#### The used and the possible. The use of elicited conversations in the study of Prosody.

Fréderic Laurens, Jean-Marie Marandin, Cedric Patin & Hiyon Yoo

Laboratoire de linguistique formelle (CNRS & Paris Diderot)

### 1. Introduction

Experiments are the primary source of data for Intonational Phonology. If there is consensus on the reliability of elicited data through experiments for detailed phonetic analysis, there is more concern when it comes to Semantics or Pragmatics. Recently, Ito & Speer 2006 have stressed the fact that there are differences in the occurring of prosodic patterns across scripted *vs.* non-scripted speech, and across speech elicited in the lab *vs.* free speech in everyday situations. This paper addresses the methodological issue of whether elicited speech in the lab provides valid evidence for the study of the meaning and the usage of intonational categories.

In this paper, we investigate how replication may be used in the design of experiments. We propose a new eliciting technique based on replication we call Rep Task. Subjects are asked to perform a task, which in fact is the replication of a linguistic event that occurred once in another setting and that has been recorded. We report a pilot experiment (which we call Small Talk) in which subjects are given the script of a dialogue and instructed to behave as if they were the dialogue participants. Thus, the behavior of speakers in an unscripted dialogue (that occurred in a semi-natural setting in the case in point) can be compared to the behavior of speakers replicating it in the setting of an experiment. When we launched Small Talk, our primary concern was the feasibility of the experiment. When we concluded it was feasible, empirical work began to determine what type of arguments could be drawn from the comparison of the attested and the elicited. In the current study, we focus on Prosody and target semantic/pragmatic aspect of Intonation.

In section 2, we briefly review the two main methodologies used in language production experiments for the study of the relationships between intonation and its meaning in context. Then, we give the motivations for Rep Task and describe the particular experiment – Small Talk – we put up to test its feasibility and empirical fruitfulness. Sections 3 and 4 present two case studies in order to illustrate the type of evidence Rep Task may contribute. The former is the use of a particular pitch contour identified by Portes, Bertrand & Espesser 2007a,b under the label "rising of list". The latter is the restriction on pitch range and pitch contour associated with the use of reprise declaratives in the interactive management of topic flow. In section 5, we put the results in a broader perspective by discussing Bresnan's 2007 use of replication in her study of dative alternation in English.

# 2. Replication and experiment

# 2.1 Eliciting techniques

Two types of eliciting techniques are currently used in production experiments:

- Reading/performing lines presented in written form. Subjects are asked to behave as if they were participating in the language game described in the protocol of the experiment;

- Performing a cooperative task through a dialogue. Subjects are asked to cooperate with another subject or an experimenter to achieve a practical goal. Map Tasks are typical of such approaches.

The reading-based tasks are text-based, scripted; they provide for a precise control of the phonetic making of utterances and enable one to target sharp phonological or semantic/pragmatic contrasts. The interactive speech tasks allow for more spontaneous forms of speech, which *prima facie* are more representative of conversational speech.

The reading-based tasks have been challenged essentially on three grounds:

- Reading is different from talking: read prosody is significantly different from spoken prosody;

- Speaker's awareness of the contrast that is tested in the experiment (because they have been instructed about it, or because the repetition of the task make them aware of it) bias their prosodic rendition towards the use of marked forms;

- Finally, pretending is not doing: subjects may project more or less consciously what they think is the appropriate prosody, rather than perform as they perform in real world situations.

The interactive speech tasks have been challenged on two grounds:

- They do not provide for the control of expressions and contrast to be tested: they yield discourses as diverse as recorded discourses in everyday situations;

- Results of their description are hard to interpret when context comes into play, as long as we have no idea of the relations between context and the choice of forms for the expressions.

Hence, the recurrent criticism is that the impact of the experimental conditions on prosody flaws the claims based on elicited speech, because experimental conditions are not real world conditions. Experimental conditions are artificial, real world situations are real and because of that, the only ones to be taken into account for analyzing linguistic usage. Here, there is something that goes undemonstrated. It is taken for granted that what's going on in the lab is completely different from what is going on in real world situations. These are two separate worlds and speakers behave differently in both of them. Surely, experimental conditions impact the prosody of subjects in the lab, but nothing proves that artificial settings yield artificial prosody. The impact of experimental settings has to be investigated and evaluated against the impact of real world situations.

# 2.2 Rep Task

The general idea is to compare the linguistic choices operated by the subjects in experimental settings and those that are operated in naturally occurring situations. To make it operational, we resort to a replication task: subjects are asked to reenact a language game that has been recorded. Hence, we get two renditions of a discourse: one when it occurs naturally and the other when it is replicated in the lab. The first object of the experiment we report here was its own feasibility, which explains why we did not focus on any precise phenomenon in the first place.

# 2.3 Small Talk

We selected a dialogue whose audio and video recording is of good quality and available for precise phonetic investigations. We transcribed it. We asked two subjects to read it as if they

were actually participating in the dialogue. We recorded three renditions of the dialogue: the first one without prior reading, the second and third ones after having discussed freely about the dialogue (the experimenters were not in the room). We then compared the four renditions. A feature of the dialogue is important: it is small talk. Making small talk does not require much situational knowledge; the dialogue constructs its own context as it proceeds. This is a highly favorable feature for making possible the reenacting by subjects who have no access to the original situation at all.

