ON THE DIFFERENTIAL USE OF SUBTYPES OF ENGLISH CLEFTS IN DIALOGUE^{*}

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1. Introduction

Clefting is a syntactic mechanism which enables speakers to highlight a constituent of their sentence in order to focus attention on it. English cleft constructions include *IT*-clefts, *WH*-clefts and reverse *WH*-clefts, as illustrated in Table 1 below. While the structural properties and basic discourse functions of different cleft constructions in a variety of languages are now quite well understood, less is known about speakers' use and pronunciation of particular cleft constructions in context. We report here on the first stage of an ongoing corpus study which compares the use of these three English cleft constructions in a corpus of argumentative spoken dialogue. Our research questions include: What motivates speakers to employ (i) a cleft over a non-cleft and (ii) a particular type of cleft? (iii) How do they pronounce them?

For the pilot study, we reanalyze part of the data from a previous corpus study (Hedberg and Fadden 2007) which compared exemplars of the three cleft constructions for aspects of referential (cognitive status) and relational (topic-comment) information structure. Our main goal is to analyze the focus status of the clefted constituents in context. Table 1 indicates the number of tokens of each cleft construction in both the full corpus and the sub-corpus.

Claft Type	Example	2007 full corpus	Current sub-corpus	
Cleft Type	Example	# of tokens	# of tokens	
IT-cleft	It's <i>the ECONOMY</i> that	11	9	
	people will be voting on.			
WH-cleft	What people will be voting	65	10	
	on is <i>the ECONOMY</i> .			
REV-cleft	<i>The ECONOMY</i> is what	25	5	
	people will be voting on.			
Total		101	24	

Table 1. Distribution of cleft types in two McLaughlin Group corpora.

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The 2007 corpus consisted of 101 audio-file clips of cleft sentences that had been extracted from video-recordings of 13 transcribed half-hour televised episodes of *The McLaughlin Group* aired in 2001 and 2002 on the Public Broadcasting Network in the United States. This program was described by Acton (2019) as "a weekly political talk show featuring the discussion of topical issues among five pundits, including host John McLaughlin, who moderated and added commentary of his own." For our pilot study we constructed a sub-corpus of 24 individual-denoting DP-clefts because all three cleft constructions permit DP clefts and because concrete discourse referents such as people and organizations are easier to track than abstract referents such as events and situations.

2. Prosodic Analysis: Pitch accent prominence (P-scale)

2.1 ToBI annotation and examples

Using Praat (Boersma & Weenink 2021), we annotated the intonation of each token with a version of ToBI (Silverman et al. 1992)¹. An example of each cleft type in context along with its annotated pitch track is shown in (1)-(3).

(1) IT-cleft

Mr. Kudlow: Spending *is* lagging. It's an important point, John, analytically. Eleanor is onto something. Investment goes down first, then production, and then consumer spending, as the unemployment rate goes up. [4/20/01]

And it's **THAT PART** of the *reCESSion* cycle that the **FED** is **TRYing** to head **OFF**. H* L+H* L+!H* L-L% H* L+H*. L+!H*L-L%

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	And	it's	THAT	PART	of	the	reCESSion	cycle	the	4 Million	FED	is	TRYing	to	head	OFF
			H*	$L + H^{\bullet}$			L+!H*	L-L%			H*		L + H*			L+!H* L-L%

(2) *WH*-cleft

Mr. Kudlow: But the POINT is the TAI
wanese don't even WANT AEGis. $H^*L-L\%$ $L+H^*$ L- H^* $H^*L-L\%$ H^* What they WANT
H*L- H^* H^* L- H^* H^* L-L%

¹ We coded for seven pitch accents: H^* , $!H^*$, $L+H^*$, $L+!H^*$, L^*+H , $H+L^*$, L^* ; three phrase accents: H-, !H-, and L-; and three boundary tones: H%, !H%, and L%. We supplemented the standard AME-ToBI categories with a category of "upstep" (;) and "increased range" (\uparrow).



