

One More Step and You'll get Pseudo-Imperatives Right

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Abstract

We consider *pseudo-imperatives* like *Come near (and) I'll show you*, which have a conditional interpretation ('if you come near, I'll show you'). We show that they have basically the same semantics as Sufficiency Modal Constructions studied by von Stechow and Iatridou (2007). We provide a detailed analysis of 'sufficiency' in Lewis's counterfactual framework, extending the analysis to pseudo-declaratives. We discuss the possible origins of the construction and offer a characterisation of the syntax-semantics interface.

1 Introduction

Pseudo-imperatives (P-imperatives) are structures of the form A-IMP B or A-IMP *and* B, where a conditional interpretation is possible, as in (1).

- (1) a. Come near (and) I'll show you
b. If you come near, I'll show you

It has been proposed that the morphologically imperative constituent does not convey a separate speech act of command, permission, etc., but combines with the second constituent to form a conditional unit, see Franke (2008) and Russel (2007) for recent references. This is specially useful to deal with contrasts noted by van der Auwera (1986) between A *and* B and A *or* B structures.

Unfortunately, it turns out that there are other, unexpected restrictions on the semantic relation between A and B in P-imperatives. Roughly speaking, A (*and*) B sounds strange whenever the causal relation between A and B is perceived as 'weak', in a sense to be clarified in section 4.2. Yet, the relevant examples allow for conditional paraphrases, a fact which is potentially problematic for the mentioned approaches. One

could assume that P-imperatives are just conditional structures in disguise. One must then explain why the semantic relation between A and B does not coincide with that observed between the antecedent and consequent of conditional sentences. Alternatively, one could describe P-imperatives as ‘special’ conditionals, which, when compared to the standard ones, obey additional constraints. In that case, the question arises whether there is a connection of some kind between the imperative morphology and these specific constraints.

In this paper, we follow the second route and show that P-imperatives are special conditional structures that most probably inherit their semantic features from an interaction between modal subordination and the basic semantics of imperative. In section 2, we present the data we consider in the paper. In section 3, we focus on certain problematic observations, which are not accounted for by current analyses. In section 4, we characterise the semantic constraint we propose in Lewis’s counterfactual framework, motivating the pseudo-imperative construction in section 4.3. Finally, in section 5, we discuss briefly some aspects of the syntax-semantics interface.

2 Basic observations

In this section, we provide a short description of the relevant structures in English and in French. In addition to P-imperatives, one finds P-declaratives (2a-b), where A is a declarative clause, P-optatives in French (2-c) and P-interrogatives (2d-e), where the ↗ marks rising intonation. We will be mostly concerned here with P-imperatives and P-declaratives.

- (2) a. You come near (and) I show you
 b. Tu t’approches (et) je te montre
 c. Qu’il vienne et je lui montrerai
 that he come-SUBJ and I him show-FUT
 d. You have any ↗ problem (and) they come
 e. Tu as un problème (et) ils viennent

AB structures, where A is imperative and declarative, exist independently, without any conditional interpretation. They realize two speech acts, a command (advice, invitation) in A, followed by the expression in B of a consequence of the eventuality that A’s speech act targets, through *modal subordination* (Roberts, 1989). For instance, (3) might be interpreted as “I want you to come near. Then, I’ll show you”. It seems that the future is preferred, but the present tense is not impossible.

- (3) (You) come near. I’ll show you

Several factors interact in facilitating or preventing a conditional interpretation for P-X (where X may be imperative, declarative, etc.). First, prosodic cues play a role in discourse attachment. Dagnat and Jayez (2008) show that, if a discourse segment A, occurring at the end of a sequence of segments Σ , is immediately followed by a segment B, the absence (or shortness) of pause between A and B and the presence of a continuative contour on A, favours a direct attachment of B to A, rather than to a previous

segment of Σ .¹ The nature of the discourse relation is largely unspecified. For instance, (4a) features a justification and (4b) a temporal relation. If, other things being equal, a conditional interpretation is possible, the combination of a short/null pause and a continuative rise favours the integration of A and B into a unique conditional discourse relation holding between A and B.

