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Editing Phrases

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Abstract

Disfluencies are viewed as a performance phenomenon in most formal grammatical treatments. In this paper we provide evidence for the need to integrate disfluencies in the competence grammar. We do this by considering the properties of editing phrases (EPs). We study their distribution in the American English corpus Switchboard and the French corpus Rhapsodie. We show that English and French exhibit various distributional differences, as expected from a grammatical phenomenon. We sketch a treatment for distinct classes of editing phrases.

1 Introduction

Disfluencies are viewed as a performance phenomenon in most formal grammatical treatments, though this view is explicitly rejected by psycholinguists e.g., (Levelt, 1983; Clark and FoxTree, 2002) and some theoretical linguists (Blanche-Benveniste, 1984; De Fornel and Marandin, 1996; Ginzburg et al., 2014; Husband, 2015). In this paper we provide evidence for the need to integrate disfluencies in the competence grammar. We do this by considering the properties of editing phrases (EPs).

As a terminological preliminary, we adopt Jens Allwood's term 'own communication management' (OCM) instead of 'disfluency' (Allwood et al., 2005). When a speaker interrupts her utterance with an OCM element, she often uses an editing phrase (EP) to signal a correction or reformulation. A typical structure of self-repair can be illustrated by figure 1, annotated with the labels introduced by (Shriberg, 1994), who was building on (Levelt, 1983).

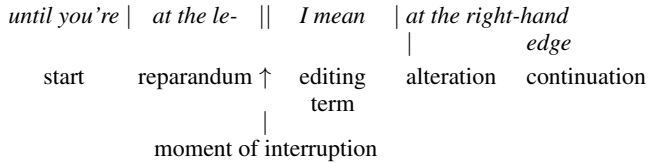

Figure 1: General pattern of self-repair

To determine whether a word or phrase is an editing phrase, one can resort to its semantic meaning, the structural context or both. The annotation guideline for Switchboard defined editing terms as "having some semantic content, e.g. I mean, sorry, excuse me) and usually occur between the restart and the repair". This definition primarily uses the semantic meaning to determine a term's potential of being an EP. If a pause filler (e.g. 'uh') is used between a reparandum and a repair, it will not be categorized as an EP. On the other hand, one could define an EP using just its structural context (e.g., (Levelt, 1983)), which is the approach we adopt here.

Although some differences in use among EPs have been noted in earlier work (see e.g., (Tree and Schrock, 2002)), the substantial syntactic and semantic differences among them have not been detailed. Thus, some EPs can participate in backwards looking (BL) (corrective) OCMs, but not in forwards looking (FL) (monotonically continuative) OCMs:

(1) a. Bo is forty excuse me / or / no fifty.

b. Bo is um # excuse me / or / no fifty.

c. Bo is you know / like fifty.

Similarly, some EPs can occur turn initially, but many cannot:

(2) a. A: Where did you leave the book?

B: # No / Or . . . in the bathroom.

b. uh / you know / I don't know ... in the bathroom.

The main aims of the paper are these. We attempt to demonstrate that editing phrases

- exhibit properties that require stating in an interaction oriented grammar
- exhibit cross-linguistic variation and systematic behaviour

We start in section 2 by describing the distribution of EPs in the American English corpus Switchboard. Section 3 describes the distribution of EPs in the French corpus Rhapsodie. In section 4 we offer some comparative discussion. In section 5 we sketch a formal account of the difference between backwards and forwards looking EPs. Section 6 contains some brief conclusions and future work.

2 The Distribution of Editing phrases in Switchboard

We searched in the Switchboard Dialogue Act Corpus (SWB) (Stolcke et al., 2000)) for OCMs with the structure annotation of [reparandum, +{editing phrase} repair]. This returns OCMs that are repeats (see example 3b) or revisions (example 3a):

(3) a. ('you know' BL) we don't, you know, I don't ask for more.(sw_0049_4353)

b. ('you know' FL) Because I've caught up to about an eight pound carp on a little, you know, a little pole with twenty pound test line. (sw_0563_3458)

The former is an example of backward-looking OCM and the latter forwards-looking.