(3) **REV-cleft:** Mr. McLaughlin: NEXT YEAR is an eLECtion year, and THEY KNOW that H*. !H* !H* L-H% L+H* !H* is GOing to BE what PEOPle will be VOTing on, come noVEMber the *eCONomv* H* L-L% H* !H* L* L-L% L* L+H*of next YEAR, not ANTHrax, not the way the PRESident has HANDled the WAR. L* L-L% L+H* L-L% !H* L-L% !H* H*L-H% the *eCONomy*. [10/21/01] H* L-L%



2.2 Prominence Strength Score (P-score)

Based on our previous experience in interpreting pitch accents in English dialogue, we devised the "P-scale" shown in Table 2 so that we could then code our 24 cleft sentences for the degree of prosodic force with which they are pronounced, where '1' is the lowest degree of prosodic prominence and '7' is the highest degree of prominence.

Table 2. Pitch-accent prominence ranking (P-scale)

Degree of Prominence	1	2	3	4	5	6	7
Pitch accents	L*	!H*	H*	L*+H	L+!H*	L+H*	L+;H*

We calculated a prominence strength score ("P-score") for each cleft token by averaging the P-scale values of the pitch accents realized in each token. The P-scale coding and P-value of the examples in (1)-(3) above is shown in examples (4)-(6) below:

- (4) *IT*-cleft (P-score: **4.67**) And it's *THAT PART* of the *reCESSion* cycle that the *FED* is *TRYing* to head *OFF*. $H^* L+H^* L+!H^* L-L\% H^* L+!H^* L+!H^* L-L\%$.
- (5) WH-cleft (P-score: 2.66) What they WANT is the KIDD deSTROYer. H^* L- H^* $!H^*$ L-L%.

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(6) REV-cleft (P-score: 2.43)
the eCONomy is GOing to BE what PEOPle will be VOTing on, come noVEMber of H* L-L% H* !H* L* L* L-L% L+H*
next YEAR
L* L-L%.
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Since the use of cleft constructions in context involves aspects of both semantics and syntax in addition to prosody, we next introduce the conceptual background underlying our approach to coding the properties of focus expressed by the cleft-tokens in our corpus, with respect first to semantics in Section 3, and then to pragmatics in Section 4.

3. Semantic aspects of focus interpretation

3.1 Semantic subtypes of focus

Adopting the Alternative Semantics approach to focus initiated in Rooth 1985, according to which focused expressions are interpreted in relation to alternatives, Van der Wal (2021) presents the diagram in Figure 1 to illustrate different semantic and pragmatic aspects of focus interpretation. She proposes the term 'simple focus' for the semantic subtype of focus where nothing else happens beyond selection from a set of alternatives. Note that in the general case (cf. Krifka 2008, p. 249), the set of alternatives to the designated focus is restricted only by the denotation properties of the expression in focus. The alternative set can be open or closed and can vary in cardinality and degree of explicitness. The "size" of the focused constituent can also be more or less narrow or broad.





Van der Wal's three other semantic subtypes of focus involve distinctions conventionally imposed on the use of focus by particular lexical or syntactic construction types in particular languages. Thus, a focus can be restricted by an existential presupposition ('identificational focus'). A focus can also perform a particular 'operation' on its set of alternatives. For example, one or more alternatives may be excluded ('exclusive focus') or the alternatives may be ranked along a scale ('scalar focus').

We suggest that additional operations can be imposed as well and propose the typology of semantic focus operations shown in Table 4.

