sentences are generally linked to the previous sentence, adverbial clauses can occur both before and after the associated (main) clause, as illustrated by the following examples from Persian.

(1) Persian (Mahootian 1997: 40)

(a) *Cun/cunke dir bud mund-im xune.*  
since late was stayed-1PL home  
“Since it was late we stayed home.”

(b) *Ba otobus ræft-im cunke mašin næ-dar-im.*  
with bus went-1PL because car NEG-have-1PL  
“We went by bus because we don’t have a car.”

If we look at the cross-linguistic distribution of adverbial clauses more systematically, we find two dominant patterns (cf. Diessel 2001). In the majority of

the world's languages, adverbial clauses are common in both positions, that is, before and after the (main) clause; but in some (rigid) OV-languages adverbial clauses are generally placed at the beginning of the sentence. In Japanese, for instance, adverbial clauses consistently precede the main clause (or main clause predicate) unless they are extraposed, which is a relatively rare phenomenon restricted to certain types of adverbial clauses in conversational discourse (cf. Ford and Mori 1994).

The linear arrangement of main and adverbial clauses is closely related to their pragmatic function. It is well-known that preposed adverbial clauses serve particular organizing functions in discourse (cf. Chafe 1984, Thompson 1985, Ford 1993). In their basic use initial adverbial clauses function to present information that is pragmatically presupposed providing a thematic ground for new information asserted in subsequent clauses (cf. Lambrecht 1994). Consider for instance the following example from *Time Magazine*.

- (2) *About 45 minutes later, Teresa Lewis called the police to report that her husband and stepson had been killed. But when the police arrived, Julian Lewis was still alive. Among his last words was an ominous accusation: "My wife knows who done this to me." She did.* [*Time Magazine*, Friday, Sept 10, 2010]

When the reader of a journalistic article is told that somebody called the police, as in the first sentence of this example, he or she has good reasons to assume that the article will continue with information about what happened "when the police arrived." The *when*-clause, thus, connects the complex sentence to the previous discourse; it creates a thematic ground for the ensuing (main) clause(s) based on information from the preceding sentence.

The same discourse-organizing function of initial adverbial clauses has been observed in other languages (cf. Marchese 1987; Givón 2001b: chapter 4; Thompson et al. 2007). Consider for instance the following example from Supyire (Gur, Africa), in which two preposed adverbial clauses of time are thematically related to the previous discourse providing a temporal setting for new information in the sections that follow the adverbial clauses (see Carlson 1994: 588–90 for discussion).

- (3) Supyire (Carlson 1994: 589–90)

<i>Mu</i>	<i>màha</i>	...	<i>cyinnikíí</i>	<i>taanna</i>	<i>a</i>	<i>tòrò</i>	
you	HAB	...	sticks.DEF	line.up	sc	pass	
<i>yire</i>	<i>fááyí</i>	®	<i>ùṅì</i>	<i>ì</i> ,	<i>maá</i>	<i>ḡ-kw'</i> ,	
these	rocks.DEF	head	at	and.SEQ	IP-finish		
<i>maá</i>	<i>cìì</i>	<i>taanna</i>	<i>fááyí</i>	<i>nin-kwuuyí</i>	®	<i>ùṅì</i>	<i>ì</i>
and.SEQ	INDF	line.up	rocks.DEF	ADJ-surround.DEF	head	at	

*na ma na n-tare niŋké wògé ʔùŋì ì.*  
 PROG COME.IMPV PROG IP-set.DOWN.IMPV middle.DEF POSS.DEF head at  
*Mu ahá círé yála à taanna,*  
 you COND them do.well SC line.up  
*mu arì ɲ`kw`*  
 you HAB.SEQ IP-finish  
*maá cí márà,*  
 and.SEQ them cover.with.layer.of.adobe  
*maá lí yáha lá à waha.*  
 and.SEQ it let it PERF dry  
*La há wáha,*  
 it COND dry  
*mu arì pwooré tà cwø`nhø`*  
 you HAB.SEQ adobe.DEF IND mix  
*ná fiinzígíré e,*  
 you fonio.stem.DEF with  
*maríi kùŋikíi ʔinì na n-tare.*  
 and.SEQ.PROG balls.DEF roll PROG IP-set.DOWN.IMPV

“You . . . line up the sticks along on top of these rocks, and finish and then line up some of them on top of the circle of rocks setting (the other end of each stick) on the one in the middle. When you have lined them up well, you stop doing that (lit. you finish) and cover them with a layer of adobe, and let it dry. When it has dried, you mix some adobe with the fonio stems and then roll balls (of adobe) and set them down (i.e. to make a wall).”

