

Presupposition in the clausal and nominal domains*

Rachel Nye and Liliane Haegeman (GIST, Ghent University)

rachel.nye@ugent.be; liliane.haegeman@ugent.be

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0. Introduction

- Previous discussion of CP/DP parallelism with regard to the presupposed (familiar/specific/definite/referential) nature of the content has focused almost exclusively on the similarities between factive *that*-clauses and definite DPs.
- In this talk, we explore the idea of a CP/DP parallelism for (certain types of) *wh*-clause, focusing in particular upon complementiser-like *how* clauses (CLHCs).

AIMS

- To show that similarities between CLHCs and definite DPs in terms of the presuppositions they generate, and the environments in which these are suspended, should not be accounted for by positing a DP layer in the syntax of CLHCs.
- To provide support from *wh*-clauses for the view that factivity is not a syntactically encoded property but one which arises when a referential complement clause is embedded under a factive predicate (de Cuba & Ürögdi 2009a,b; Haegeman & Ürögdi 2010a,b).

CLAIM

- True parallelism between CP/DP in terms of presupposition (arising due to referentiality), rather than a case of the former being assimilated to the latter in terms of structure.

1. Presupposition (suspension) in complementiser-like *how* clauses and DPs

1.1. Factivity

- A complement clause is said to be factive if its propositional content is presupposed.

'A sentence *S* logically presupposes a sentence *P* just in case *S* logically implies *P*, and the negation of *S* also logically implies *P*' (Shanon 1976).

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1.2. Complementiser-like *how* clauses (CLHCs)

- CLHC: declarative complement clause introduced by *how* (cf. Legate 2010; Nye 2012).
- (4) a. Jurors have heard [**how** the boy had been placed on the child protection register with Haringey social services nine months before his death].¹
- b. An enthusiastic staff member explained [**how** the 1830s redbrick building had been an outmoded remand center].²
- c. As an Irishman, I never grew up with the traditional grandfather-in-the-war stories but this made me realize [**how** a whole generation made the ultimate sacrifice].³

1.3 Presupposition in complementiser-like *how* clauses

- CLHC embedded under factive predicate *forget*: **factive and grammatical**
- (5) a. She forgot [**how** he lived in Spain]. ⇒ he lived in Spain
 b. She didn't forget [**how**he lived in Spain]. ⇒ he lived in Spain
- (6) # Dick Whittington recalled how the streets of London were paved with gold.
- CLHC embedded under non-factive predicate *believe*: **ungrammatical**
- (7) a. * She believed [**how** he lived in Spain].
 b. * She didn't believe [**how**he lived in Spain].
- Other *wh*-clause complements under *believe*: **ungrammatical**
- (8) a. * I believe [**whether** he left]. [* embedded polar interrogative]
 b. * I believe [**why**he left]. [* embedded *wh*-variable interrogative]
 c. * I believe [**what a** well-travelled man he is]. [* embedded *wh*-exclamative]
- Correlation between a *that*-clause complement of a predicate receiving a factive interpretation, and the ability of the same predicate to select for *wh*-clause complements (Kiparsky & Kiparsky 1971; Melvold 1991; Egré 2008) is not absolute.
- *that*-clause embedded under non-factive predicate *tell*: **non-factive and grammatical**
- (9) a. He told me [**that**he lived in Spain]. ⇏ he lived in Spain
 b. He didn't tell me [**that**he lived in Spain]. ⇏ he lived in Spain

¹ From *The Guardian* 31.10.2008, page 8 col. 5.

² From *The Independent* on Sunday, Travel 27.07.2008, page 7 col. 1.

³ From *The Independent, Magazine* 28.07.2002, page 7 col. 3.

(10) Dick Whittington told me that the streets of London were paved with gold.

- CLHC embedded under non-factive predicate *tell*: non-factive and grammatical

(11)a. She told me [**how** he lived in Spain].

b. She didn't tell me [**how**he lived in Spain].