Focus operation	Input alternative set	Designated focus and output alternative set	Definition
Simple - OPEN	$\{a, b, \dots\}$	$\{a, b,\}$	Selecting from open set of values
Simple - CLOSED	$\{a, b,n\}$	{ a , b, <i>n</i> }	Selecting from closed set of values
Scalar	{a, b, c, ()}	< a , b, c, ()>	Establishing scalar ordering of
			values
Exclusive	$\{a, b, ()\}$	$\{a, ()\}$	Excluding one or more other values
Additive	$\{a, b, ()\}$	$\{a, b, ()\}$	Adding a value

Table 4. A typology of possible focus operations on alternative sets.

3.2 Semantic properties of English *IT*-cleft focus: Presupposition

An English *IT*-cleft focus is an 'identificational' focus in van der Wal's system because the cleft clause evokes an existential presupposition. Krifka (2008, p. 256) points out that "existential presuppositions do not arise with every use of focus." Compare his example of the *IT*-cleft in (a) and *WH*-question answer in (b) to the focus with the lexical particles *not even* in (c) and *WH*-question answer in (d).

- (7) a. It wasn't $[JOHN]_F$ who stole the cookie.
 - b. A: Who stole the cookie, John or Mary?
 B: [JOHN]_F stole the cookie.
 - c. Not even $[MAry]_F$ managed to solve the problem.
 - d. A: Who, if anyone, has solved this problem?B: [NO one]_F solved this problem.

The existential presupposition expressed by an *IT*-cleft clause is standardly taken to be a pragmatic presupposition in the sense of Stalnaker (1976). It survives under negation and questioning, thus passing the 'family test' for presupposition of Chierchia & McConnell-Ginet (2000), or 'projects' content which is 'not at issue' (Simon et al, 2010). Presuppositions affect truth-conditions in that a statement instantiating a presupposition violation cannot be judged to be either true or false. Presuppositions can be denied, as in example (8a) from Hedberg (1990), but cannot be as easily cancelled as the conversational implicature in (8b) from Chierchia & McConnell-Ginet (2000, p. 22-23):

- (8) a. It wasn't Oakland *or* San Francisco that won. The game was called off because of the earthquake.
 - b. Mary used to swim a mile daily. I wonder whether she still does.

3.3 Semantic properties of English IT-cleft focus: Exhaustivity

English *IT*-cleft focus also exhibits an inherent 'exclusivity' or 'exhaustivity' effect, as shown in example (9) from Krifka (2008, p. 259), who explains: "This example says that nobody else but John and Bill stole a cookie."

(9) It is [JOHN and BILL]_F that stole a cookie.

Zimmermann & Onea (2011) emphasize that the exhaustive meaning associated with English *IT*-clefts "is not part of the asserted information" and "does not form part of the truth conditions" (p.1666), unlike the asserted exhaustivity associated with the focus-sensitive adverb *only*. Compare (10a-b) [with prosodic notation added by us]:

- (10) a. I know that Marcel had a pizza. But I just discovered that it was *ONly* [a pizza]_F that he had.
 - b. # I know that Marcel had a pizza, but I just discovered that it was [a *PIZza*]_F that he had.

Thus, the exhaustivity implied by (10a), with *only* as well as *IT*-cleft focus, is 'at issue'; but the exhaustivity implied by (10b), with *IT*-cleft focus alone, is 'not at issue.'

In (11)-(13) we show the outcome of tests proposed by van der Wal (2021: 29-31) to identify the semantic vs pragmatic status of focus interpetations. It can be seen that the correction of *only*-exhaustivity shown in (11B2) does not give rise to the semantic contradiction associated with the correction of *IT*-cleft exhaustivity in (12B2). In addition, the cancellation of *IT*-cleft exhaustivity shown in (12B3) is not as felicitous as the cancellation of simple prosodic focus exhaustivity in (13B3).