Note that the adverbial clauses in (2) and (3) exceed the confines of an individual sentence. They are used to “bridge” the boundaries between two paragraphs, that is, two thematic sections, enhancing discourse coherence (cf. Givón 2001b: chapter 19). However, at the level of the individual sentence, an initial adverbial clause can be seen as a “scene setting topic” (Lambrecht 1994: 125), which in some languages is explicitly indicated by the occurrence of a topic marker. For instance, the adverbial clause in (4a) from Isthumus Zapotec (Tehuantepec, Mexico) occurs with the same morphological marker for topichood, that is, *la*, as the topicalized noun phrase at the beginning of the sentence in (4b).

- (4) Isthumus Zapotec (Thompson et al. 2007: 294)
- (a) *Kumu wara be la, naa nyuaa´.*  
 since sick he TOP went I  
 “Since he was sick, I went.”

- (b) Ngiiu-ke la, bigapa ba'du-ke.  
 man-that TOP hit child-that  
 "That man, he hit the child."

In addition to their function as scene-setting topics, preposed adverbial clauses can serve a particular speech-act function expressing politeness or coordinating the interaction between the speech participants. Consider for instance the adverbial clauses in (5) and (6).

- (5) *Uhm well before we get into the detailed discussion of all of this, have you got something else Mary?* [International Corpus of English]  
 (6) *And if I may say so Mr Speaker . . . they possibly derived some benefit from the presence of the Chancellor . . .* [International Corpus of English]

In both examples the adverbial clause concerns a different level of information than the associated (main) clause. The *before*-clause in (5) functions to inform the hearer about the order of topics in the following discourse, and the *if*-clause in (6) is used to indicate that the speaker is not really in the position to state the subsequent assertion. Rather than indicating a semantic link between two events, the adverbial clauses serve a pragmatic function at the interactive level of the conversation (cf. Sweetser 1990: 76–112).

In contrast to initial adverbial clauses, final adverbial clauses have a local semantic scope elaborating the content of the preceding (main) clause (cf. Thompson 1985; Thompson et al. 2007; Verstraete 2007). However, final adverbial clauses can convey very different types of information.

First, final adverbial clauses are often used as minor additions (or afterthoughts) to the preceding main clause, as in (7), in which the *when*-clause spells out information that is pragmatically presupposed by the prior prepositional phrase *on Friday*.

- (7) *I forgot to mention it to you on Friday, when I saw you.* [International Corpus of English]

Second, final adverbial clauses can present focal information following a thematic main clause that serves a similar grounding function as an adverbial clause at the beginning of a complex sentence (cf. Lambrecht 1994). For instance, the *if*-clause in (8) is grounded by the previous main clause, which includes two anaphoric elements, the demonstrative *that* and the verb *happen*, providing a thematic foundation for the information in the conditional clause.

- (8) *That will happen only if the Government manages to replace the poll tax with a more acceptable alternative.* [International Corpus of English]

Third, adverbial clauses can function as independent sentences (or independent speech acts) resembling coordinate sentences that are syntactically and pragmatically separate from the preceding clause (cf. Green 1976; Lakoff 1984). For instance, the *because*-clause in (9) is intonationally unbound and includes a tag-question indicating that the adverbial clause has its own illocutionary force (see Section 4).

- (9) *And that's a picture frame . . . because that's got glass in it, hasn't it?*  
[International Corpus of English]

Finally, like initial adverbial clauses, final adverbial clauses can be used at the level of the communicative interaction between speaker and addressee. The *if*-clause in (10), for instance, does not express a condition for the content of the preceding (main) clause but functions instead as a pragmatic marker of politeness (cf. Sweetser 1990: 76–112).

- (10) *I will take the big one, . . . if you don't mind.* [International Corpus of English]

To sum up the discussion in this section, we have seen that adverbial clauses can serve a wide range of pragmatic functions that vary with their position relative to the associated (main) clause. In the following section we will see that initial and final adverbial clauses do not only differ with regard to their pragmatic functions but also as to their syntactic properties.