In Table 1, we list the editing phrases (EP), their number of occurrences as EP (totaling 1942 cases) and the ratios of repeat to revision.

expr.	EP freq.	B/F	total freq.	% post reperandum	ratio repeat: revision
you know	1216	BF	13940	8.72%	1.78:1
well	160	BF	9453	1.68%	1.14:1
I mean	183	BF	3470	5.27%	0.8:1
or	101	B	172	58.72%	0:1
like	95	BF	1970	4.82%	1.07:1
yeah	62	BF	231	26.84%	11:1
oh	49	BF	7348	0.67%	1.18:1
actually	24	BF	314	7.64%	0.71:1
no	5	B	12	33.33%	0:1
excuse me	4	B	45	8.89%	0:1

Table 1: Editing phrases in Switchboard

In English, EPs seem for the most part to perform both BL and FL functions:

(4) a. ('well' BL) but I do live in the better, well, in the best part of the city. (sw_0064_4346)

b. ('well' FL) You, + you'd, well, you'd think there would be. (sw_0392_2405)

c. ('I mean' BL) Well that would be sort of interesting because then you get people from other countries, I mean other parts of the state you know.(sw_0737_2110)

d. ('I mean' FL) I wonder, I mean, I wonder what what really is the answer.(sw_0046_4316)

e. ('like' BL) We're still, like, I'm still covered under my mom and dad's life insurance because I'm still in school. (sw_0998_2175)

f. ('like' FL) Now, do you usually, like, do you usually go and there's lots of other people around (sw_1003_2524)

g. ('yeah' BL) Whatever's left over is disposable in-, disposable, dis-, yeah, discretionary income.(sw_0631_4149)

h. ('yeah' FL) I bet that was a good day, at the, yeah, conference then. (sw_0027_4096)

i. ('oh' BL) She says that when her husband died that he said, oh, that my uncle had said that he would never ha- put her in a rest home. (sw_0351_3207)

j. (‘oh’ FL) we take, oh, one big vacation a year and then maybe, you know, three small vacations.(sw_0036_4379)

However, there are some EPs that can only functions as BL:

(5) a. (‘or’ BL) Myself, uh, uh, I’m just recently, or about to get a divorce. (sw_0097_3798)

b. (‘actually’ BL) I have a foreign, actually I have more than one foreign automobile. (sw_0932_2610)

c. (‘excuse me’ BL) a table saw does take a lot of time, excuse me, a lot of space and is a pretty big investment. (sw_0627_3651)

d. (‘no’ BL) they have one of the clerks up there, no, the bag boys out there, um, that will take the papers, newspaper out of your car.(sw_0798_3736)

Note that in SWB there does not seem to be an editing phrase that is solely FL. Is this a deep fact about the grammar or an accidental feature of this corpus study? ‘I don’t know’ is a candidate to be exculsively FL, but it isn’t a pure one. On the one hand, it resists parallelism repairs, as in (6c), but allows fresh starts, as in (6d); it also can occur on the right periphery of an utterance, as in (6e):

(6) a. So if somebody, in I dont know, Penge (South London) said I could deliver you 50 votes you would laugh. (Ben Judah, Politico, May 6, 2015)

b. I’ve only got eight more things to get her, I’ve already spent about, I don’t know, sixty quid on her. (BNC, KDA)

c. # So if Bill, I dont know, Mary said . . .

d. Unknown: It’s er, I don’t know, they’re having a ⟨unclear⟩at us ⟨unclear⟩(BNC, KPL)

e. And erm so, of course, the land army came in then and erm 1939, September, I dont know, there were 900 volunteers already. (BNC, KRX).

expr.	EP freq.	B/F	total freq.	% post reperandum	ratio repeat: revision
uh	2864	BF	25391	11.29%	1.92:1
um	376	BF	6482	5.77%	2.36:1

Table 2: FIllers in Switchboard

We found 3289 cases where pause fillers ‘uh’ and ‘um’ were used as an editing phrase (in the post-reparandum position in a repair).