#### More precisely:

– The original dialogue belongs to the CID corpus (Bertrand *et al.* 2008). It lasts about 1 hour; we extracted a 12 minutes' segment, which occurs after a break towards the end of the interaction. In fact, this dialogue is semi-natural as the two original speakers were asked to chat about their life during one hour; they knew their dialogue would become part of a corpus for studying French.<sup>1</sup> The main impact of this setting is that the two speakers could not close the conversation at will: there is a pressure for continuing the conversation which is felt throughout the dialogue.<sup>2</sup>

- The dialogue was edited by removing disfluencies, truncated expressions or overlappings. We added some punctuation marks, when their absence would have impeded readability.

- The two subjects – Parisian, male, postdoc and undergrad in linguistics– were instructed to read as if they were actually participating in the conversation and to be easy about their own possible disfluencies. They were alone in a quiet room (an office) and sat in front of each other. The quality of the recording has been monitored for allowing phonetic analysis. They accommodated easily to the task and experimental setting and produced evidently unselfconscious and fluent speech.

#### 2.4 Outcome

We concluded that the experiment was feasible and potentially fruitful after having carefully checked the renditions and observed that the subjects had made the same choice of prosodic patterns for a great number of turns or parts of turn across renditions. Hence, speakers in the lab in an artificial setting may replicate choices of speakers in another setting. We will come back to the significance of the replication of linguistic choices in section 5, when we discuss Bresnan's 2007 approach to dative alternation.

We have selected two items to evaluate the fruitfulness of the experiment:

- A contour that Portes, Bertrand & Espesser (PBE henceforth) identified under the label: rising of list (RL). Here, we do not address the phonetic or phonological characterization of the contour, although the experiment does provide the material to do so. We focus on its semantics as it is striking that such a contour – which is never compulsory and rare enough to have escaped notice until PBE's paper – is replicated in the contexts where it was used by the original speakers in the first place.

- A type of turn instrumental in the interactional management of topic flow. The turn is a declarative clause whose content is not informative (i. e. it does not add to the content of the Common Ground). It operates as the middle turn in a sequence of three, which enables a speaker to interactionally display her orientation towards the elaboration of a topic by the other DP. Here, we focus on the prosody associated with such a turn.

<sup>&</sup>lt;sup>1</sup> This did not prevent them from discussing quite intimate events and feelings. Obviously, we would have preferred a dialogue in a natural setting, but for obvious ethical reasons, this is almost impossible to obtain.

 $<sup>^{2}</sup>$  By the way, this makes this dialogue quite relevant for studying the interactive management of discourse topics.

# 3. Rising of list (RL)

PBE describe the rising of list (RL) as a kind of rising pattern that is perceptually distinct from the Rising of Major Continuation (RMC). It is also perceptually distinct from other rising patterns, such as the rising nuclear contour described in Beyssade *et al.* 2007. We extend PBE's formal characterization with a semantic characterization. The two participants of Small Talk replicated RLs in a significantly high number of cases, which drew our attention in the first place. The analysis of the contexts triggering the replication of RL enables us to characterize the factors that prime the production of RL in the replications. We show that these factors support the characterization of the semantic contribution of RL we propose.

# 3.1 Construction of the data

First, we annotated the data collected via Small Talk. We annotated the original dialogue for RLs using our intuition. Then, we checked whether the participants replicated RL where they occurred in the original. Finally, we searched the three replications for instances of RL in utterances where no RL had been produced in the original.

Annotation has been performed by the four authors, and then compared with the annotation of one author of PBE. The annotators used a four-value scale: 4 was to be assigned to clear instances of RL and 1 to clear instances of not being a RL. The two intermediary values were to be assigned to less clear instances or to register a lesser degree of confidence: 3 was to be assigned to less clear instances of being a RL, and 2 to less clear instances of not being a RL. Then, scores 3 and 4 were merged, as well as 1 and 2. In table 1, we note "+" the fact of being an instance of RL, "-" the fact of not being an instance of RL and finally, "?" the cases where the annotators did not reach agreement. The numbers in the column refer to the turns showing at least one instance of RL. They are listed in Annex I.

Number of the turn	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Rendition																	
of the dialogue																	
Original	+	+	I	?	+	1	+	+	+	+	+	+	+	+	+	+	-
Replication 1	I	I	?	+	I	+	+	+	I	1	1	?	-	+	+	-	?
Replication 2	I	I	I	?	I	+	+	I	I	1	+	?	-	+	+	+	+
Replication 3	+	I	+	I	-	+	+	+	-	-	+	+	1	+	+	+	+

Table 1. Instances of RL in the renditions

# 3.2 Characteristics of RL

# 3.2.1 Distribution

RLs occur on the right edge of Intermediate Phrases or Intonation Phrases. They correspond to constituents of any syntactic category: clause and below the clause. They are quite frequent on conjuncts in coordinated structures (both syndetic and asyndetic). PBE observed many instances in reported discourse.