(12) Dick Whittington is always telling me how the streets of London are paved with gold.

CLAIM: CLHCs - like *that*-clauses - are only truly factive when embedded under a factive predicate.

Table 1 - Summary of the behaviour of *that*-clauses and CLHCs under various matrix predicates

	non-factive predicate		factive predicate
	<i>believe</i>	<i>tell</i>	<i>forget</i>
<i>that</i>-clause	non-factive	non-factive	factive
complementiser-like <i>how</i>-clause	*	non-factive	factive

1.4 Presupposition suspension in complementiser-like *how* clauses

(13) The point for your average voter is that if they see the EDL marching through their streets shouting about [**how** the neighbourhood is about to be swamped by Muslims] or [**how** the UK is going to be Islamified by 2040], they are also receiving these cues from other sections of British society.⁴

(14) The schoolboy went on: "Politicians always seem to talk about how much they value education, [**how** it's a priority], [**how** it's safe in their hands]. Well, from where I'm standing it doesn't look very safe at all."⁵

(15) Tony LaRussa is the same turkey that allowed steroids to run rampant in his clubhouse for decades- and stood by as McGwire lied about [**how** he never used].⁶

- This same effect is found in the same contexts with definite DPs⁷.

1.5 Presupposition (suspension) in DPs

- Definite DPs: presupposition of existence and of uniqueness - they have a unique referent (Frege 1892/1977, Strawson 1952).

(16) The man had forgotten/recalled [his recent holiday to Spain]...

#... although in fact it turned out that he hadn't been on holiday at all.

(17) # Dick Whittington recalled [the gold paving on the streets of London].

(18) The point for your average voter is that if they see the EDL marching through their streets **shouting about** [the swamping of the neighbourhood by Muslims or the Islamification of the UK by 2040], they are also receiving these cues from other sections of British society.

⁴ From <http://www.guardian.co.uk/uk/2010/may/28/english-defence-league-protest-bnp>. Last accessed 04.08.2012.

⁵ From <http://www.guardian.co.uk/education/2011/apr/25/15-year-old-speech-ema-cuts>. Last accessed 04.08.2012.

⁶ http://www.huffingtonpost.com/2010/08/27/albert-pujols-tony-la-russa_n_697019.html. Last accessed 03.08.2012.

⁷ Thanks to Caroline Heycock [p.c] for the observation that definite DPs show this behaviour.

(19) The schoolboy went on: "Politicians **always seem to talk about** [the value of education], [the fact that it's a priority and that it's safe in their hands]. Well, from where I'm standing it doesn't look very safe at all."

(20) Tony LaRussa is the same turkey that allowed steroids to run rampant in his clubhouse for decades- and stood by as McGwire **lied about** [his never having used drugs].

SUMMARY

- CLHCs and definite DPs:
 - generally involve a presupposition of existence
 - this presupposition is absent in the same range of contexts

2. Complementiser-like *how* clauses as (definite) DPs?

- CLHCs are DPs i.e. clausal complements topped by a DP layer?
- Legate (2010): CLHCs are DPs. Argument based on: factivity (without mention of presupposition suspension), strong island status, distribution.
- The distribution of CLHCs nevertheless casts doubts on this hypothesis (see Nye 2012).

2.1 Contrast 1: clausal subject vs. extraposed position (with *be funny/interesting/strange...*)

➤ as subject

- (21)a. [His repeated lack of punctuality] is funny/interesting. [DP]
 b. * [How he's never here on time] is funny/interesting. [*CLHC]

➤ extraposed

- (22)a. * It's funny/interesting [his repeated lack of punctuality]. [*DP]
 b. It's funny/interesting [how he's never here on time]. [CLHC]

2.2 Contrast 2: middlefield vs. extraposed position in Dutch

➤ in middlefield position (in Dutch)

- (23)a. Ik zal [het feit dat hij me toen niet geholpen heeft] nooit vergeten. [heavy DP]
 I will the fact that he me then not helped has never forget
 'I will never forget the fact that he didn't help me then.'
 b. *Ik zal [hoe hij me toen niet geholpen heeft] nooit vergeten. [CLHC]
 I will how he me then not helped has never forget
 'I will never forget how he didn't help me then.'

