Rethinking the distribution of finite complement clauses: evidence from complementiser-how clauses

- (A) Challenging the role of clause-type in the distribution of finite complement clauses: Since Grimshaw (1979), the orthodox view has been that finite clausal complement clauses (FCCs) in English are selected by matrix predicates on the basis of their clause-type (see e.g. Rizzi (1997) and Ginzburg & Sag (2000) for alternative implementations of the same idea). This claim is made on the basis of a consideration of a limited range of commonly-discussed finite complement clause-types: declarative (cf.1), interrogative (cf.2) and exclamative (cf.3):
- (1) Alex had forgotten/claimed/*wondered [that Sam lived in Spain]. [declarative]
- (2) Alex had forgotten/*claimed/wondered [where Sam lived]. [interrogative]
- (3) Alex had forgotten/*claimed/*wondered [what a lot of time Sam spent in Spain]. [exclamative] As (1)-(3) show, while matrix predicates like *forget* are compatible with complements belonging to any of these three clause-types, certain matrix predicates, such as *claim*, can be combined only with FCCs of type 'declarative'; others, such as *wonder*, only with FCCs of type 'interrogative'. I argue that a more fine-grained approach, which takes into account the distribution of an additional, common, yet understudied type of FCC, the complementiser-*how* clause (CHC) (cf. (4), (5)), leads to the conclusion that FCCs are not in fact selected on the basis of clause-type, but on the basis of what I term distributional type, composed of a +/- value for two properties, *wh* and factivity.
- (B) The distribution of CHCs in English: CHCs are declarative complement clauses introduced by *how* (cf. Legate (2010)), which show a formal resemblance to interrogative and exclamative FCCs, and an interpretational similarity to (factive) *that*-clauses: in (4) and (5), *never* in the subordinate clause rules out a manner reading for *how*, and the presupposition of the CHC holds under matrix negation, establishing the factivity of such clauses (cf. Kiparsky & Kiparsky (1971)). (4) Alex had forgotten [that/how Sam was never late]. ⇒ Sam was never late
- (5) Alex hadn't forgotten [that/how Sam was never late]. \Rightarrow Sam was never late It has been claimed that in such cases *how* 'is now being used as a complementiser head and no longer as a *wh*-element in a specifier position' (van Gelderen 2009: 144). Yet the striking distributional parallel CHCs show to embedded exclamatives indicates that they are *wh*-clauses in a syntactically relevant sense. CHCs occur under a much broader range of predicates than the 'verbs of saying and knowing' alluded to by Willis (2007), also occurring under many factives (*be amazing, learn, see, regret, like...*). Crucially, however, they are excluded from occurring as complement to those factives which accept only *that*-clause complements (cf. 6), just as other *wh*-clauses are (cf. 7), whilst occurring under those (factive) predicates which reject *that*-clause complements (cf. 8) but permit *wh*-clauses (cf. 9). In fact, strikingly, CHCs always show precisely the same distribution as embedded exclamatives, despite their interpretive similarity to factive *that*-clauses. This divergent distribution of declarative FCCs, and common distribution of CHCs and exclamatives, is unexpected, if selection is on the basis of clause-type.
- (6) <u>I'm glad/sorry</u> [that/*how they weren't given the opportunity to return]. [that-clause/*CHC]
- (7) * <u>I'm glad/sorry</u> [**what a** dreadful experience it was].

[*exclamative]

- (8) Sandra also <u>described/detailed</u> [*that/how they weren't given any help]. [*that-clause/CHC]
- (9) Sandra also <u>described/detailed</u> [**what a** dreadful experience it was]. [exclamative]
- (C) Selection for distributive type: The patterns in (6)-(9) support an analysis of both CHCs and exclamative FCCs as wh-clauses (where wh is a formal syntactic feature also shared with interrogatives). The facts in both (1)-(3) and (6)-(9) are captured by characterising CHCs and exclamatives as [+wh, +factive] (see Zanuttini & Portner (2003) on the factivity of exclamatives),

in contrast to [-wh, +factive] factive that-clauses and [+wh, -factive] interrogative clauses (given McCloskey (2006), a further distinction may be needed between the [+wh, -factive] 'true interrogative' complements to wonder, and the [+wh, +factive] 'resolutive' complements to forget, which, as predicted, distribute alike with CHCs and exclamatives). A single distributional type can be shared by multiple clause-types, thus accounting for the fact that distinct FCCs – exclamatives and CHCs – each with their own interpretation, can nevertheless have a common distribution. The interpretive difference arises from the fact that the former but not the latter involve a wh-operator-variable configuration. For the purposes of selection it is merely the presence of an (accessible) [+wh] specification in the FCC which is relevant, not the configuration in which this occurs.

(D) The distribution of CHCs beyond English: While CHCs are by no means limited to English, the distribution of the equivalent German *wie*-clauses is considerably more restricted than that of English CHCs: Kratschmer (2013: 50) observes that '[w]ie functioning as a pure conjunction...only works in contexts of direct perception', so that when *hören* 'hear' in (10) (Kratschmer's (2013: 36) (9)) is understood to refer to hearsay, rather than direct perception, the complement clause cannot be understood as a CHC in German, unlike in the English translation. (10)*Er hörte, wie die Demonstranten ins Rathaus der Nachbarstadt eindrangen.

he heard how the demonstrators in-the-acc. town hall the-gen. neighbour.city intruded

'He heard how the demonstrators forced their way into the town hall of the neighbouring city.' Note that there is nothing in the data provided by Kratschmer which suggests that German complementiser wie-clauses are able to occur under predicates which select only for [-wh]-clauses. Examples such as (11) illustrate that the ungrammaticality of (10) cannot be attributed to a general restriction on the embedding of [+wh] complements under $h\ddot{o}ren$ 'hear' on a hearsay reading.

(11) Hast du gehört, wo die anderen sind? have-2sg. you-sg. heard where the others are-3pl.

'Have you heard where the others are?'

Rather, German CHCs appear restricted to a specific sub-set of those contexts which allow [+wh]-clause complements. This more restricted distribution in comparison to English CHCs can be attributed to Kratschmer's (2013: 50) observation that German CHCs are restricted to 'actual (= factive) perceptibly dynamic events': the factivity is common to both English and German CHCs, the property of denoting only 'perceptibly dynamic events' exclusive to the latter. The result is that although German CHCs share the [+wh, +factive] specification with their English counterparts, the additional property of denoting perceptibly dynamic events renders them interpretively incompatible with the full range of matrix predicates which embed both English CHCs, and other [+wh, +factive] complement clauses in German. At the other end of the spectrum is Hungarian, where hogy 'how' is the unmarked [-wh] declarative complementiser, with hogy-clauses not limited to occurring under predicates which accept wh-clause complements (cf. (12) vs (13)).

- (12) Meg vagyok győződve (arról) [hogy haza akar menni]
 PV am convinced expl.about [that home want.3SG go.inf]
 'I'm convinced that she wants to go home.'
- * Meg vagyok győződve (arról) [hogy hova akar menni].

 PV am convinced expl.about *[that where want.3SG go.inf]

 *'I'm convinced where she wants to go.'

Following Willis (2007) and van Gelderen (2009), one can posit a grammaticalization pathway in which CHCs develop from [+wh,+factive] FCCs limited to denoting perceptibly dynamic events, via [+wh,+factive] FCCs, and on to [-wh, +/- factive] FCCs, with German, English and Hungarian respectively realising these 3 stages, and the associated distributional differences for CHCs.

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