- (4) a. Hurry up we are late
 b. Il est arrivé il était huit heures
 ‘He came it was eight’

Two remarks are necessary at this point. First, it is important to keep in mind that prosody does not *create* the possible discourse relation(s). It only makes the attachment of B to A most plausible and natural. The preferred attachment itself needs a discourse relation to gain substance. Therefore, the mentioned prosody-driven approach does *not* in itself account for P-X interpretations (where ‘X’ covers at least imperatives and declarative cases and possibly others). It would have this power only if one could show that, for instance, imperatives and declaratives can convey some hypothetical meaning by themselves. This is unlikely for imperatives² and calls for further discussion in the case of declaratives. Second, from the fact that A and B can be connected by a discourse relation, it does *not* follow that the result forms a unique speech act. This might be the case for P-imperatives, as proposed by Franke (2008), but it is more debatable for examples such as (4) or (5) (Dargnat, 2008, ex. 10), where the question about the title remains separate and the global speech act, if any, does not consist in questioning the conditional relation.

- (5) Tu écris tes mémoires, tu leur donnes quel titre?
 ‘You write your memoirs, what title do you choose?’
 ≈ If you write your memoirs, what title do you choose?

However, in all cases, prosodic cues favour an ‘integrated’ interpretation. Either there is a unique speech act or one of the acts is ‘focal’ or ‘foregrounded’, that is, it constitutes a potential answer to a question under discussion or introduces such a question. For example, in French, (4b) can be an answer to the question *A quelle heure est-il arrivé?* (‘When did he come?’) and (5) introduces a question about the title. We group these two possibilities (speech act merging and foregrounding) under the generic label of (*discourse*) *integration*.

A second type of factor is the semantic relation between A and B. In the most clear-cut cases, B expresses a consequence of A. Consequences can be divided into cases of *triggering* and *generation*. Intuitively, an eventuality e_1 is a trigger of an eventuality e_2 whenever e_1 makes the occurrence of e_2 more probable (or certain) according to general social, physical or logical laws. e_1 generates e_2 whenever the occurrence of e_1 physically coincides with the occurrence of e_2 . For instance, one can open a door (e_2) by turning the key into the keyhole (e_1). Pollack (1986, 1990) distinguishes between generation and *enablement*: an action A_1 enables A_2 if A_1 contributes to executing A_2

¹See (Mithun, 1988, p. 335) for a similar remark on the absence of an intonation break between conjoined clauses.

²We disagree with Corminbœuf (2008) on this point.

but, in addition to executing A_1 , it is necessary to do something else in order to achieve the result of A_2 . Note that (1) is a triggering case, not an enablement one. In addition to the consequence vs. enablement distinction, one must consider the type of the terms of the discourse relation, or in Sweetser's (1990) terms the *domains* that are related. For instance, in (5), one may discern a relation between the fact of writing one's memoirs (content domain) and the speaker's question (speech act domain), which is prompted or at least made relevant by the writing. A content-based relation between writing one's memoirs and choosing a title for them is also possible. As shown by Sweetser (1990) and Dancygier (1998), there is a rich array of possibilities in *if*-conditionals. P-X are more restricted. For instance Austinian conditionals, a.k.a *biscuit-conditionals*, are infelicitous with P-imperatives and P-optatives (6). The corresponding imperatives and optatives are not impossible in P-X in general (7). These contrasts can be explained by assuming that certain P-X require that there be a triggering or generation relation (causation type) between the content of A and that of B (domain type). Franke (2008) imposes an analogous constraint on P-imperatives. As shown by (7), P-imperatives and P-optatives do not require that the A part describe an action.

- (6) a. ?? Be hungry (and) there are biscuits in the cupboard
 b. ?? Qu' il ait faim (et) il y a des biscuits dans le buffet
 That he have-SUBJ hunger (and) there are biscuits in the cupboard
- (7) a. Be hungry (and) you'll realize how hard it is to control your bodily reactions
 b. Qu' il ait faim (et)
 That he has-SUBJ hunger (and)
 il verra comme c'est dur de contrôler ses réactions corporelles
 'he'll see how hard it is to control one's bodily reactions'

A third family of parameters is the choice of tense and mood. We won't go into detail here, but we note that, in line with a similar observation by Culicover and Jackendoff (1997), *and* is not compatible with a conditional interpretation when A is in the conditional. So, *and* is not sufficient to determine a conditional interpretation.

- (8) a. You'd come near, I'd show you ('If you come near ...')
 b. You'd come near and I'd show you (\neq 'If you come near ...')

3 The problem

In this section, we make clear what the relevant data are and why they are problematic. In the literature on P-imperatives, one finds the view that they are not genuine imperatives but rather elements of a conditional construction (van der Auwera, 1986; Han, 1998; Takahashi, 2004; Russel, 2007; Franke, 2008). Whatever the details and the differences between them, these proposals have two benefits. First, they provide a simple solution to van der Auwera's asymmetry. van der Auwera (1986) observed that, in families of example like (9), whereas the first three forms are appropriate in opposite contexts, like cold/hot weather, the last one is more difficult to interpret in *both* contexts. If one assumes that the *and* sentences are conditional structures in disguise whereas the disjunctive structures associate two speech acts through modal subordination ('Do that,

otherwise ...'), the first three sentences are predicted to be pragmatically appropriate. More importantly, the last one is predictably odd in both contexts since the two speech act interpretation is implausible and the conditional one is not available. A similar distribution exists for P-declaratives.