#### 3.2.2 Prosodic properties

The phenomenology of RLs is characterized by four features. First, the syllable that anchors the peak of F0 shows an important lengthening. This lengthening turned out to be the most salient feature used by the annotators. Secondly, the pitch tends to remain constant during the realization of the lengthened syllable, resulting in plateau patterns most of the time (see Fig.1 below). Thirdly, the pitch is situated in the mid or upper range or the speaker's register. Fourth, the vocal quality remains constant and corresponds to the quality used in normal speech by the speaker (usually modal voice). This last feature distinguishes RLs from other patterns involving lengthening, in particular lengthenings accompanying disfluencies triggered by dis-planning or self-repair, which are often characterized by a shift to creaky voice. The overall contour is either flat or slightly rising (Fig. 1 and 2 below).<sup>3</sup>

	Properties of the nuclear syllable
Duration	lengthened
Pitch register	mid ~ high
Pitch variation	low ~ none (plateau)
Vocal register	stable (modal voice)





PBE show that the cluster of the 4 properties that makes RLs perceptually distinct from risings of Major Continuation, is statistically correlated to a value of a slope. The slope ratio is defined in (1), where ln is the natural logarithm function, H(Hz) the highest pitch value (in Hz) at the very end of the RL, L(Hz) the lowest pitch value (in Hz) at the very beginning of the RL and LH the total duration of the RL (in ms).

(1) Slope Ratio Formula:

$$\ln\!\left(\frac{H(Hz)/L(Hz)}{LH(ms)}\right)$$

<sup>&</sup>lt;sup>3</sup> Note that the authors often disagreed about contours showing lengthening, modal voice, but a perceptually rising pitch.

PBE demonstrate that patterns, perceptually categorized as instances of RL, are characterized by a lower slope ratio than those classified as instances of Rising of Major Continuation.<sup>4</sup> Notice that the value of (1) crucially depends on the duration of the last syllable, which accounts for the salience of the feature in the recognition of the contour.

### 3.2.3 Semantic import

The Rising of List signals that a linguistic expression E stands for a description E' that is more general and/or abstract than E. For example in (2), *un chat* ('a cat') and *un chien* ('a dog') stand for a more general description such as *un animal domestique* ('a pet'). The intended denotation is introduced extensionally (i. e. through instances), rather than intensionally (i.e. through properties). From a rhetoric perspective, the semantic of RL is reminiscent of that of synecdoches where an expression referring to a concrete object stands for an expression referring to an abstract one.

(2) a. Je cherche une boutique où on peut acheter [un chat]<sup>RL</sup> [un chien]<sup>RL</sup>. *I'm looking for a shop where you can buy a cat, a dog*b. Je cherche une boutique où on peut acheter [un animal domestique]. *I'm looking for a shop where you can buy a pet*

RL is not restricted to individual denotations: it also operates on any type of denotation such as that of clauses. For example, in (3.a) below, "elle envoie des mails, elle laisse des messages" describe situations that are concrete manifestations of her inquisitive behavior. In the same way, in (3b), the interrogatives are examples of the sort of questions she keeps asking.

(3) a. Elle n'arrête pas de le harceler de questions. Elle envoie des mails, elle laisse des messages.

She keeps asking him questions. She sends emails, she leaves messages

b. Elle n'arrête pas de le harceler de questions au téléphone. Où tu vas? Avec qui tu es? *She keeps asking him questions on the phone. Where do you go? Who are you with?* 

Expressions bearing RL, and coordinations thereof, are never interpreted as exhaustive, i. e. being the complete set of valid expressions that stand for the intended description. In (2), cats and dogs exemplify the sorts of animals for sale in the shop the speaker refers to. In (3), the situations or the questions do not exhaust the description of her behavior. In other words, the denotations of conjuncts in coordinations tend to not making up a plural entity: they stand for several formulations of the same content. This explains why disjunctive coordinations with RLs do not make good alternative questions. In (4) below, « on le fait chez toi » and « chez moi » (i.e. « have dinner at your place, at my place ») make up a sample of possible answers, rather than the alternatives among which the addressee has to choose.

Qu'est-ce que tu décides ? [On le fait chez toi]<sup>RL</sup> [ou chez moi]<sup>RL</sup> ?
 What do you decide? Do we do it at you place, do we do it at my place?

<sup>&</sup>lt;sup>4</sup> The two populations constituted by instances of RL and instances of Rising of Major Continuation show different slope ration values. The probability that the differences between the slope ratio values of the two population is due to chance is significantly very low (p<1.e-16). (See Portes *et al.* 2007a)

Moreover, we have observed in corpus –which is corroborated by the four authors' intuition – that the semantic import of RL interferes with the illocutionary value, when it operates on root clauses (RC). When used with interrogative or imperative RCs, the clauses are not interpreted as questions or commands to the addressee, but rather as instances of question or command, thus as quoted questions or commands. This was illustrated in (3) above or (5) below.

(5) J'ai quelques questions pour toi. [Où je dois aller]<sup>RL</sup> [A qui je dois parler]<sup>RL</sup>. *I have a few questions for you. Where do I need to go. Who do I need to speak to.* 

In contexts where an exhaustive answer is possible, as in (6), using a RL implicates that, although the answer resolves the question, there are other reasons as well that could motivate Loc2 not to come. Note though that RLs are not strongly implicative in Büring's 1997 sense: they do not call for elaborating on the other instances.

(6)	Loc1: Pourquoi tu viens pas?	A- How come you don't come?
	Loc2: [Parce qu'il pleut] <sup>RL</sup>	B-Because it is raining.

Because of its semantic contribution, we expect RL to be most natural in segments of discourse in which speakers elaborate upon a content they have introduced explicitly or they are seeking to introduce. In terms of Discourse Relation, we expect RLs to be most natural in clauses entertaining an Elaboration relation with a preceding context. This is illustrated in the forged examples (3) and (5) above. Thus, the conjecture to be checked is that the contexts triggering the highest replication rate are contexts that involve an Elaboration relation holding between an expression having a general or abstract content and another with a more concrete one.