➤ in 'extraposed' position (in Dutch)

- (24)a. *Ik zal nooit vergeten [het feit dat hij me toen niet geholpen heeft]. [heavy DP]
 I will never forget the fact that he me then not helped has
 'I will never forget the fact that he didn't help me then.'
 b. Ik zal nooit vergeten [hoe hij me toen niet geholpen heeft]. [CLHC]
 I will never forget how he me then not helped has
 'I will never forget how he didn't help me then.'

2.3 Embedded exclamatives

- Exclamatives are also factive (Grimshaw 1979; Ono 2006; Ono & Fujii 2006; Zanuttini & Portner 2006):
- wh-exclamative-clause embedded under factive predicate *forget*: **factive and grammatical**
- (25)a. He forgot [**what a** beautiful sunset it was]. ⇒ it was a beautiful sunset
- b. He didn't forget [**what a** beautiful sunset it was]. ⇒ it was a beautiful sunset
- This presupposition is suspended in the same range of contexts as for CLHCs and definite DPs ('many propositional attitude verbs expressing beliefs and verbs that report speech' (Abels 2010: 151)):
- (26)a. Friends often tell me [**what a** wonderful cook I am] - I always tell them it is the ingredients, not my skill as a cook.
- b. When one of my classmates found out which guy I was crushing on, she hooked up with him and then told him all these lies about [**what a** terrible person I was].
- c. People shake their heads and go on about [**what a** great tragedy the whole situation is].
- Despite being factive and strong islands, clausal *wh*-exclamatives are taken to be CPs, not DPs, with factivity attributed to an operator (Ono & Fujii 2006; Zanuttini & Portner 2006).
- CP status is supported by the fact that they show the same non-DP like distribution as CLHCs:
- as subject
- (27)a. [**His repeated lack of punctuality**] is funny/interesting. [DP]
- b. * [**How very often he is late**] is funny/interesting. [*exclamative]
- extraposed with the predicates *be funny/interesting/strange/remarkable...*
- (28)a. * It's funny/interesting [**his repeated lack of punctuality**]. [*DP]
- b. It's funny/interesting [**how very often he is late**]. [exclamative]

SUMMARY:

- Thus exclamatives and CLHCs pattern alike in terms of:
 - (i) generally involving a presupposition.
 - (ii) this presupposition being suspended in the same range of environments.
 - (iii) sharing properties (i) and (ii) - but not their distribution - with definite DPs.

3. Referentiality in *that*-clauses

3.1 Factive *that*-clause complements - from DPs to CPs

- Factive *that*-clauses:
 - originally analysed as DPs (Kiparsky & Kiparsky 1971)
 - argued to be CPs in more recent work (Melvold 1991; Watanabe 1993; de Cuba & Ürögdi 2009a,b; Haegeman & Ürögdi 2010a,b)
- Move from attributing factivity to a null definite nominal (cf. Kiparsky & Kiparsky's (1971) *the fact*), to presence of an operator (Melvold 1991; Watanabe 1993; Haegeman & Ürögdi 2010a,b).

- This converges with both:
 - independent proposals that exclamation marks are CPs with an operator triggering factivity.
 - our view that despite their similarities to definites DPs, CLHCs are nevertheless CPs.