- (9) a. Open the window and I'll kill you [Context: it's cold]
 b. Open the window or I'll kill you [Context: it's hot]
 c. Open the window and I'll kiss you [Context: it's hot]
 d. #Open the window or I'll kiss you

Second, if A is hypothetical, we have an explanation of why it externally behaves as an NPI-licenser environment (Culicover, 1972).

- (10) a. Make any serious attempt to understand string theory and it'll ruin your scientific life
 b. Fais la moindre tentative sérieuse pour comprendre la théorie des cordes et ça ruinera ta vie scientifique

In view of its ability to account for two major observations, the conditional approach seems to be on the right track. However, there are some unexpected contrasts, which exhibit three features.

1. A conditional resultative interpretation is available. So, there is no question of a 'hidden' Austinian interpretation.
2. Only paratactic (= non-coordinated) P-declaratives are natural.
3. The contrast is unstable and seems to depend on the consequent.

Suppose for instance that the addressee has just bought a new computer and is very nervous about possible breakdowns. The speaker tries to make him relax by pointing out that he has signed in for a hot-line service. Although the four variants in (11) aim at conveying the very same conditional meaning ('If you breakdown, you call the hot-line'), only the first is really natural.

- (11) a. You break down, you call the hot-line
 b. #You break down and you call the hot-line
 c. #Break down, you call the hot-line
 d. #Break down and you call the hot-line

One might hypothesise that the 'you call the hot-line' actually carries a directive speech act, a fact which, for some reason, would hinder the interpretation of the last three examples. But the contrast persists with P-optatives, which pattern like P-imperatives.

- (12) #Qu' il tombe en panne (et) il appelle la hot-line
 That he break down-SUBJ (and) he calls the hot-line

The contrast is also to be found with non-directive consequents. The directive interpretation may be absent from (13) if the speaker is taken to simply describe what is going to happen.

- (13) a. You have a headache, I give you some aspirin
 b. #Have a headache (and) I give you some aspirin
 c. #You have a headache and I give you some aspirin

In the conditional paraphrases of (11) and (13), a result interpretation is available, since calling the hot-line (getting aspirin) results from breaking down (having a headache): ‘If you break down, then you call the hot-line’ (description), ‘If you break down, then you may/must call the hot-line’ (directive), ‘If you have a headache, then I give you some aspirin’.

The instability of the contrast is evidenced by (14). Suppose a context of car-pursuit, where a bunch of gangsters is running after the speaker and the driver, who is the addressee. (14c) extends the paradigm in the direction of (13).

- (14) a. You break down (and) we are dead
 b. Break down (and) we are dead
 c. Have another fit (and) you are going to get an operation

At this point, the problem we face is the following. To what extent can we account for the observed contrasts without endangering the assimilation of P-imperatives and similar structures to integrated semantic objects, in which only one speech act is executed?

4 The automaticity condition

4.1 The basic automaticity constraint

The term ‘automaticity’ is reminiscent of Bolinger’s (1977) remark that in *A and B* P-imperatives, given *A*, *B* is ‘automatically’ true. A consonant suggestion has been made by von Stechow and Iatridou (2007) for Sufficiency Modal Constructions (SMC) of the general form ‘If you want to get *A* you only have to do *B*’. In essence, von Stechow and Iatridou propose that a SMC (i) presupposes that in every world where *A* obtains, the addressee does something and (ii) asserts that in at least one world where *B* obtains, the addressee does not do anything else than *A*. If we assume that P-imperatives correspond to SMC, we can account for (11c-d): there is no world reasonably similar to the actual world in which it is sufficient to break down to call the hot-line, since the call itself is a mandatory action, which is not triggered/generated by the breakdown independently of the agent (the addressee). The proposal has to be slightly relaxed, to allow for the possibility of (14)-type example. In the formulation given in (15), we leave open the possibility that *a* does or *undergoes e*.

- (15) Given an agent *a* and a couple of eventualities *e*, *e'*, in which *a* participates, we say that *e'* is an automatic consequence of *e* with respect to *a*, if *e* causes *e'* and *e'* is not an action by *a*.