# 3.3 Priming factors for the production of RLs in replications

In the four renditions of the dialogue, RLs have been observed in 17 segments. Among them, 11 are conjuncts: 5 belong to a syndetic coordination and 6 to an asyndetic coordination (i. e. juxtapositions). Among the 5 other segments, 2 are instances of reported speech. This is summarized in table 3 below.

	RL in the	RL only in a
	original	replication
	dialogue	
Conjunct in syndetic coordination	4 (#1, 2, 11, 12)	1 (#4)
Conjunct in asyndetic coordination	4 (#7, 8, 9, 16)	2 (#6, 17)
Reported speech	2 (#14, 15)	
Others	3 (#5, 10, 13)	1 (#3)

Table 3. Distribution of RL across the renditions

As shown in Table 4 below, two types of context favor the production of RLs in the replication task: asyndetic coordination and reported speech.

	Number of repli-	never	once	twice	thrice
	cations				
Context					

Asyndetic coordination	1 (# 9)		3 (# 8, 16, 17)	2 (# 6, 7)
Reported speech				2 (# 14, 15)
Syndetic coordination	1 (# 2)	3 (# 1, 4, 12)	1 (# 11)	
Others	3 (# 5, 10, 13)	1 (# 3)		

The strongest factor that triggers the replication of RL is the shift from a general or abstract description to a more concrete one. Turns (6-7) or (14) are prototypical cases. For example in (14) – repeated in (7) below –, G states that the choice of the first name of the mother or the father by the grown-up child may cause a shock to the parents. M gives a more precise content to the potential shock by freely quoting a question the parents might ask *why he did not choose my [name]*?

 <G> et puis tu vois pour les parents ça peut être un choc si tu veux. *And you see to the parents it may come as a shock you know.* <M> Ouais ouais c'est ça. Pourquoi il a pas pris le mien. *Yeah that's it. Why didn't he choose mine?*

The distribution is summarized in Table 5 below.<sup>5</sup>

Number of replications	never	once	twice	thrice
Context				
Preceding segment introduces an abstract	2 (# 9, 13)	1 (# 1, 3,	3 (# 8, 16,	4 (# 6, 7, 14,
description		4)	17)	15)
No abstract description in the preceding	3 (# 2, 5,	3 (#12)	1 (# 11)	
segment	10)			

Table 5. Replication rate with respect to left context.

# 3.4 Conclusion

The rising of list is a prosodic pattern that has not received much attention so far, even though it is consistently recognized by Speakers. We propose to semantically characterize it as a kind of synecdoche operator on the basis of our interpretation of forged contrasts (some of them are reproduced in section 3.2.3 above).

Rep Task brings empirical support to several claims. First, the fact that RLs are replicated and that the replicated occurrences are recognized as instances of the same contour by several annotators, strongly suggests that RL belongs to the repertory of contours shared by the speakers of French. Secondly, the fact that it has been replicated more often when a shift from the general to the more concrete occurs is a strong support for the semantic characterization we propose. Thirdly, speakers in the lab associate the usage of RL with a type of context as speakers in everyday situations do: we will come back to this in section 5 below. Finally, speakers in the lab behave as speakers in naturally occurring situations. This makes discourses elicited in the lab appropriate material to study the semantics/pragmatics of constructions,

<sup>&</sup>lt;sup>5</sup> Because of space limitations, we leave aside the analysis of the instances added by the subjects during Small Talk: indeed, they appear in discourse configurations that resemble those in which RLs occur in the original.

especially when one can compare the elicited discourse with natural discourses, which Rep Task specifically enables one to do.

Rep Task has another advantage to study RL that we have not developed here. Indeed, it yields good material to investigate its phonetic implementation in a detailed way. In addition to the 13 occurrences in the original dialogue, we have 24 more in the replications. They show the whole gamut of realizations going from the prototypical – in contexts where it has been replicated several times and recognized as such by all annotators – to the least regular – in contexts where it appears sporadically and where annotators disagree.

# 4. Topic reprise declaratives (TRD)

In the conversation under study, the participants are making small talk. They go from one topic to another more or less smoothly: from fathers' attending child delivery, to the preparation of the room for the new-born, the choice of first and last names, anecdotes about the length of names, etc. As conversation analysts have observed, topic shifts are either disjunctive (a topic is introduced as separated from prior topics) or stepwise: the current topic emerges from a previous topic (Jefferson 1984, Button & Casey 1984, 1985). The conversation shows instances of both ways of managing the topic flow. We focus here on a type of stepwise technique for topic shift/pursuit. It crucially involves a turn consisting of a declarative whose content is a reprise of the content of the previous turn. We will call them topic reprise declaratives (TRD).

#### 4.1 Characteristics

# 4.1.1 Content

Reprise declaratives are declaratives whose content is the same as that of the preceding turn.

(8)	<m> Nan. J'ai pas voulu.</m>	No, I didn't want it
$\rightarrow$	<g> T'as pas voulu</g>	You didn't want it

We extend the definition to declaratives whose content is a reformulation of that of the previous turn involving an entailment (9) or an implicature (10).