- (11) A: Did only [JOHN and BILL]_F steal the cookies?
 - B1: No, their sister was in on the theft too.
 - B2: #Yes, but their sister was in on the theft too.
 - B3: #Yes, and their sister was in on the theft too.
- (12) A: Was it [JOHN and BILL]_F who stole the cookies?
 - B1: #No, their sister was in on the theft too.
 - B2: Yes, but their sister was in on the theft too.
 - B3: ?Yes, and their sister was in on the theft too.
- (13) A: Did [JOHN and BILL]_F steal the cookies?
 - B1: #No, their sister was in on the theft too.
 - B2: Yes, but their sister was in on the theft too.
 - B3: Yes, and their sister was in on the theft too.

IT-cleft exhaustivity thus inhabits a middle ground between purely truth-conditional semantics and purely inferential pragmatics. At a constructional level, it fits the Gricean

criterion of being a component of what is conventionally 'implicated' rather than 'said' (Grice 1975); or an instance of Relevance Theory encoded 'procedural' as opposed to 'conceptual' meaning (e.g. Clark 2013); or a matter of 'CG management' vs 'CG content' in Common Ground approaches to formal semantics (Krifka 2008). We follow Gutzmann's (2015) 'hybrid semantic' approach, laid out in Table 5 below, and include *IT*-cleft exhaustivity within the domain of 'use-conditional semantics' along with other non-truth-conditional interpretive effects of lexical and constructional markers of information packaging, expressive and social meaning, such as topic markers, epithets, exclamations, and honorifics.

 Table 5. Conventions vs. truth conditions (Gutzmann 2015).

	+ truth-conditional	- truth-conditional
+ conventional	descriptive meaning	use-conditional meaning
- conventional	pragmatic enrichment	conversational implicature

On this view only the bottom righthand quadrant is purely "pragmatic" (although even within that quadrant, generalized conversational implicatures would need to be considered more 'conventional' than particularized implicatures). Table 6 below shows how the exhaustivity inferences discussed above would be classified under this approach.

Table 6. Hybrid semantic subtypes of exhaustivity inferences.

+ truth-conditional	- truth-conditional
+ <i>conventional</i> Fred <i>only</i> eats [VEGetables] _F	It is [VEGetables] _F that Fred eats
- conventional	Fred eats [VEGetables] _F

4. Pragmatic aspects of focus interpretation

4.1 Pragmatic subtypes of focus

In addition to distinguishing four semantic types of focus, Van der Wal (2021) follows Krifka (2008) and Zimmermann and Onea (2011), in distinguishing several pragmatic effects of focus, such as the distinctions in the communicative point of focusing strategies originally proposed by Dik (1997) that are shown below in Figure 2.



Figure 2. Focus strategies distinguished by communicative point (Dik 1997:33).

Krifka (2008: 251-252) includes answering overt or covert questions, selecting from specified lists, corrections, confirmations, and the highlighting of parallels as the "main pragmatic uses of focus" (p. 253). Similarly, Zimmerman and Onea (2011) and van der Wal (2021) distinguish 'corrective,' 'selective,' and 'contrastive' pragmatic subtypes of focus. However, as seen in Figure 1, van der Wal views them as pragmatic effects or 'flavors' which can accompany focus expressions in particular contexts: "To all four main semantic types of focus, pragmatic effects can be added" (p. 30). Cruschina (2021) adds 'mirative focus' as a pragmatic subtype of focus.

We agree with van der Wal's view that focusing can simultaneously have both semantic and pragmatic effects. She explains that an utterance used for 'corrective' focus at the pragmatic level can simultaneously express 'exclusive' focus at the semantic level. We would add that uses of English *IT*-clefts express both 'identificational' and 'exhaustive' focus at the semantic level, and can simultaneously have one or more pragmatic effects such as 'correction', 'confirmation', 'parallelism' or 'mirativity.'