We also found around 23000 instances of OCM of the structure [reparandum, repair] (where no editing terms were inserted), and the ratio of repeats to revision is 3.6:1.

The data we have seen in this section suggests that:

1. In English, the majority of the time, speakers do not use an editing phrase in self-repair. (about 2000 revision OCMs with an editing phrase, and about 5000 without). This pattern is not a linguistic universal. Levelt (1983) shows that in Dutch, self-repairs with EPs make up over half of all self-repairs.

2. A relatively wide range of words can be used as EPs. The semantic meaning of an EP does not always suggest the correction of the reparandum (e.g. ‘you know’ and ‘like’).

3. However, some EPs are more corrective than others. ‘Or’, ‘no’ and ‘excuse me’ can only be used to revise. ‘I mean’ and ‘actually’ are used more often in revisions than in repeats. All of these terms have in their semantic content the element of correction.

4. When an EP is inserted, the OCM is more likely to be revision than repeat (with the exception of ‘yeah’). The highest revision to repeat ratio for EPs is ‘um’ at 2.36:1, which is still considerably lower than the ratio of EP-less repairs (3.6:1).

(7) a. (‘uh’ BL) I think uh I wonder if that worked. (sw_0001_4325)

b. (‘uh’ FL) Well, we’ve always, uh, we’ve always had Oldsmobiles, and, uh, been very, uh, happy with Oldsmobiles. (sw_0191_3427)

c. (‘um’ BL) Sometimes, um, usually the reason I will turn it on is to hear the news. (sw_0249_3728)

d. (‘um’ FL) And it’s been, um, and it’s been pretty rainy (sw_1044_2457)

3 The Distribution of Editing phrases in Rhapsodie

(Pallaud et al., 2013) (note 7 page 23) propose a list of the editing phrases in French, based on their research in the CID corpus (Bertrand et al., 2008), though offer no data concerning distribution:

(8) ah, ben, bof, bon, bref, daccord, eh, enfin, euh, hein, jen sais rien, je sais pas, là, oh, non, ouais, oui, putain, quoi, si tu veux, tu vois, tu sais, voilà.

We used this as a basis for searching the Rhapsodie corpus (Lacheret et al., 2014), which is annotated for OCMs. As (Gerdes et al., 2012) explain: ‘The corpus is made up of 57 samples of spoken French (5 minutes on average) mainly drawn from existing corpora of spoken French for a total of 3 hours and 33 000 words and distributed under a Creative Commons licence at `http://www.projet-rhapsodie.fr`.’[1]

The results are provided in table 3:

expression	post repr	Back/For	total freq	% post repr
Euh	933	B/F	1008	92%
Hein	73	B/F	87	84%
Enfin	60	B/F	81	74%
Oui	42	F	244	17%
Non	20	B	155	13%
Eh	23	?	33	70%,
Ouais	16	F	88	18%
Quoi	13	F	48	27%
Voilà’	13	F	72	18%
Disons	12	B/F	17	70%
Je sais pas	2	F	13	12%

Table 3: Editing phrases and fillers in Rhapsodie

[1]An anonymous reviewer for SemDial 2015 wonders whether differences between the nature of SWB—two person phone conversations between strangers—and Rhapsodie might lead to distributional differences. This is an interesting question which we hope to be able to address in future work using, on the one hand, a larger French corpus we are currently compiling. On the other hand, also using the British National Corpus, which is more balanced than SWB, though involves British English, which involves distinct distributions of OCMs than SWB.