### 3 Syntactic Structure

Complex sentences are commonly analyzed as syntactic units consisting of multiple clauses. However, in language use the individual clauses of a complex sentence are often planned and processed as separate entities. The processing properties of complex sentences are crucially determined by the position of the subordinate clause (cf. Diessel 2005). An adverbial clause that precedes the main clause can be seen as a syntactic projector creating an anticipatory link to upcoming clauses that are immediately integrated in the unfolding sentence. However, if the adverbial clause follows the main clause it may only be added to the previous structure after the main clause has been completed; in contrast to complex sentences with initial adverbial clauses, complex sentences with final adverbial clauses can be planned and processed successively, that is, one clause at a time, suggesting that final adverbial clauses are potentially more independent of the (main) clause than adverbial clauses that precede it (cf. *ibid.*).

In accordance with this analysis, initial adverbial clauses are generally bound to the subsequent main clause by intonation whereas final adverbial clauses are often intonationally separated from the preceding (main) clause (cf. Chafe 1984; Ford 1993). Examining pre- and postposed adverbial clauses in conversational English, Ford (1993) found that about 40 percent of all final adverbial clauses are added to a structure that is intonationally marked as a complete sentence, whereas initial adverbial clauses are generally linked to the subsequent clause. Together with the processing analysis of complex sentences, the different intonational properties of pre- and postposed adverbial clauses seem to suggest that initial adverbial clauses are more tightly integrated in a complex sentence than final adverbial clauses (cf. Diessel 2004: chapter 3). However, as we have seen in Section 2, initial adverbial clauses are commonly used at a global discourse level, whereas final adverbial clauses are semantically linked to the preceding clause, suggesting that complex sentences are semantically more tightly organized if the adverbial clauses follow the associated clause.

Commensurate with this hypothesis Verstraete (2007) argued that final adverbial clauses are commonly interpreted in the light of certain epistemic and speech act features of the preceding (main) clause, whereas initial adverbial clauses are usually not affected by these features (see also Verstraete 2004). Compare for instance the two *while*-clauses in (11) and (12) (adopted from Verstrate 2007: 248).

- (11) *Then you turn and run into the main lounge. He's there, still curled up and still secured by the tape, but he must have wriggled his way through to here while you were down in the cellar.* [British National Corpus]
- (12) *While you were down in the cellar, he must have wriggled his way through to here.*

According to Verstraete, the final *while*-clause in (11) can be interpreted as the focus of the modal verb *must* in the main clause, whereas the initial *while*-clause in (12) is not amenable to such an interpretation. In other words, while the sentence in (11) can mean “that must have been the time when he wriggled his way through to here,” the sentence in (12) restricts the semantic scope of *must* to the main clause excluding an interpretation in which the *while*-clause is in the focus of the modal verb.

Similarly, while a final adverbial clause can be interpreted as being part of a question, an initial adverbial clause is usually not included in the scope of an interrogative (main) clause. For instance, while the adverbial clause in (13) can be analyzed as the focus of an interrogative speech act meaning “Was that the time when you talked to her?” the adverbial clause in (14) is pragmatically presupposed and hence outside of the scope of the following question; that is, in contrast to the sentence in (13), sentence (14) cannot mean “Was that the

time when you talked to her?" (but see Verstraete 2007: 249–50 for some rare exceptions).

- (13) *Did you talk to her while she was still in her office?*
- (14) *While she was still in her office, did you talk to her?*

Thus, while initial adverbial clauses are structurally and intonationally incomplete without the following (main) clause, they tend to be semantically more independent of the associated clause than adverbial clauses at the end of a complex sentence, where the subordinate clause often functions as an integral semantic component of the preceding (main) clause.