4.2 Towards a typology of pragmatic focus

Analyst	Pragmatic-	Definition	Focus-subtype examples	Semantic-
Dik/ Krifka/ Z&O, Cruschina/ vanderWal	Completive/ Answer/ Information/	A contextually open set (only pragmatically delimited)	{Who stole the cookie?} [<i>PEter</i>] _{<i>F</i>} stole the cookie.	Simple
Dik, Krifka/ Z&O, vanderWal	Parallel/ Contrastive	To express a contrast with a referent evoked in the context.	An <i>American</i> farmer talked to a <i>Canadian</i> farmer	Simple
Dik/ Z&O, vanderWal	Selecting/ Selective	To express a selection from a set of contextually evoked alternatives.	{Would you like peanuts or pretzels?} I would like <i>[PEAnuts]</i> F.	Simple
Dik/ Krifka, vanderWal/ Cruschina	Rejecting, Restricting/ Exclusive, Exhaustive/ Exhaustive	Exhaustive identification or the exclusion by identification with respect to a set of alternatives.	{Mary stole the cookie.} No, [MAry] _F didn't steal the cookie. It was(n't) [MARY] _F who stole the cookie. Only [MAry] _F stole a cookie.	Exclusive
Dik, vanderWal/ vanderWal, Krifka, Z&O Cruschina	Replacing/ Corrective	Correction of explicitly given alternatives.	{Mary stole the cookie.} (No,) [<i>PEter</i>] _F stole the cookie.	Exclusive
Krifka	Confirmative		{Mary stole the cookie.} Yes, <i>[MAry]</i> _F stole the cookie.	Exclusive

Table 7. A new typology of subtypes of focus: An organized summary of the literature.

Krifka/	Scalar, Emphatic/	The proposition asserted is more	Even [<i>PEter</i>] _{<i>F</i>} stole a cookie;	Scalar or Simple
vanderWal/	Scalar/	unlikely or	[Wild HORses] F wouldn't	
Crischina	Mirative	unexpected with respect to the alternative propositions.	drag me there	
Dik/Krifka	Expanding/		<i>[PEter]_F</i> also stole a	Additive
	Additive		cookie.	

4.3 Ranking focus subtypes on a gradient scale of contrastive strength: C-scale

Cruschina (2021) distinguishes four subtypes of focus expressed by syntactic focus fronting constructions in European languages. We included his definitions in Table 7 above. In addition, he proposes (p. 2) that they can be ordered along the scale shown in (14) "on the basis of their degree of contrast against the alternatives."

(14) information focus > exhaustive focus > mirative focus > corrective focus

We adopted Cruschina's typology of focus for our pilot study of the use of cleft constructions because clefting is a syntactic mechanism for expressing focus and hence should be quite comparable to focus-fronting in non-clefted sentences.

Furthermore, the idea that focus marking constructions such as clefts can be used to degrees of contrastive stength in context has other precedents in the recent literature. Thus, Destruel and Velleman (2014) say, "Expressions are contrastive to the extent that they conflict with expectations. Crucially, this allows for degrees of contrast, corresponding to stronger or weaker conflict with expectations....Clefts are more felicitous the more they conflict with interlocutors' expressed expectations." Similarly, Destruel, Beaver & Coppock (2019) say, "results from naturalness tasks suggest that clefts [in both English and French] are improved by a property we term 'contrariness'. This property has a gradient effect on felicity judgments: the more strongly interlocutors appear committed to an apparently false notion, the better it is to repudiate them with a cleft." Note that the corrective and mirative focus types we adopt from Cruschina's typology intrinsically involve elements of contrariness or conflict with expectations, while exhaustive focus involves the exclusion of alternatives contextually assumed to be plausible.

Now that we have introduced the conceptual background for our pilot study, we turn next to the results. In sections 5 and 6, we discuss our findings of a correlation between prosodic and contrastive strength, and differences between the three cleft constructions.

5. PILOT STUDY FINDING #1: The P-scale correlates with the C-scale

Table 8 shows the distribution of our 24 sub-corpus cleft tokens with respect to their Pscores and their subtype of focus according to Cruschina's typology. The four focus types are indicated in the column headings of Table 8 in order from left to right mirroring their increasing degree of contrastive strength as proposed by Cruschina, for which we use the term "C-Scale". The three syntactic types of cleft construction are each represented in their own row. The P-scores of the 24 cleft tokens are listed in the internal cells of the table. The average P-score for each focus subtype and each construction are indicated, respectively, in the last row and second column of the table.