Apart from the filler ‘euh’ and ‘hein’, the commonest EP is ‘enfin’ (lit. ‘finally’), which is both BL and FL:

(9) a. Je connaissais très bien Marc Allégret depuis très longtemps. **Enfin** ma famille le connaissait . (*I knew very well Marc Allégret since a long time. Enfin my family him knew.*)

b. Euh il faut également proposer des méthodes pédagogiques qui — qui visent à intéresser euh donc son auditoire — donc sa classe euh pour parvenir à de très bons résultats // et euh également c’est le fait euh **enfin** de corriger mais également de réaliser des devoirs (*um it is necessary equally to propose methods pedagogical that that target to interest um so his listener so his class um to manage very good results and um equally the fact um enfin to correct but equally to realize the homework*).

Another EP which is both BL and FL is *disons* (lit. say-1pl). *Disons* is not exactly corrective, but it is used to reformulate with more appropriate words. It can precede (cf (10a)) or follow the reformulation (cf (10b)):

(10) a. Nous étions tous les deux d’origine bourgeoise, élevés un peu de la même manière, euh c’est-à-dire **disons** d’une façon un peu britannique dans le comportement, n’est-ce pas (*We were all three of origin bourgeois, students a little in the same manner um that is to say disons in a manner a bit British in the behaviour*)

b. Mais j’ai tendance à — à penser par phrases **disons** — et pas à penser par pensées. (*But I had the tendency to to think by phrases disons by thoughts.*)

There are some variants of *disons*, like *si je puis dire* (lit. *if I could say*) or *on peut dire, on va dire* (lit. *one could say, one will say*). They seem to be only forward looking, never corrective:

(11) a. Est-ce que vous vous êtes fixé un cadre, **si je puis dire**, dans la durée? (*Have you you fixed a framework si je puis dire in the duration*)

b. Est-ce que vous vous êtes fixé un cadre, **on va dire**, dans la durée? (*Have you you fixed a framework on va dire in the duration*)

Similarly for 'voilà' (lit. 'there') in Rhapsodie. There are no examples of 'voilà' with a corrective value.

(12) a. Donc on a beaucoup de mal à maintenir **voilà** une clientèle de quartier (*So one had a lot of trouble to maintain voilà a clientèle in the neighbourhood'*)

b. J'ai pas été acceptée parce qu'il y avait un entretien oral et je le savais pas donc en fait euh **voilà** c'est, c'est trop enfin stupide. (*I was not accepted because there was a conversation oral and I didn't know so in fact um voilà that's that's too enfin stupid.*)

As with its English counterpart, *Je sais pas* seems inappropriate to introduce a correction:

(13) a. je suis pas du tout une acharnée de — de l'actualité littéraire // et je suis euh **je sais pas** quoi épouvantablement éclectique quoi (*I am not at all a devotee of the goings on literary and I am um je sais pas somewhat dreadfully eclectic like.*)

b. # je connaissais très bien Marc Allégret depuis très longtemps. Je sais pas ma famille le connaissait .

Whereas *non* is also like its English counterpart in being solely BL:

(14) a. ah moi je suis une fille extrêmement pudique dans le fond, **non** mais même pas dans le fond, je suis très, très pudique. (*Ah, me I am a girl extremely modest at the bottom, No but even not at the bottom I am very very modest.*)

b. et le ballon est sorti pour euh l'équipe de France là, **non** pour les Argentins (*And the ball is out for um team France there non for the Argentinians.*)

4 Crosslinguistic differences/commonalities between Editing phrases and their implications

The commonest non–filler EPs in Switchboard are, by some distance, 'you know', 'well', and 'I mean'; the commonest French ones in Rhapsodie are 'hein', 'enfin', and 'oui'. Though 'you know and ''hein' correspond roughly—they both have uses to make *check* moves—this is a strong illustration that the distribution of EPs is highly language–specific.