- (9) <G> On a fait les cours de préparation à l'accouchement là We took the training sessions for the delivery
   → <M> Ouais. Tu y es allé, toi ? You attended, you ?
- <G> L'appréhension s'est transformée en... Tu vois, j'arrêtais pas de bailler. *The apprehension turned into ...You see, I couldn't help yawning* →<M> Ouais, ça t'a assommé, quoi *It knocked you out*

The implicature may involve more or less contextual information. For example, in (11) below, Speaker M infers the whole content of G's turn: the coats of paint are overlaid over layers of paper and should be removed (in order to paint the wall).

(11) <G> En fait c'est long parce que tu dois... Tu sais C'était tapissé, peint alors c'est l'enfer quoi. Right, it takes time, because you have to... You know, it was papered, painted, so it was like hell
 → <M> Ah ouais t'enlèves les couches, putain Yeah, you remove the bloody coats

There are 9 reprise declaratives in the conversation: 3 show the same content as the previous turn (e. g. (8)), 2 are based on entailment (e. g. (9)) and, 4 are based on implicature (e. g. (10), (11)). The feature shared by all three sorts is that they do not add new information to the Common Ground. Thus, from an information point of view, they are redundant. Being informationally redundant does not imply that they are not instrumental in the making of the dialogue though. To uncover their relevance, we need to describe them in their dialogical environment.

#### 4.1.2 Sequential placement and role

The Topic Reprise Declaratives take place in a sequence that involves three turns.<sup>6</sup> The first turn is a news-report turn: a dialogue participant, say A, tells some news. TRDs occur as the second turn: they reprise part or whole content of the news conveyed in turn 1. By using a TRD, another participant, say B, turns the content making up her turn into topicalizable material. TRDs operate in two manners: they upgrade the news-worthiness of the content from B's perspective<sup>7</sup> and displays B's orientation towards more elaboration upon the content. In turn 3, A has a choice: either she takes up the topicalizable material and elaborate it (topicalizing turn) or she curtails continuation of the topic. Both cases are illustrated in the conversation: in (9)-(11), G talks further on-topic, while in (8), repeated in (12) below, M didn't seize the opportunity of elaborating on his refusal to attend child delivery. Only the use of the explicit topic initial elicitor *c'était quoi?* (TIE, Button & Casey 1984) prevents the conversation from coming to an end.

(12) <G> Tu avais assisté à l'accouchement, toi, de...
<M> Nan. J'ai pas voulu
→ TRD <G> Tu as pas voulu
<M> Nan nan
[-]
→ TIE <G> T'avais eu... C'était quoi T'avais

TRDs are different from acknowledgment turns, which merely display the speaker's acceptation of the previous turn, or continuation turns which display a positive orientation to topic pursuit as *ah ouais* in (13) for example.

(13) <M> Ouais mais moi je pensais que ça durait je sais pas au moins 20 minutes quoi, une césarienne. C'est super rapide.

Yeah I thought it last I don't know at least 20 minutes a Ceasarean delivery. It's very quick

 $\rightarrow$  <G> Ah ouais *Ah yeah* 

 $<sup>^{6}</sup>$  In the literature, only the use of reprise declaratives to signal a problem – either in the Grounding process (in identifying a reference or an understanding problem) or in the uptake of a previous declarative turn (RDs expressing surprise, indignation, etc.) – has been considered so far.

<sup>&</sup>lt;sup>7</sup> Which is correlated with the use of prefixes such as *ah*, *ah* bon (...).

<M> Parce que moi quand elle est rentrée, je me suis dit bon moi je vais fumer une clope, quoi. Et en fait, il est venu me chercher, quoi.

Because me when she entered I thought well me I'm gonna smoke a cig. But he came to fetch me

By using a TRD, the recipient of a news report transforms a piece of news into a potential topic for further talk; s/he does so interactionally and mutually. S/he displays her active participation in the generation of a topic by giving the news-teller ground to talk to the topic she has extracted from the initial news-report. We stress this last aspect as it may be a crucial factor for the prosodic realization: the speaker provides for her interlocutor to talk further on the topic she shows interest in.

#### 4.2 Prosody of TRDs

#### 4.2.1 In the original conversation

TRDs are associated with two prosodic patterns (prosody for short below) involving pitch range and pitch contour.

- P1: recto tono until the last syllable which is slightly rising or falling in an overall compressed register. TRDs in P1 are produced with overlapping, interruption or truncation of the very end of the turn. P1 is illustrated in Fig. 4 (see also Fig. 9A below).



- P2. : low plateau until the last syllable which is rising (more or less sharply), the span of the register is the normal span of the speaker (Fig. 5, 6).



#### 4.2.2 In the replications

We obtained 24 replications  $(8 \times 3)$  after we have excluded a TRD we mistakenly transcribed as a relative clause in the script given to the subjects of Small Talk.

On the whole, the prosodic realization of TRDs is as restricted as in the original conversation. The distribution is as follows:

- 11 show the P2 realization.

- 7 show the same gestalt as P1. Recto tono, but the register is less compressed than in the original. It is not accompanied by overlapping phenomena, which is certainly due to the fact that subjects were given a script in which all overlappings had been edited out. The realization is illustrated in Fig. 7 below.



Fig. 7. Prosody P1 in replications

In addition to P1 and P2, five replications show a prosody that is absent from the original. It can be described as P3.

- P3: high plateau until the last syllable which is falling. P3 is illustrated in Fig 8 (see also Fig. 9C below).