However, final adverbial clauses are not generally included in the scope of semantic operators in the prior (main) clause. If the adverbial clause is added to an intonationally complete sentence it often behaves like an independent assertion exhibiting a range of "main clause phenomena" (Green 1976), which are usually banned from a subordinate clause. In English, these main clause phenomena include, among others, negative inversion, locative inversion, and tag questions (cf. Green 1976; Lakoff 1984). Although all of these phenomena are supposed to be restricted to main clauses, it is well known that they also occur in certain types of subordinate clauses, including certain types of adverbial clauses, but only if the adverbial clause follows the semantically associated clause (cf. (15a–c)). Since preposed adverbial clauses are pragmatically presupposed, they are incompatible with syntactic phenomena of independent main clauses (cf. (16a–c)):

- (15)
  - (a) *They were stunned, because never before had there been anything quite like it.*
  - (b) *I will stay, because here comes my friend John.*
  - (c) *I think we should not go, because it's raining, isn't it?*
- (16)
  - (a) *?Because never before had there been anything quite like it, they were stunned.*
  - (b) *?Because here comes my friend John, I will stay.*
  - (c) *\*I think because it's raining, isn't it, we should not go.*

That the occurrence of main clause phenomena is restricted to final adverbial clauses has also been observed in other languages (cf. Günthner 1996; Haan 2001). In colloquial German, for instance, adverbial clauses are often used with main clause word order, but only if the adverbial clause follows the semantically associated clause. As can be seen in (17a–b), if a causal (or concessive)



Conditional clauses tend to precede the main clause, temporal clauses exhibit a mixed pattern of pre- and postposing, and causal and purposive clauses are usually placed at the end of a complex sentence. Assuming that the positional tendencies of adverbial clauses correlate with their pragmatic functions, we may hypothesize that the meaning of adverbial clauses is an important determinant of their position and pragmatic use. This hypothesis is supported by several recent studies.

To begin with, the cross-linguistic tendency for conditional clauses to precede the main clause is eventually motivated by their meaning. A conditional clause describes a fictive situation providing a conceptual framework for the interpretation of subsequent clauses. Consider for instance the *if*-clause in (19), in which four successive clauses are semantically contiguous on the hypothetical scenario encoded in the conditional clause.

- (19) *If all goes well, it gets very hot (up to 70 degrees) and the mixture begins to rot very quickly, and in the process weed seeds, pathogens and even perennial weed roots are killed.* [International Corpus of English]

Since conditional clauses are commonly used to establish a conceptual frame or “mental model” (cf. Johnson-Laird and Byran 2002) for the interpretation of related clauses, they tend to occur at the beginning of a complex sentence (functioning as a particular type of topic; cf. Haiman 1978).

Apart from conditional clauses, temporal clauses are commonly used for discourse-organizing functions at the beginning of a complex sentence. However, unlike conditional clauses, temporal clauses do not immediately affect the semantic interpretation of the associated clause; rather, temporal clauses are typical background clauses that speakers use to process the transition between episodes in narrative discourse and related genres. As pointed out above (cf. (4) & (5)), preposed temporal clauses create a temporal setting for foreground information in subsequent clauses based on information from the preceding discourse, whereas final adverbial clauses complete or narrow the meaning of the preceding (main) clause (see Hopper 1979 and Ford 1993: 68–73 for some discourse). A second factor that influences the positioning of temporal adverbial clauses is iconicity of sequence. There is evidence that temporal clauses of posteriority usually follow the main clause whereas temporal clauses of anteriority typically precede it (cf. Diessel 2008).

In contrast to conditional and temporal clauses, causal and purposive clauses are only rarely used for discourse-organizing functions, serving instead a more local function in the context of the preceding (main) clause. However, although both causal and purposive clauses typically occur at the end of a complex sentence they tend to serve very different pragmatic functions.

Final purposive clauses denote the goal or motivation of the activity described in the associated (main) clause, which is often at the heart of the information jointly conveyed by main and subordinate clauses (cf. Thompson 1985). Consider for instance the complex sentence in (20), in which the main clause takes up a theme from the previous discourse (i.e. the importance of concentration for playing baseball) that is elaborated by the purposive clause. Note that the main clause is semantically incomplete without the purposive clause: a sentence that begins with *He must concentrate* calls for an explanation that is provided by the goal or motivation expressed in the adverbial clause.

