

## Adverbial clauses and adverbial concord

This paper speculates on the relation between the external syntax and the internal syntax of adverbial clauses, and postulates that the nature of the merge site of an adverbial clause is determined by the internal syntax. As illustrated by English (1), the conjunction *while* may contribute two different readings to the clause it introduces. In (1a), *while*<sub>1</sub> means roughly ‘during the time that’; in (1b), *while*<sub>2</sub> is near-equivalent to *whereas*. In other words: in (1a) the *while* clause structures the event, that in (1b) structures the discourse highlighting the processing context of the associated proposition. Following Haegeman (2012a etc) we call *while*<sub>1</sub> clauses ‘central’ adverbial clauses and *while*<sub>2</sub> clauses ‘peripheral’ adverbial clause, reflecting the degree of syntactic integration of the clause types. Other adverbial clauses too (*since*, *if*, *when*) display this type of ambivalence between a ‘central’ event reading and a ‘peripheral’ discourse reading.

(1) a. My father worked at the department while<sub>1</sub> Clinton was governor of Arkansas.

b. While<sub>2</sub> Bill Clinton was governor of Arkansas, his wife was senator of New York.

**1 External syntax** Central adverbial clauses only coordinate with central adverbial clauses and peripheral adverbial clauses only coordinate with peripheral adverbial clauses (Haegeman 2012a: 164-165). If coordination is subject to Williams’ (1978) ‘Law of Coordination of Likes’ (van Koppen and Rooryck (2008) for a feature-based reinterpretation), the restriction may mean that constituents merged in distinct positions in the tree cannot coordinate (cf. Huddleston and Pullum 2006). The restriction on coordination of the adverbial clause types follows if peripheral adverbial clauses and central adverbial clauses differ in their external syntax, i.e. they are merged at different points in the tree. As a first approximation, being modifiers of TP or a TP contained domain, central adverbial clauses are merged in the IP area, while peripheral adverbial clauses, modifying a higher domain, are merged in the CP area or above. The paper presents some support for this hypothesis drawn from, among other things, scope effects, VP anaphora, VP ellipsis, parasitic gap licensing and temporal interpretation (cf. Hornstein 1993).

**2 Internal Syntax** Central adverbial clauses and peripheral adverbial clauses also differ in terms of their internal syntax, with peripheral adverbial clauses sharing some semantic/syntactic properties with main clauses. One piece of empirical support for this claim is the fact that in English argument-fronting is banned from central adverbial clauses, but remains possible in peripheral adverbial clauses, as shown in (2). Since Hooper and Thompson (1973), the availability of argument fronting in English has been related with assertion, itself a main clause property (but see Haegeman (2012a, 2012b) for evaluation and for references).

(2) a. \*We discovered something else while this paper we were writing

b. His face not many admired, while his character still fewer felt they could praise.

(Quirk et al 1985: 1378)

Central adverbial clauses are not asserted but presupposed, they lack independent illocutionary force, and are an integral part of the speech act expressed in the superordinate clause; peripheral clauses have their own illocutionary potential (cf. Declerck and Reed 2001: 131). That peripheral adverbial clauses encode illocutionary force is illustrated by attested examples such as (3): a peripheral *while* clause contains a hanging topic (*gold*) and a (albeit rhetorical) *wh*-question and in (3b) a peripheral *since* clause contains a (rhetorical) *wh*-question:

(3)a. Oil and electricity are useful, while gold – what’s the point of that? (*Independent on Sunday* 30.04.2006, page 4, col. 2)

b. These assumptions can be irritating, since who is this naive, unquestioning, plural intelligence identified as ‘we’? (*Observer Review* 23.11.2008, page 12, col. 4)

It has also often been pointed out that adverbial clauses, and in particular conditional clauses, resist speaker-oriented modal expression (Stowell (2004), Nilsen (2004), Zagana (2007) and Ernst (2007, 2009). In terms Cinque’s functional sequence of modal markers (1999, 2004: 133), the topmost four expressions of modality are not easily compatible with central adverbial clauses, but are compatible with peripheral adverbial clauses, as shown in (4) for English. (4a) contains

an illicit speech act modal, (4b) illustrates conditional assertion with an epistemic modal. See Haegeman (2010) and the references cited for discussion and crosslinguistic support.

(4)a. \* If they luckily arrived on time, we will be saved (Ernst 2007: 1027, Nilsen 2004).

b. If Le Pen will probably win, Jospin must be disappointed. (Nilsen 2004: 811: note 5)

**3 Relating external and external syntax** Informally speaking, a correlation emerges between the internal syntax of adverbial clauses and their external syntax : the “more structure is manifested in the adverbial clause, the higher it is merged”. This paper develops a derivational account for this correlation. The proposal adopts the movement derivation of adverbial clauses according to which adverbial clauses are derived like relative clauses by movement of a specific IP-related operator to the left periphery. This derivation goes back to work by Geis (1970, cited in Ross 1967: 211), Reuland (1979), Larson (1985, 1987, 1990), Johnson (1988), Declerck (1997), Lycan (2001), and has recently been explored by, a.o. Demirdache and Uribe-Etxebarria (2004, 2012), Bhatt and Pancheva (2006), Zentz (2011) and Haegeman (2012a,b). Assuming that specialised operators are involved in the derivation of the adverbial clauses and that the relevant operators have a different launch site (aspectual, temporal, modal etc), the nature and the label of the adverbial clause can be determined by the nature of the moved operator.

**4 Adverbial concord** Once formed, the adverbial clause is merged with the clause it modifies and we have identified a correlation between “size” of the clause and “level” of integration. In our attempt to clarify this correlation, we will explore observations drawn from the traditional literature on Japanese grammar (Minami 1974, Noda 1989, 2002) to the effect that the amount of functional structure in an adverbial clause is reflected in the presence of specialized functional particles in the matrix clause with which the clause merges. It is proposed that the merger of an adverbial clause with the associated main clause is determined by the label of the adverbial clause, itself the result of the movement derivation. Specifically, we explore data from Japanese discussed in Endo (2011, 2012). His two key findings are:

- (i) An inventory of the functional heads available in Japanese adverbial clauses reveals a “gradience” in their functional sequence correlating with the availability of main clause phenomena which corresponds with the availability of sentential particles. Put informally, the generalisation is that the more functional elements a given adverbial clause contains, the more it allows main clause phenomena.
- (ii) There is a “concord” relation between the adverbial clause and the clause it modifies: the integration of a specific type of adverbial clause to a main clause has a reflex in the functional particles in the main clause.

The hypothesis is that merger of clauses requires matching labels. For a similar idea of merging ‘parallel’ clause types see also the Level Embedding Regime of Williams (2003, 2009), according to whom ‘the point at which embedding is done is determined by the “size” of the clause being embedded’ (Williams 2009: 6). According to Williams: ‘... the matrix and the to-be-embedded clause are built up simultaneously in the workspace, and when the to-be-embedded clause is the appropriate size (or, equivalently, at the appropriate time), the embedding is done (Williams 2009: 7)’.

Support from the proposal comes from the different concord relations of the Japanese particles *nagara* (*while*) and *nagara-wa* (*if*), which contains the topic particle *wa*. An adverbial clause headed by *nagara* ‘during’ has a concord relation with a low aspectual particle of the matrix, a clause introduced by *nagara-wa* ‘if’ has a concord relation with a higher tense marker of the matrix, the concord relation seen in conditional clauses headed by *ba* ‘if’, which diachronically originates from the topic particle *wa* after the 7<sup>th</sup> century.

As it stands our proposal is admittedly programmatic and time permitting we will discuss a number of empirical and theoretical issues that emerge.