At the same time, there is evidence that certain semantic properties of EPs are preserved under translation:

- (Ginzburg et al., 2014) propose a universal concerning negative EPs—*if NEG is a language's word that can be used as a negation and in cross-turn correction, then NEG can be used as an editing phrase in backward-looking OCMs.* ((Ginzburg et al., 2014), p.10). English 'no' and French 'Non' can indeed both serve as EPs and both are only BL EPs

- Conversely English 'I don't know' and French 'Je sais pas' are both FL EPs

5 Editing phrases: formal analysis

5.1 Background

We rely on the approach to OCMs developed by (Ginzburg et al., 2014) using the dialogue framework KoS (see e.g., (Ginzburg, 2012) for details). The dialogue gameboard represents the public part of a participant's information state. Its structure is given in (15)—the *spkr,addr* fields allow one to track turn ownership, *Facts* represents conversationally shared assumptions, *Pending* and *Moves* represent respectively moves that are in the process of/have been grounded, *QUD* tracks the questions currently under discussion.

(15) DGBType $=_{def}$

$$\begin{bmatrix} \text{spkr: Ind} \\ \text{addr: Ind} \\ \text{utt-time : Time} \\ \text{c-utt : addressing(spkr,addr,utt-time)} \\ \text{Facts : Set(Proposition)} \\ \text{Pending : list(locutionary Proposition)} \\ \text{Moves : list(locutionary Proposition)} \\ \text{QUD : poset(Infostruc)} \end{bmatrix}$$

Metacommunicative interaction is handled in KoS by assuming that in the aftermath of an utterance u it is initially represented in the DGB by means of a *locutionary proposition* individuated by u and a grammatical type T_u associated with u. If T_u fully classifies u, u gets grounded, otherwise clarification interaction ensues regulated by a question inferable from u and T_u. If this interaction is successful, this leads to a new, more detailed (or corrected) representation of either u or T_u.

(Ginzburg et al., 2014) develop their account in KoS of OCMs by extending the account just mentioned of the coherence and realization of clarification requests: as the utterance unfolds incrementally there potentially arise questions about what has happened so far (e.g. *what did the speaker mean with sub-utterance u1*?) or what is still to come (e.g. *what word does the speaker mean to utter after sub-utterance u2*?). These can be accommodated into the context if either uncertainty about the correctness of a sub-utterance arises or the speaker has planning or realizational problems. Thus, the monitoring and update/clarification cycle is modified to happen at the end of each word utterance event, and in case of the need for repair, a repair question gets accommodated into QUD.

5.2 Distinguishing distinct classes of EPs

(Ginzburg et al., 2014) propose to distinguish BL OCMs from FL OCMs essentially in terms of distinct issues whose accommodation into QUD they give rise to:

(16) a. BLDs address the issue of *what did A mean with* u_0

b. FLDs address the issue of *what word should A follow* u_0

We can use this idea to offer a basic characterization of EPs compatible with BL OCMs, FL OCMs, or both. By 'p raising q' we assume a notion of erotetic entailment (Wiśniewski, 2013):

(17) a. An EP E is BL if content(E) raises the issue *what did A mean with* u_0

b. An EP E is FL if content(E) raises the issue *what word should A follow* u_0

Let us consider two rather clear cases for BL and FL EPs, respectively—'No/Non' and 'I don't know/Je sais pas', assuming the following hypothesized contents:

(18) a. 'No' $\mapsto_{content}$ I didn't want to utter u_0.

b. 'I dont know' $\mapsto_{content}$ I don't know what the content of the next utterance should be.

These indeed seem to validate (17). A similar case could be made for 'Or' and 'Voilà':

(19) a. 'Or' $\mapsto_{content}$ There is an alternative to uttering u_0.

b. 'Voilà' $\mapsto_{content}$ *That* is what the content of the next utterance should be.

(17) suggests the difficulty in having an EP which is genuinely BL and FL. Empirically these seem to be the fillers whose meaning has typically been explicated in terms of difficulty to make a subsequent utterance (Clark and FoxTree, 2002).

Now it is somewhat facile to engage in content assignations such as (18) and (19). As we have seen, apart from fillers, at least in English and French there seem to be no purpose built EPs. While a realistic grammar will arguably have lexical entries for uses as EPs, these need to be derived or relatable in general ways to their other uses as connectives. We exemplify here two cases, leaving for future work the formulation of a general 'lexical rule' or similar.