Cleft Type	Average P-Score	Information	Exhaustive	Mirative	Corrective
IT	3.84		2.50, 3.57	3.50,	4.00, 4.25,
				3.60, 4.17	4.33, 4.67
WH	3.06		2.27, 2.86,		2.66
			3.13, 3.67,		
			3.79		
REV	3.07	2.00, 2.75,	2.43, 3.00,		
		3.22	3.25, 3.50,		
			3.50, 4.00		
Average P-score	e	2.66	3.19	3.76	3.98

 Table 8. Correlation between degree of prosodic and pragmatic strength.

Table 8 shows that the degree of prosodic strength on our proposed P-scale realized by our cleft tokens varies in exact correlation with their degree of contrastive strength on our proposed C-scale: the average P-score indicated in the bottom row of the table increases in step with the proposed degree of strength of focus subtype: 2.66, 3.19, 3.76, and 3.98.

5.1 Focus-type classification, P-score, and prosodic annotation of *IT*-cleft tokens

The nine *IT*-cleft tokens in our sub-corpus are shown in (15)-(23), in order of increasing P-score. The tokens are labeled according to their subtype of pragmatic focus as well as the semantic operation they are used to perform on the set of their contextual alternatives.

- (15) Exhaustive focus, exclusive [P-score: 2.50]
 Ms. Clift: these were WOmen and CHILDren and ciVILians who were MURDered
 H* L* L-L% H* L-L% H* L-L%
- (16) Mirative focus, scalar [P-score: 3.50]
 Mr. McLaughlin: that's QUITE a LOAD of GUNS that they're GIVing. [4/27/01]
 H* !H*
 L+H* L-L%
 H* L-L%
- (17) Exhaustive focus, *exclusive* [P-score: 3.57]
 Ms. Clift: But the big thing that comes out of this, to me, is that it's
 JOHN mcCAIN who gets the BIG legislative TRIumph so FAR in this first H* L+H* L-L% H*L- H* L-L% L*
 HUNDred-day PERiod while PRESident BUSH is looking rather PASSive H* L+H*L-L%
 on a NUMber of issues across the BOARD, eSPECially foreign POLicy. [3/30/01]

[4/27/01

(18) Mirative focus, *scalar* [P-score: 3.60] Mr. Blankley: Well, look, I mean, on a number of levels, certainly it's an extra**ORD**inarily **UNheRO**ic uh IMage that they've creATed. [10/21/01] L-L+H* H* L+!H*L-L%. H*L-L% H+L* H-!H%. (19) Corrective focus, (anti-)exclusive [P-score: 4.00] Mr. Barone: Well, it's not clear that the – whether it was the fbI or other AGencies that got this inforMATion. [6/14/02] H*L-L% H* L+H* H-L% L-(20) Mirative focus, *simple* [P-score: 4.17] Ms. Clift: Well, I think it was YOUR PRESident, YOUR past emPLOYer L+;H* H*L-L% H* H* L-L% who opened the **DOOR** for us to CHIna. [4/6/01] L+:H* **!H*** L-L% (21) Corrective focus, *(anti)-exclusive* [P-score: 4.25] Ms. Clift: And it's NOT only the aclU that's going to be at the BARRicades on L+!H* L-H% L+H* Н* THIS one. But conSERVative rePUBlicans who don't want the GOVernment H* L-L% [6/14/02] taking their GUNS are NOT going to LIKE the way this CASE is HANDled, EITHer. (22) Corrective focus, *exclusive* [P-score: 4.33] Pat Buchanan: It is the COMMunist chiNESE who are be**HAV**ing !H* H-L% L+H* L+:H* L-L-!H% as a **COLD WAR POWer** right now. L-L% H* !H* L+H* [4/6/01] (23) Corrective focus, *exclusive* [P-score: 4.67] And it's THAT PART of the reCESSion cycle that the FED is TRYing H* L+H* L-L% H*. L+H* L+!H* to head **OFF**. L+!H* L-L%. [4/20/01]