In view of examples like (16), we do not need to describe a presupposed component. *B* reacts to *A*’s P-imperative by denying that breaking down would lead automatically to death. It is usually assumed that direct rejections (‘you are wrong’, ‘It’s false’, ‘You are lying’, etc.) cannot target the presupposed or implicated part of an assertion.³

³Actually, this is not that simple. In some cases, one can construct natural examples where a discourse participant attacks a presupposition or a conventional implicature. However, in (16) and analogous examples, it seems difficult to find a presupposition or conventional implicature trigger and to articulate a main content fundamentally different from ‘*B* automatically follows from *A*’.

- (16) A – Break down (and) we are dead
 B – You're wrong, we have guns, remember?

This shows that the constraint for P-imperatives must put the automaticity condition at the level of the main content. We treat P-optatives along the same lines since they pattern with P-imperatives. Only conjunctive P-declaratives must obey the same constraint.

(17) **Automaticity condition**

A P-imperative or P-optative of the form A (*and*) B is appropriate only under an interpretation where the eventuality described by B is an automatic consequence of the eventuality described by A with respect to the addressee. P-declaratives of the form A *and* B are subject to the same constraint.

Examples like (13) raise a problem, since having a headache might be a sufficient condition for getting aspirin if the aspirin is provided by someone else than the relevant agent (by default, the addressee in P-imperatives). Although they may sound odd out of the blue, they improve in appropriate contexts. For instance, (13) fits well in a situation where the addressee is craving for aspirin. Generally speaking, communicating the fact that B is an automatic consequence of A makes better sense when automaticity is relevant to the addressee's goals and concerns, that is, whenever comparing A to other non-automatic triggers of B or B to other non-automatic consequences of A can help the addressee to reach her goals or to update/revise her expectations, given her current concerns. When it is difficult to abduce plausible contexts for *using* constructions that convey automaticity, they will be felt as anomalous, even if it is *not* difficult to abduce contexts that satisfy their basic semantic requirement, i.e. the automaticity condition. This is just one more illustration of the fact that the *Gedanke experiment* of interpreting sentences in isolation combines understanding the meaning of the sentences *and* motivating their use. As an additional symptom of the difference, note that the following variant of (11) is perfect in a context where the addressee is seeking a reason for calling the hot-line.

- (18) a. You break down (and) you can call the hot-line
 b. Break down (and) you can call the hot-line

4.2 A Lewis-style causal analysis

So, pseudo-imperatives and coordinated P-declaratives demand that there be a causal relation between the eventualities described by A and by B. It is apparent from the discussion of causation type in section 2 that sufficient conditions correspond to triggering or generation, but never to enablement. At this stage, we have to make precise at least one notion of consequence, in order to provide a framework in which we can express the sufficiency requirement that characterises the pseudo-X we consider.

We resort to Lewis's (1973a; 1973b; 2004) analysis of causation. Although some subtle aspects of causation might not be captured by Lewis's approach (see the papers in Collins et al. (2004) for various illustrations), we consider that it covers all the main cases we need to take into account.

(19) **Lewis's causal dependency**

1. For a given similarity ordering \prec between worlds, $w, \prec \models A \Box \rightarrow B =_{\text{df}}$
at every w -closest world where A, B
2. B causally depends on A at w ($w, \prec \models A \Rightarrow B$) $=_{\text{df}}$
 $w, \prec \models (A \Box \rightarrow B \ \& \ \neg A \Box \rightarrow \neg B)$.

One must keep in mind that the intuition for ‘A being a sufficient condition for B’ in a counterfactual analysis may convey a tension. On the one hand, to establish the truth of $A \Box \rightarrow B$ at w , only the *minimal* revisions of w with A are considered. This entails that all that is necessary to derive B from A is already present in w or is a consequence of adopting A in w and making as few changes as possible. In this respect, A is ‘sufficient’ to ensure B . On the other hand, events posterior to A in w might play a role; so, in that respect, A is not really ‘sufficient’ to trigger B . Consider (14): if an unfortunate breakdown occurs, the B event (the murder) cannot take place if the gangsters change their plan for some reason and decide to abandon the pursuit. For B to take place, an action by the gangsters is required, which means that the murder is not really ‘automatic’ in a strictly causal and deterministic sense. However, in the situation at hand, the murderous intentions of the gangsters are part of the initial conditions. Therefore, in order to obtain an acceptable definition for ‘ B is an automatic consequence of A at w ’, we need to make sure that (i) A causes B , that (ii) no eventuality of w posterior to or simultaneous with A and which would not be caused only by eventualities preceding A is necessary for obtaining B and that (iii) actions of the relevant agent (e.g. the addressee for P-imperatives) may be suppressed without changing the result B .