(Ginzburg et al., 2014), following (Cooper and Ginzburg, 2011), proposed that 'No' as an EP is an instance of a bouletic lexical item, exemplified in (20):

(20) a. [A opens freezer to discover smashed beer bottle] A: No! (*I do not want* this *(the beer bottle smashing) to happen*)

b. [Little Billie approaches socket holding nail] Parent: No Billie (*I do not want* this *(Billie putting the nail in the socket) to happen*)

They proposed such a use has the lexical entry in (21):

(21)
$$\begin{bmatrix} \text{PHON} : \texttt{no} \\ \text{CAT.HEAD} = \textit{interjection} : \text{syncat} \\ \text{DGB-PARAMS} = \begin{bmatrix} \text{sit1} : \text{Rec} \\ \text{spkr} : \text{Ind} \end{bmatrix} : \text{RecType} \\ \text{CONT} = \neg\text{Want(spkr,sit1)} : \text{Prop} \end{bmatrix}$$

Its instantiation as an EP can be proposed as (22):

(22)
$$\begin{bmatrix} \text{PHON} : \texttt{no} \\ \text{CAT} = \textit{interjection} : \text{syncat} \\ \text{DGB-PARAMS} : \begin{bmatrix} \text{spkr} : \text{IND} \\ \text{addr} : \text{IND} \\ \text{MaxPending} : \text{LocProp} \\ \text{u0} : \text{LocProp} \\ \text{c1: member(u0,} \\ \text{MaxPending.sit.constits)} \\ \text{rest} : \text{address(spkr,addr,} \\ \text{MaxPending)} \end{bmatrix} \\ \text{CONT} = \neg\text{Want(spkr,u0)} : \text{Prop} \end{bmatrix}$$

By the same token, one could postulate a phrasal description—omitting its phrasal syntactic description—for 'Je sais pas': the speaker does not know p, where $p?$ is the currently maximal element of QUD:[2]

(23)
$$\begin{bmatrix} \text{PHON} : \texttt{je sais pas} \\ \text{CAT.HEAD} = \textit{verbal} : \text{syncat} \\ \text{DGB-PARAMS} : \begin{bmatrix} \text{spkr} : \text{IND} \\ \text{addr} : \text{IND} \\ \text{MaxQUD= p?} : \text{Question} \end{bmatrix} \\ \text{CONT} = \neg\text{Know(spkr,p)} : \text{Prop} \end{bmatrix}$$

Its instantiation as an EP expressing (18b) could be postulated as (24):

(24)
$$\begin{bmatrix} \text{PHON} : \texttt{je sais pas} \\ \text{CAT.HEAD} = \textit{verbal} : \text{syncat} \\ \text{DGB-PARAMS} : \begin{bmatrix} \text{spkr} : \text{IND} \\ \text{addr} : \text{IND} \\ \text{MaxPending} : \text{LocProp} \\ \text{u0} : \text{LocProp} \\ \text{c1: member(u0,} \\ \text{MaxPending.sit.constits)} \\ \text{q} = \\ \lambda x\ \text{MeanNextUtt(spkr,u0,x)} \\ \text{p} : \text{Prop} \\ \text{c1} : \text{Resolve(p,q)} \end{bmatrix} \\ \text{CONT} = \neg\text{Know(spkr,p)} : \text{Prop} \end{bmatrix}$$

[2]We assume some such restriction on p exists for the antecedent of the null propositional object, but this is probably more intricate than simply MaxQUD.

6 Conclusions and Future Work

In this paper we have examined the distribution and basic semantic properties of editing phrases in English and French on the basis of the Switchboard and Rhapsodie corpora, respectively. On the one hand, the data we provide demonstrates that the distribution of EPs is highly language–specific. On the other hand, there is evidence that certain semantic properties of EPs are preserved under translation. This provides support for the view that EPs, and more generally, disfluency / Other Communication Management–containing utterances constitute part of the acquired grammatical competence of English and French speakers. This in contrast, for instance, to the distribution of coughs, hiccoughs, and sneezes of speakers of the same languages, which we hypothesize to be roughly similar across distinct languages.