5.2 Relative prominence of different pitch accents: Support from other studies

Several recent studies of the use of focus-marking devices also report correlations between proposed differences in pragmatic strength and strength of prosodic realization. For example, Bianchi, Bocci, and Cruschina (2016) show that different pragmatic types of focus fronting in Italian have distinctive prosodic properties, and that the accompanying pitch accents vary in pitch height in ways similar to those exhibited by the English cleft tokens in our study: i.e. in order of increasing pragmatic strength: simple focus (H+L*), mirative focus (H*), and corrective focus (L+H*).

Similarly, Navarette-González (2021) shows that while parallel, selective, and corrective focus in Catalan Sign Language are all accompanied by the prosodic gestures of left-right body leans (*bl*), head-tilts (*ht*) and the use of opposite sides of space to localize the contrasted referents, an additional head nod (*hn*) indicates exclusion in selective focus, and an additional head thrust (*hthr*) triggers an exhaustive, counter-expectational reading in corrective focus, as summarized in Figure 3.



Figure 3. Prosodic marking of different types of contrast in Catalan Sign Language.

She concludes (p. 15) that "the fact that all types of contrast share the same combination of markers in most of the examples provides evidence that we are dealing with a unique notion of contrast with different degrees of contrastiveness," supporting Repp's (2016) claim that "different degrees/types of contrast should correlate with different markers."

Thirdly, in a study comparing canonical and non-canonical *WH*-in-situ questions in Northern Peninsular Spanish, González and Reglero (2023) found that canonical, information-seeking *WH*-in-situ questions had significantly lower nuclear peaks and tonal ranges, compared to non-canonical, echo-repetition and echo-surprise *WH*-in-situ questions, which also differ from each other along the same dimensions—in addition to exhibiting a lower degree of final rise (H% versus upstepped ;H% boundary tone).

6. PILOT STUDY FINDING #2: IT-clefts differ from WH-clefts and REV-clefts

6.1 Correlated C-scale and P-scale differences between cleft constructions

Table 8 also shows that the *IT*-clefts in our data set differ from *WH*-clefts and *REV*-clefts in their tendency to be used to express stronger sub-types of pragmatic focus. Our *IT*-cleft tokens express mostly mirative focus (three cases) and corrective focus (four cases), in addition to two cases of exhaustive focus; whereas our *WH*-cleft and *REV*-cleft tokens express mostly exhaustive focus, with only one token (a *WH*-cleft) used for corrective focus and with three of the rev-clefts analyzed as expressing mere information focus. Our *IT*-cleft tokens also exhibit higher average P-scores than do *WH*-cleft and *REV*-cleft tokens: 3.84 as compared to 3.06 and 3.07.

The subtypes of focus marked by the English clefts in our small pilot study are remarkably consistent with Cruschina's conclusions concerning the subtypes of focus comparatively associated with focus fronting (FF) in several European languages. Table 9 shows his conclusions concerning how focus-fronting constructions are differentially distributed across the sub-types of focus defined in Table 7 above, which he proposes to vary along a scale of increasing contrastive strength. We can represent the findings of our pilot study as shown in Table 10.

Fronted focus types	information	exhaustive	mirative	corrective
French			\checkmark	
Italian/Spanish			\checkmark	
Hungarian		\checkmark	\checkmark	
Sicilian/Sardinian				

Table 9. The association between focus fronting and focus types (Cruschina 2021).

Table 10. The association between cleft focus and focus types (our pilot study).