3.2 Factive *that*-clauses as referential CPs

- Factivity itself is not a syntactically encoded property? Relevant property is rather claimed to be:
 - definiteness (Melvold 1991)
 - familiarity (Hegarty 1992)
 - referentiality (de Cuba & Ürögdi 2009a,b; Haegeman & Ürögdi 2010a,b; Hinzen & Sheehan 2011)

3.3 (Non-)referential CPs - de Cuba & Ürögdi (2009a,b) (see also Haegeman & Ürögdi (2010a,b))

- **Two types of matrix (verbal) predicate:**
 - factive verbs: place a requirement on their complement clause that the propositional content is resolved as true
 - non-factive verbs: place no such requirement on their complements.
- **Two types of complement clause:**
 - **referential CP (RCP)**⁸: 'a referential entity that denotes a proposition without illocutionary force...a semantic object encoding a proposition (without a necessary commitment to its truth) about which the complex sentence makes an assertion' (de Cuba & Ürögdi 2009a: 7⁹).
 - **non-referential CP (NCP)**: 'a non-referential semantic object denoting a speech act, which adds a new proposition or an open question to the context...When a verb takes a NCP as its complement, the information focus of the complex sentence is the NCP' (de Cuba & Ürögdi 2009a: 7).
- In principle, both RCPs and NCPs are compatible with both factive and non-factive predicates. However, only 3 of the 4 logical possibilities are actually realised:

Table 2 - *that*-clause realisations of RCP and NCP complements to factive/non-factive predicates

	RCP	NCP
factive predicate (<i>forget</i>)	factive <i>that</i> -clause	*
non-factive predicate (<i>believe, tell</i>)	factive-like <i>that</i> -clause	non-factive <i>that</i> -clause

SUMMARY of de Cuba & Ürögdi (2009a,b):

- no inherently factive complement clauses.
- 'factive' complement-clause involves an RCP under a factive predicate.
- but RCPs can equally occur under non-factive predicates (with a non-factive interpretation).

⁸ We follow Haegeman & Ürögdi (2010a,b) in using the labels RCP and NCP, rather than the CP and cP of de Cuba & Ürögdi (2009a,b), for ease of exposition. The definitions of (non-)referential CPs above are altered to reflect this.

⁹ Page numbers refer to a manuscript version of this paper.

4. Referentiality in *wh*-clauses: a proposal

OUR CLAIM: CLHCs and embedded exclamatives can only realise RCP, not NCP.

4.1 CLHCs can be RCPs

- Only RCPs are able to occur as the complement to factive predicates.
- CLHCs are able to occur as the complement to factive predicates.
- Conclusion: CLHCs are able to realise RCP.

(29)a. She forgot [**how** he lived in Spain]. ⇒ he lived in Spain

b. She didn't forget [**how** he lived in Spain]. ⇒ he lived in Spain

4.2 CLHCs cannot be NCPs

4.2.1 Ability to be the information focus/Main Point of Utterance (MPU) (Simons 2007)

Table 3 - Information focus in complementation structures (based on de Cuba & Ürögdi 2009).

structure	information focus/MPU
matrix predicate + NCP	NCP complement clause
matrix predicate + RCP	matrix predicate

(30)A: What happened yesterday? (examples based on Simons 2007: 1041 (16))

B: Jack told me [**how** Louise has been on sick leave for the past 3 months].

B': Jack told me [that Louise has been on sick leave for the past 3 months].

(31)A: How come Louise doesn't come to our meetings anymore?

B: # Jack told me [how Louise has been on sick leave for the past 3 months].

B': Jack told me [that Louise has been on sick leave for the past 3 months].

4.2.2 Islands

- Haegeman & Ürögdi (2009a, b) offer an account in terms of the referentiality of clausal complements for the traditional observation that factive complement clauses are (weak) islands:

- extraction of both arguments and adjuncts is possible from NCPs:

(32)a. **Which employee** did Fred think [that Sam wanted to fire ~~which employee~~]?

b. **Why** did Fred think [that Sam wanted to fire Mary **why**]?

- extraction of arguments but not adjuncts is possible from RCPs:

(33)a. **Which employee** did Fred forget [that Sam wanted to fire ~~which employee~~]?

b. * **Why** did Fred forget [that Sam wanted to fire Mary ~~why~~]?

- Note that CLHCs are also islands for extraction, albeit strong islands.