Future work should involve scaling up the corpus description both within and across languages. We plan to develop a far more detailed and systematic account of the relationship between the EP and non-EP use and to implement this in an incremental grammar.

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References

Jens Allwood, Elisabeth Ahlsn, Johan Lund, and Johanna Sundqvist. 2005. Multimodality in own communication management. In *Proceedings of the second Nordic WOrkshop on Multimodal COmmunication*, Gothenburg.

Roxane Bertrand, Philippe Blache, Robert Espesser, Gaëlle Ferré, Christine Meunier, Béatrice Priego-Valverde, and Stéphane Rauzy. 2008. Le cid-corpus of interactional data-annotation et exploitation multimodale de parole conversationnelle. *Traitement Automatique des Langues*, 49(3):1–30.

Claire Blanche-Benveniste. 1984. La dénomination dans le français parlé: une interprétation pour les répétitions et les hésitations. *Recherches sur le Français Parlé Aix-en-Provence*, (6):109–130.

Herbert Clark and Jean FoxTree. 2002. Using *uh* and *um* in spontaneous speech. *Cognition*, 84(1):73–111.

Robin Cooper and Jonathan Ginzburg. 2011. Negation in dialogue. In *Proceedings of SemDial 2011 (Los Angelogue)*, pages 130–139.

Michel De Fornel and Jean-Marie Marandin. 1996. L'analyse grammaticale des auto-réparations. *Le Gré des Langues*, 10:8–68.

Kim Gerdes, Sylvain Kahane, Anne Lacheret, Arthur Truong, and Paola Pietrandrea. 2012. Intonosyntactic data structures: the rhapsodie treebank of spoken french. In *Proceedings of the Sixth Linguistic Annotation Workshop*, pages 85–94. Association for Computational Linguistics.

Jonathan Ginzburg, Raquel Fernández, and David Schlangen. 2014. Disfluencies as intra-utterance dialogue moves. *Semantics and Pragmatics*, 7(9):1–64.

Jonathan Ginzburg. 2012. *The Interactive Stance: Meaning for conversation*. Oxford University Press, Oxford.

E Matthew Husband. 2015. Self-repairs as right node raising constructions. *Lingua*, 160:20–37.

Anne Lacheret, Sylvain Kahane, Julie Beliao, Anne Dister, Kim Gerdes, Jean-Philippe Goldman, Nicolas Obin, Paola Pietrandrea, Atanas Tchobanov, et al. 2014. Rhapsodie: a prosodic-syntactic treebank for spoken french. In *Language Resources and Evaluation Conference*.

Willem J. Levelt. 1983. Monitoring and self-repair in speech. *Cognition*, 14(4):41–104.

Bertille Pallaud, Stéphane Rauzy, and Philippe Blache. 2013. Auto-interruptions et disfluences en français parlé dans quatre corpus du cid. *TIPA. Travaux interdisciplinaires sur la parole et le langage*, (29).

Elizabeth E. Shriberg. 1994. *Preliminaries to a Theory of Speech Disfluencies*. Ph.D. thesis, University of California at Berkeley, Berkeley, CA.

Andreas Stolcke, Klaus Ries, Noah Coccaro, Elizabeth Shriberg, Rebecca Bates, Daniel Jurafsky, Paul Taylor, Rachel Martin, Carol Van Ess-Dykema, and Marie Meteer. 2000. Dialogue act modeling for automatic tagging and recognition of conversational speech. *Computational linguistics*, 26(3):339–373.

Jean E Fox Tree and Josef C Schrock. 2002. Basic meanings of you know and i mean. *Journal of Pragmatics*, 34(6):727–747.

Andrzej Wiśniewski. 2013. *Questions, Inferences, and Scenarios*. College Publications, London, England.