Fig. 8. Prosody P3 in replications only

Finally, one replication shows a rising-falling contour. The complete distribution of prosodies is given in Annex III.

#### 4.2.3 Description

P2 has a questioning feel about it. Indeed, it has been described in relation with questioning moves, in particular confirmation questions. In the original, all TRDs with P2 trigger an answering token (*nan, ouais,* ..) in the next turn. To our knowledge, P1 and P3 have not been much discussed in the literature. P3 as an attitudinal feel about it: it conveys some sort of surprise, unexpectedness about the content conveyed in the previous turn. Finally, P1 bears some resemblance to the prosody observed with postfocal sequences in declaratives (traditionally, referred to as 'intonation d'appendice' in the literature on French). It shows pitch range compression, base-line in the low part of the speaker's register, de-accentuation without de-phrasing and finally falling or rising pitch movement at the very end of the utterance.

To the exception of TRD1 and TRD3 – always associated to P2– and TRD8 –always associated to P1in the original as well as in the three replications–, the subjects chose among the three patterns to realize the TRDs. TRD7 (repeated in (14)) is prototypical, as it has been associated with all three prosodies.

(14) <G> donc t'avais si tu veux le samedi pour savoir qui jouait donc t'avais l'entraînement la semaine et le samedi dans le journal dans la Provence enfin à l'époque c'était Bormes Matin à Bormes-Mimosa tu avais la convocation des joueur, tu vois. Donc sont convoqués à telle heure pour jouer contre telle équipe

- $\rightarrow$  <M> Ah ça paraissait dans le journal]
- >G> [Ca paraissait dans le journal [
- <G> [ Tu savais quand tu. Non, toi tu le savais d'avance ouais
- <G> Non tu savais pas



The subjects have not replicated the original prosody of each TRD, but they have chosen one in a restricted repertory. In other words, TRDs are not rigidly associated with one prosody, but they seem to be associated with one restricted set of prosodies. The intuition we have is that this is not due to chance or merely dependant on the number of replications. Indeed, the restriction we observe –and the subjects have observed in their replicating– corresponds to an essential feature of TRDs.

### 4.3 Hypothesis and further work

We conclude that TRDs are associated with a restricted set of prosodies. As we saw, the speaker extracts some topicalizable content from the previous turn and gives the addressee the ground to topicalize it effectively or not. In other words, he paves the way for the addressee to address it in the coming turn(s). The speaker is not the source of the content: crucially, it is the addressee and the addressee is the one who is endowed with the role of elaborating the topic. We may speculate that this dialogical role constrains the choice of prosody: the speaker should not present herself as the source of the content. This may explain why the falling contour regularly associated with asserting moves is not appropriate in the stead of P1. Likewise, following Beyssade *et al.* 2007, a questioning contour with a rise on the penultimate and a final fall – although frequent with confirmation questions – is not appropriate in the stead of P2. Indeed, such a contour presents the speaker as the source of the content. This will be the object of further work.

#### 5. Discussion

Bresnan 2007 proposes that Speakers' linguistic knowledge includes the conditions of usage of constructions making up their language. The claim is grounded on results obtained through a method which is close to Rep Task. In two ways:

- Speakers' choices in the spontaneous use of speech in natural settings are compared to those made in an artificial controlled setting;

- The comparison bears on the sameness of choices in a paradigm of constructions given a context. Although participants in Bresnan's experiments do not actually produce utterances, they score sentences and their scores reflect the choices Speakers make in the same context. Her case study is the dative alternation in English, illustrated in (15).

(15) a. Mary gave a toy to Paulb. Mary gave Paul a toy

The choice between (15a) and (15b) results from multiple formal, semantic or contextual constraints. Eventually, she proposes a probabilistic model of the choices. Then, she puts up an experimental setting: given an attested utterance showing one of the constructions in (15), an alternative paraphrase was constructed that showed the other, and both were presented to the subjects in the original dialogue context, which was edited for readability. They were asked to rate the naturalness of the two alternatives in the given context. Results are clear: subjects made ratings of alternative dative constructions in contexts that correspond to the corpus probabilities. This suggests that speakers' implicit knowledge of the dative alternation in context reflects the usage probabilities of the construction. In a nutshell, speakers when they speak emulate other speakers: in order to emulate, they have to know the fine-grained conditions of usage of the constructions.

Our experiment suggests the same conclusion for constructions that belong to Intonation. It does so in a coarse way, as we do not have a formal model of usage of the two constructions under study. Most probably, we will never have one. Nevertheless, the observation remains. Speakers recognize the contextual cues that motivate the use of the Rising of List as they recognize those that motivate the use of one expression of the Dative over the other. In the same way, they recognize the conversational role of turns and know how to adapt the

intonational rendition to such roles. In the first case, it provides support to the semantic analysis we propose. In the latter, it gives support to the idea that TRDs may be analyzed as high-level constructions associating a clause type, a constraint on the semantic content and a constraint on the intonation.

### 6. Conclusion

We have presented a new technique of eliciting data conceived as a replication task.<sup>8</sup> The pilot experiment "Small Talk" suggests two conclusions. The first one is methodological: speakers' choices in the lab provide reliable data when they are compared to the same choices in other settings. The second one is foundational: speakers' knowledge of constructions includes usage conditions.