- extraction of neither arguments nor adjuncts is possible from CLHCs:

(34) Fred told me [**how** Sam wanted to fire Mary].

(35) a. * **Which employee** did Fred tell you [how Sam wanted to fire which-employee]?

b. * **Why** did Fred tell you [**how** Sam wanted to fire Mary ~~why~~]?

- Cf. de Cuba (2012): 'The generalization is that it is more difficult to extract from referential phrases' (cf. Hinzen & Sheehan 2011).
- Why are CLHCs strong islands, whilst other RCPs are weak islands? Linked to their 'wh' nature?
- Although definite DPs are also strong islands, distributional differences (cf. section 2) militate against the idea that CLHCs too are definite DPs, and thus strong islands (contra Legate 2010).

CONCLUSION: Not only can CLHCs realise RCP, but in fact that they have to: there are no CLHC NCPs.

4.3 Even non-factive CLHCs are RCPs

CONSEQUENCE: Even when the propositional content of the CLHC is not presupposed, there should nevertheless be indications that the complement clause is referential.

(36)The point for your average voter is that if they see the EDL marching through their streets shouting about [**how** the neighbourhood is about to be swamped by Muslims] or [**how** the UK is going to be Islamified by 2040], they are also receiving these cues from other sections of British society.

(37)The schoolboy went on: "Politicians always seem to talk about how much they value education, [**how** it's a priority], [**how** it's safe in their hands]. Well, from where I'm standing it doesn't look very safe at all."

(38)Tony LaRussa is the same turkey that allowed steroids to run rampant in his clubhouse for decades- and stood by as McGwire lied about [**how** he never used].

- No conceptual conflict in considering these cases to be referential, despite the fact that there is no corresponding real-world referent for the content of the CLHC.
 - o Haegeman & Ürögdi (2010b: 237): 'Just as referential DPs have the potential to refer even if the entity they could refer to is not present in the context and may not even exist, by analogy propositions need not be given or presupposed in order to be referential.'
 - o Melvold (1991: 104, f.n. 8): the extension of reference can be an intension i.e. 'a concept or an image in the mind of an individual'.
- We now provide syntactic evidence in support of the view that CLHCs always refer.

4.3.1 The anaphoric pro-form *it*

- Reinterpreting a test applied by Kiparsky & Kiparsky (1971), de Cuba & Ürögdi (2009a,b) point out that RCPs and NCPs differ in the anaphoric pro-forms which can be used to refer to them:
 - o *so* anaphorically refers to NCPs
 - o *it* anaphorically refers to RCPs

(39) a. John supposed [that Bill had done it], and Mary supposed [it/so] too. [NCP/RCP]

b. John regretted [that Bill had done it], and Mary regretted [it/*so]too. [RCP]

(example (21) from de Cuba & Ürögdi (2009a: 14)).

- Here we focus on *it*, which de Cuba & Ürögdi (2009a,b) claim can refer only to RCPs.

- it referring in cases where presupposition holds:

- (40)a. Mary regretted [**how**, throughout the years, her and John had spent so much time arguing], and John regretted it too. [CLHC]
 b. Mary regretted [**the amount of time** her and John had spent arguing, and John regretted it too]. [definite DP]

- it referring in cases where presupposition is suspended:

- (41)a. The EDL lied about/are always going on about [**how** we're about to be swamped by Muslims], and the BNP lied about it/are always going on about it too. [CLHC]
 b. The EDL lied about/are always going on about [**the enormous number** of Muslims that live in the UK], and the BNP lied about it/are always going on about it too. [definite DP]

CONCLUSIONS

- (i) Support for the view of de Cuba & Ürögdi that the ability of the pro-form *it* to pick up the reference of a particular clause is not related to the factivity of the clause.
- (ii) If *it* indeed refers back to a referential clause, then even when the presupposition of a CLHC or definite DP is suspended, the CLHC/DP nevertheless remains referential.