Cleft focus types	information	exhaustive	mirative	corrective
English IT-clefts		\checkmark	\checkmark	\checkmark
English WH-clefts		\checkmark		
English REV-clefts	\checkmark	\checkmark		

6.2 Towards an explanation of cleft-construction differences: The QUD framework

The Question Under Discussion (QUD) framework of discourse semantics (e.g. Roberts 2012, Riester 2019) has a number of advantages for explaining our preliminary findings. For example, it allows for the possibility that contrastive focus alternatives need not be explicitly expressed because it allows for the high frequency of discourse situations in which the currently relevant QUD is implicit. Note that an *IT*-cleft sentence itself does not need contextual support since it displays in its syntactic form the QUD that it answers. Examining the QUD-annotated contexts of our *IT*-cleft tokens reveals that they all express nuances of contrast, contrariness, or counter-expectation predicted by current accounts.

For example, our prosodically strongest *IT*-cleft token, shown in context in (24) is used by Mr. Kudlow to reactivate a previous QUD that had been resolved to enable him to modify his answer in light of discourse material accompanying discussion of the current QUD. He corrects himself by proposing to replace his previous answer with the answer provided by another discourse participant (Ms. Clift).

(24) [4/20/01] *Mr. McLaughlin:* ISSUE 1: ALAN THE AUDACIOUS. Alan Greenspan knows how to strike back with a vengeance.... On Wednesday he shocked Wall Street and delighted investors with a surprise out-of-cycle one-half point drop in interest rates.

... [7 intervening turns addressing QUD1, QUD2, QUD3]

QUD4 {Why did Greenspan drop interest rated now? Which part of the recession cycle was he targeting?}

A4.1 Mr. McLaughlin: Is it true that he did this out of cycle because he wants to prevent layoffs, because if layoffs occur, then that would really plunge us into a recession? *A4.1' Mr. Kudlow:* Well, the early warning indicators of layoffs and unemployment has been worsening, but the Fed has finally figured out

A4.2 that this is an investment supply-side downturn, that its businesses have stopped investing, and of course the stock market has had a terrible impact on that.

... [6 intervening turns addressing QUD2 and QUD1]

A4.2' Ms. Clift: And you're right; it's a collapse of investment income.

A4.3 But this was a desperate attempt to kind of restore consumer confidence, because if spending collapsed, then we'd really be in trouble

... [1 intervening turn addressing *QUD1*]

A4.3' Mr. Kudlow: Spending is lagging. It's an important point, John, analytically. Eleanor is on to something.

A4.3'' Investment goes down first, then production, and then consumer spending, as the unemployment rate goes up.

A4.3" + QUD4 And it's that part of the recession cycle that the Fed is trying to head off.

We plan to continue exploring the use of clefts in the full McLaughlin Group corpus, adopting QUD theory as a theoretical framework. Some hypotheses suggested by our pilot study which we will explore are that (1) *IT*-clefts tend to be used more emphatically than are *WH*-clefts and *REV*-clefts, (2) they appear to always respond to a current or previous QUD, unlike *WH*-clefts and *REV*-clefts, which can instead introduce and then answer a brand new QUD, and (3) the QUD is always itself clefted in the case of *IT*-clefts, but not *WH*- and *REV*-clefts. Our overall goal will be to explain the syntactic, semantic, pragmatic, and prosodic properties of different syntactic subtypes of clefts and pseudoclefts in English as well other languages.

7. Summary

We reported on a small pilot study of the use of three types of English cleft constructions in a corpus of argumentative discourse. We compared their prosodic properties with semantic and pragmatic properties of their focus constituent. We found them to differ on a gradient scale of strength of degrees of pragmatic prominence that linearly correlates with a second gradient scale of strength of degrees of pitch-accent prominence. Finally, we suggested the hypothesis that the distinct semantic and pragmatic properties of the three cleft constructions mirror their respective syntactic structures.

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