#### References

Beyssade Claire & Jean-Marie Marandin, 2007. French Intonation and Attitude Attribution, Proceedings of the 2004 Texas Linguistics Society Conference: Issues at the Semantics-Pragmatics Interface, ed. by Pascal Denis, Eric McCready, Alexis Palmer, and Brian Reese, pp. 1-12.

Button Graham & Neil Casey, 1984. Generating topic: the use of topic initial elicitors. [Atkinson M. & John Heritage, eds] Structures of social actions, pp. 167-190.

Button Graham & Neil Casey, 1985, Topic nomination and topic pursuit, Human Studies 8:3 pp. 3-55.

Bertrand Roxane *et al.*, 2008. Le CID - Corpus of Interactional Data - Annotation et Exploitation Multimodale de Parole Conversationnelle. TAL 49-3, pp. 1-30.

Bresnan Joan, 2007. Is syntactic knowledge probabilistic? Experiments with the English dative alternation. [Sam Featherston and Wolfgang Sternefeld, eds] Roots: Linguistics in search of its evidential base, Series: Studies in Generative Grammar. Berlin and New York: Mouton de Gruyter, pp. 75–96.

Büring Daneil, 1997. The meaning of topic and focus. London, New York : Routledge.

Jefferson G. 1984. On stepwise transition from talk about a trouble to inappropriately nextpositioned matters. [Atkinson M. & John Heritage, eds] Structures of social actions. Cambridge: Cambridge University Press, pp.191-222.

Ito Kiwako & Shari R. Speer, 2006, Using interactive tasks to elicit natural dialogue. [Sudhoff Stefan et al., eds] Methods in empirical prosdy research. Berlin: W. de Gruyter, pp.229-258.

Portes Cristel, Roxane Bertrand & Robert Espesser, 2007a. Contribution to a grammar of intonation in French. Form and function of three rising patterns. Hand-out IDP 07. Available at http://pro-gram.linguist.univ-paris-diderot.fr/recherche.php?nav=structure.

Portes Cristel, Roxane Bertrand & Robert Espesser, 2007b. Contribution to a grammar of intonation in French. Form and function of three rising patterns in French, Nouveaux cahiers de linguistique française 28, pp. 155-162.

Selting M. 2007. Lists as embedded structures and the prosody of list construction as an interactional resource. Journal of Pragmatics Journal of Pragmatics 39-3, pp. 483-526

<sup>&</sup>lt;sup>8</sup> It is certainly limited in terms of genre of discourse/monologue: it requires that the making of conversation does not require much contextual information or involves activities.

Annex I. Turns showing RL NB.: The lengthened syllable is underlined for convenience. The phrase affected by the contour is between angle brackets.

DI	
RL1	<1> C'est vrai ?
	<2> Si tout va bien je vais essayé de le faire mais j'en sais rien (si je vais pas tourner
	de <u>l'œil</u> ) ou j'en sais rien ouais tu vois ?
RL2	Si tout va bien je vais essayé de le faire mais j'en sais rien si je vais pas tourner
	de l'œil ou j'en sais rien ouais tu vois ?
	<1> Ouais. (Ou ce que tu vas garder comme <u>image</u> ).
RL3	<m> Ouais. Ou ce que tu vas garder comme image.</m>
	G> Ouais voilà. Parce que j'ai vu. (On a fait les cours de préparation à
	l'accouche <u>ment</u> ).
RL4-5	G> Ouais. Tu fais autre chose et tu passes à autre chose et du coup t'es pas. On
	verra.
	<m> Moi, c'est un peu tout. C'est pas tellement le sang tout ça. Enfin ouais si.</m>
	Disons que ça me disait rien du tout, quoi. Mais c'est aussi le côté hystérique, un peu
	de Enfin c'est normal. Elle est souffre et machin mais j'ai du mal avec (l'hysté <u>rie</u> )
	ou les trucs comme ça et ça fait que je me suis dit c'est plutôt quelque chose qui va
	me gonfler quoi, (m'énerver) enfin pas m'énerver mais je sais pas comment dire
	quoi. Et du coup, bon tu vois si tu prends aucun plaisir à ça, je pense c'est. En
	même temps, je pense Myriam voulais quoi. Donc la césarienne, c'était nickel. Pas
	de problème.
RL6-7	<g> Ah ouais.</g>
	<m> Et là, c'est bonnard quoi quand tu l'as. T'as une meuf (qui le prend), (qui lui</m>
	lave le $\underline{nez}$
RL8-9	<m> Ah ouais ?</m>
	<g> Tu sais j'ai toujours pas fini ouais. En fait c'est long parce que tu dois Tu</g>
	sais C'était (tapi <u>ssé</u> ), ( <u>peint</u> ) alors c'est l'enfer quoi.
RL10	<m> Ouais</m>
	<g> Tu vois là (tout à la ra<u>clette</u>).</g>
RL11-	<g> Il faut que t'en prenne qu'un. Alors voilà justement</g>
12	$\langle M \rangle$ Je sais pas si il peut choisir (lequel des <u>deux</u> ) (ou si il prend le pre <u>mier</u> ).
RL13	G> Ben justement. Moi j'ai lu un truc sur ça. Ils disaient que ça pouvait avoir des
	conséquences parce que à la limite pour le moment bon c'est comme ça tu as le nom
	du père basta et tu choisis pas c'est fait, tu vois
	<M $>$ Ouais. Là c'est (préfé <u>rence</u> ).
RL14	<g> et puis tu vois pour les parents ça peut être un choc si tu veux.</g>
	M> Ouais ouais c'est ça. (Pourquoi il a pas pris le mien).
RL15	<m> Ouais ouais c'est ça. Pourquoi il a pas pris le mien.</m>
	G> Ben ouais alors ça crée peut-être des merdes. Bon enfin, j'en sais rien. Je sais
	pas encore. Et puis non par contre c'est vrai Isabelle me disait par exemple « Tain
	t'emmerde pas avec deux noms ça va être. (tu vas voir après quand tu vas avoir les
	pa <u>piers</u> ).
RL16-	G> Ouais je me rappelle ouais.
17	$$ où chaque fois tu devais bien marquer ton nom $\langle$ un centi <u>mètre</u> $\rangle$ $\langle$ un milli <u>mètre</u> $\rangle$ .
1/	in our enaque reis ta devais eren marquer ten nom (un conti <u>metre</u> ) (un min <u>metre</u> ).