- (20) *It helps players to develop their concentration. It is not enough for a player to know what he should be doing. He must concentrate in order to do it effectively and to do it whenever it is required.* [International Corpus of English]

The close semantic bond between main and purposive clauses is reflected in their morpho-syntactic structure. There are two conspicuous structural properties of purposive clauses that distinguish them from other semantic types of adverbial clauses. First, purposive clauses are morphologically more reduced than temporal, conditional, and causal clauses. As demonstrated in a recent study by Schmidtke-Bode (2009: 151–7), across languages purposive events are commonly expressed by morphologically deprived clauses that contain an uninflected verb form and often lack an overt subject. English provides a case in point. While conditional, temporal, and causal clauses are commonly realized by fully developed clauses, purposive clauses are primarily expressed by infinitives that lack the inflectional properties of other verb forms and are usually controlled by the main clause subject (see also Cristofaro 2003: 155–94).

Second, purposive clauses tend to be syntactically more closely integrated in a complex sentence than other types of adverbial clauses. Although purposive clauses are commonly analyzed as adjuncts, they often resemble complement clauses (cf. Parodi and Quicoli in this volume). Of the 80 languages in Schmidtke-Bode's sample, 62 languages had at least one purposive clause that shared important properties with complement clauses (cf. Schmidtke-Bode 2009: 158). Consider, for instance, the purposive clause in (21a) from Imonda (Papuan, New Guinea), in which the dominant type of purposive clauses consists of a nominalized verb form that is marked by the same case suffix as the complement clause in (21b), whereas conditional, temporal, and causal relationships are expressed by fully developed clauses that do not take a case suffix but often include a topic marker, which is not permissible in purposive clauses (cf. Seiler 1985: 203).

(21) Imonda (Seiler 1985: 84, 190)

(a) *Pōl nēhe-l-m uagl-f.*  
 fence construct-NMLZ-GOAL go-PRS  
 “I am going to build a fence.”

(b) *Iēf sabla nibia-ual-l-m ō-f.*  
 house two build-DU-NMLZ-GOAL say-PRS  
 “I want to build two houses.”

Like purposive clauses, causal clauses tend to provide new and focal information; but in contrast to purposive clauses, causal clauses are often only loosely integrated in a complex sentence. In Ford’s study of adverbial clauses in conversational English, 53 percent of all causal *because*-clauses are added to a (main) clause with closing intonation suggesting that causal clauses are commonly used as independent assertions (cf. Ford 1993: 102–30). This hypothesis is supported by the fact that the above-mentioned main clause phenomena in adverbial clauses are largely restricted to causal (and concessive) clauses and that causal relationships are commonly expressed by constructions that resemble independent sentences. For instance, in languages in which adverbial clauses generally precede the main clause (see above) causal relationships are often expressed by coordinate sentences that follow the semantically associated main clause (cf. Diessel and Hetterle 2011).

The particular properties of causal clauses are motivated by their pragmatic function. Especially in spoken discourse, causal clauses are commonly used as independent speech acts functioning to back up a previous statement that the hearer is unlikely to accept without additional information. Consider for instance the following example.

(22) A: *We could spend a lot of our life trying to contradict that.*

B: *Why?*

A: *Well, because . . . it may be a very bad chemical bath.* [International Corpus of English]

Although causal clauses are semantically dependent on the associated (main) clause, in conversational discourse they are often prompted by a hearer signal, as in (22), in which the *because*-clause is produced in response to a causal *why*-question. As Diessel and Hetterle (2011) have pointed out, across languages causal (adverbial) clauses are associated with a particular discourse pattern consisting of (i) an assertion that the hearer does not accept or understand, (ii) the hearer’s reaction (optional), and (iii) the speaker’s justification or explanation of the controversial statement. Interestingly, in some languages causal clauses are marked by frozen questions indicating that causal clauses are commonly used

in a particular discourse pattern that involves a causal question (e.g. English *that's why*, Italian *perché*, Supyire *ṇàhá ná ye* "through what"; see Diessel and Hetterle 2011).

## **5 Conclusion**

In conclusion, this chapter has shown that adverbial clause can serve various pragmatic functions that are crucially determined by their position relative to the associated (main) clause. The particular pragmatic functions of pre- and postposed adverbial clauses are reflected in their morphosyntactic properties and are related to aspects of their meaning and communicative use. Although adverbial clauses are commonly defined as a consistent grammatical category, it must be emphasized that the notion of adverbial subordination refers to a very diverse set of constructions that exhibit an enormous amount of variation within and across languages.