4.3.2 *it*-cleft with *which*

- de Cuba & Ürögdi (2009a, b) (building on den Dikken (2006)): only specific clefted XPs and factive complements are acceptable with *which*:

- (42)a. It's [this book] **which** I want to read. [referential]
 b. * It's [a doctor] **which** I want to become. [*non-referential]

- (43)a. It's [that John didn't show up] **which** I resent. [referential]
 b. * It's [that John didn't show up] **which** I believe. [*non-referential]

- As expected if they are RCPs, CLHCs can also occur in *it*-clefts which involve *which*¹⁰ (cf. (44)), even when non-factive (cf. (44)):

- (44)a. It's [**how** he never even told us he was leaving] **which** I don't like (not the fact that he's leaving per se).
 b. There were lots of things which were less than perfect at the party. But it's [**how** the decorations looked so terrible] **which** he kept going on about.

4.4 Summary

- Like other RCPs, CLHCs can be embedded under both factive and non-factive predicates:
 - o factive interpretation when embedded under a factive predicate.
 - o non-factive interpretation when embedded under a non-factive predicate.
- Even when CLHCs are non-factive, they remain referential → CLHCs are always RCPs.
- These conclusions extend to embedded exclamatives.

¹⁰ Note that native speakers deem many other cases of *it*-clefted CLHCs and exclamatives to be less than fully grammatical. The reason for this variation is unclear and requires further investigation.

Table 4 - *that*-clause realisations of RCP and NCP complements to factive/non-factive predicates

	RCP	NCP
factive predicate (<i>forget</i>)	factive <i>that</i> -clause	*
non-factive predicate (<i>believe, tell</i>)	factive-like <i>that</i> -clause	non-factive <i>that</i> -clause

Table 5 - *wh*-clause realisations of RCP and NCP complements to factive/non-factive predicates

	RCP	NCP
factive predicate (<i>forget</i>)	factive CLHC/exclamative	*
non-factive predicate (<i>believe, tell</i>)	non-factive CLHC/exclamative	---

5. Conclusions and directions for further research

5.1 Conclusions

- Building on the work of de Cuba & Ürögdi (2009a,b) and Haegeman & Ürögdi (2010a,b), we have demonstrated that the parallel between CP and DP with regard to referentiality holds not only between *that*-clause CPs and DPs, but also between certain *wh*-clause CPs and DPs.
- Differences in the syntactic behaviour of CLHCs/exclamatives in comparison to *that*-clauses are attributed to the fact that:
 - that*-clauses can realise both RCP and NCP, CLHCs/exclamatives only realise RCP.
 - CLHCs/exclamatives are *wh*-clauses, *that*-clauses are not.
- The behaviour of CLHCs and exclamatives provides further support for the idea that factivity is not syntactically encoded, but rather arises when an RCP occurs in certain (embedded) contexts.

5.2 Contribution to the workshop theme

- CLHCs/exclamatives and definite DPs are similar not only in that they are all taken to involve a presupposition of their content, but also in that this is suspended in precisely the same contexts.
- Distributional differences between CLHCs/exclamatives and DPs argue against accounting for this similarity by assimilating the former to the latter - CLHCs/exclamatives are not DPs.
- Rather, there is a true parallelism between the CP and DP domains: referentiality is a property which can apply in both the CP and DP domain, giving rise to the same effects.

5.3 Issues of interest for further research

- **A unified account of referential CPs**
- **Goal:** a unified account of the syntax of referential CPs, which can capture both the novel observations made here for *wh*-clauses and the patterns observed and explained for *that*-clauses in the accounts of de Cuba & Ürögdi (2009a,b) and Haegeman & Ürögdi (2010a,b), including island status and availability of Main Clause Phenomena (e.g. topicalisation).
- This requires investigation into how referentiality is to be syntactically encoded. Possible approaches to explore:
 - truncated structure: de Cuba & Ürögdi (2009a,b) - NCPs involve an additional CP layer not found in RCPs.

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