Annex II. The 8 TRDs in their environments in the original

TRD1	<m> Nan. J'ai pas voulu.</m>
INDI	$\rightarrow$ <g> T'as pas voulu</g>
	<pre></pre> <pre>&gt; 1 as pas vould </pre> <
TRD2	<pre></pre>
I KD2	· ·
	<m> [Bah en plus c'était une césarienne donc euh</m>
	$\rightarrow$ <g> Ah bon, elle a accouché avec une césarienne, Myriam ]</g>
	<m> [Ouais</m>
TRD3	<g> Ah d'accord. Alors c'est clair <g> [] Parce que (-) j'ai vu. T'sais On a fait les cours de préparation à</g></g>
TKD5	1'accouchement là
	$\rightarrow$ <m> Ouais. Tu y es allé, toi ? <g> Ouais. J'y suis allé. (-) Et c'est vrai que tu vois les explications de la</g></m>
	sage-femme au moment de l'accouchement, je me sentais pas très très bien, tu
	vois?
TRD4	Solution of the second seco
TKD4	Tu sais C'était tapissé, peint alors [c'est l'enfer quoi
	$\rightarrow$ <m> [Ah ouais t'enlèves les couches [putain</m>
	$\langle G \rangle$ [J'ai mis un mois quoi. Enfin bon c'est un mois en faisant que le week-
	end, si tu veux.
	<m> Ouais</m>
TRD5	Style Otdals <g> Tu vois là tout à la raclette</g>
THE S	$\rightarrow$ <m> C'était peint sur la tapisserie, truc comme ça</m>
	Solution of the control of the tapisseries, and control of the
	bien sur de la tapisserie, tu vois ? Ca s'enlève comme rien.
TRD6	Stell sur de la appisserie, la vois : eu s'entre comme rien. <m> Jean Jackie donc il s'appelle Paul Maé Jackie Jean</m>
1120	$\rightarrow$ <g> Ah ouais tu peux avoir 4 [ euh</g>
	<m> [ Tu peux en avoir 50 [si tu veux.</m>
	<pre><g> [ah d'accord</g></pre>
TRD7	<g> donc t'avais si tu veux le samedi pour savoir qui jouait donc t'avais</g>
(Journal)	l'entraînement la semaine et le samedi dans le journal dans la Provence enfin à
	l'époque c'était Bormes Matin à Borne Mimosa tu avais la convocation des
	joueur, tu vois. Donc sont convoqués à tel heure pour jouer contre telle équipe
	$\rightarrow$ (M> A ça paraissait dans le journal]
	>G> [Ca paraissait dans le journal ]
	<g> [ Tu savais quand tu. Non, toi tu le savais d'avance ouais</g>
	<g> Non tu savais pas</g>
TRD8	() <g> Bon. C'est marrant parce l'appréhension s'est transformée en Tu vois,</g>
	j'arrêtais pas de bailler.
	→ <m> Ouais, ça t'a] [t'a assommé] quoi.</m>
	<g> [Tain]</g>
	<m> [ça me</m>
	<m> J'ai failli sortir à un moment donné. Mais je crois que tous les mecs je</m>
	me suis dit le jour de l'accouchement ça va donner

Annex III. Prosodies of TRDs Code for the takes: TRD-O: original. TRD-1 (first take without prior reading), TRD-2 and TRD-3 (2<sup>nd</sup> and 3<sup>rd</sup> take after discussion).

TRD	Take	P1	P2	P3	Other
TRD1	TRD1-O		+		
	TRD1-1			+	
	TRD1-2			+	
	TRD1-3			?+	
TRD2	TRD2-O		+		
	TRD2-1		+		
	RD2-2	+			
	RD2-3	+			
TRD3	RD3-O		+		
	RD3-1		+		
	RD3-2		+		
	RD3-3		+		
TRD4	RD4-O	+			
	couches				
	RD4-1	+			
	RD4-2	+			
	RD4-3		+		
TRD5	RD5-O	+			
	RD5-1		+		
	RD5-2		+		
	RD5-3		+		
TRD6	RD6-O		+		
	RD6-1		+		
	RD6-2			??+	
	RD6-3			??+	
TRD7	RD7-O	+			
	RD7-1			+	
	RD7-2		+		
	RD7-3			+	
TRD8	TRD8-O	+			
	TRD8-1	+			
	TRD8-2	+			
	TRD8-3				+