We construct our definition for automaticity in two major steps. First, we define a notion of sufficient condition; then, we define automaticity proper. We abbreviate (19.2) as $A \Rightarrow_{w, \prec} B$. Worlds are seen as sets of eventualities. The set of worlds, W , contains every consistent subset of eventualities. In particular, if $w \in W$, $w' \subseteq w$ and w' is consistent, $w' \in W$.

(20) For a set of eventualities \mathcal{E} in w , $CAUSE_{w, \prec}(\mathcal{E}) = \{e \in w : \exists e' \in \mathcal{E} (e' \Rightarrow_{w, \prec} e)\}$

$CAUSE_{w, \prec}(\mathcal{E})$ stands for the set of causes of eventualities in \mathcal{E} . We can now ‘slice up’ worlds into temporal regions with respect to A . $X <_w Y$ notes that the starting point of Y is posterior to that of X in w .

- (21) 1. $w \lll A =_{\text{df}} w - \{e : A \leq_w e\}$.
2. $w \prec_A = w \lll A \cup \{e \in w : CAUSE_{w, \prec}(\{e\}) \subseteq w \lll A\} \cup$
 $\{e \in w : \forall e' ((e' \in CAUSE_{w, \prec}(\{e\}) \ \& \ e' \geq_w A) \Rightarrow$
 $\exists e'' (e'' \in CAUSE_{w, \prec}(\{e\}) \ \& \ e'' <_w A))\}$

$w \lll A$ is the set of eventualities that precede A . $w \prec_A$ is the set of eventualities that (i) precede A or (ii) have at least one causal precursor that precedes A . The notion of sufficient condition (22) corresponds to a causal dependence between a precursor A and a consequence B where the world ordering is sensitive only to those eventualities that precede A or have precursors that precede A .

(22) Let $W \prec_A$ be $\{w \in W : \exists w' \in W (w = w' \prec_A)\}$. A is a sufficient condition for B at (w, \prec) whenever $w \prec_A, \prec \upharpoonright W \prec_A \models A \Box \rightarrow B$ and $w, \prec \models \neg A \Box \rightarrow \neg B$.

In prose, A is a sufficient condition for B at w if, (i) when we compare only worlds where no eventuality not preceding A or causally dependent only on eventualities not preceding A takes place, at every closest world, if A then B , and (ii) $\neg A \Box \rightarrow \neg B$ holds at w in the original model $(W, <)$. In contrast with $A \Box \rightarrow B$, we do not require that worlds be modified for $\neg A \Box \rightarrow \neg B$. Consider the gangsters' case. If the fugitives do not break down and the police has enough time to rescue them, we don't want to suppress the rescuing event because it occurs after the breakdown, since doing so might falsify $\neg \text{breakdown} \Box \rightarrow \neg \text{killing}$.

Under the simple deterministic view we have adopted, 'A is a sufficient condition of B' means that the causal link from A to B does not involve any eventuality that would be independent of every event preceding A . In the gangsters' case, given the initial setting (the physical circumstances and intentions of the agents) the killing is unavoidable once the breakdown has occurred. Thus, the breakdown is a sufficient condition of the killing since all the eventualities that have a part in the result are triggered or generated by eventualities that precede the breakdown. With (11), the breakdown is also a sufficient condition of the call if calling the hot-line is the consequence of a plan existing before the breakdown. In order to reflect von Fintel and Iatridou's idea, we need an extra constraint in the definition of sufficient condition. If a is the relevant agent, the general idea is to 'ignore' the actions of a that do not precede A , even if they play a causal role in bringing about B and are caused by eventualities that precede A . We define a new shrinking method, $w_{\not\prec A}^a$, which consists in subtracting from $w_{\not\prec A}$ the actions by a that do not precede A . α_x ranges over actions by x .

$$(23) \quad w_{\not\prec A}^a = w_{\not\prec A} - \{\alpha_a : \alpha_a \geq_{w_{\not\prec A}} A\}$$

Finally, A entails B automatically if (i) B causally depends on A in a model where we keep only the worlds where eventualities irrelevant to the causal connection between A and B and actions not preceding A have been suppressed and (ii) $\neg B$ causally depends on $\neg A$ in the initial model.

(24) Automatic consequence

B is an automatic consequence of A in w w.r.t. an agent a whenever:

$$w_{\not\prec A}^a, < \upharpoonright W_{\not\prec A}^a \models A \Box \rightarrow B \text{ and } w, < \models \neg A \Box \rightarrow \neg B.$$

When applied to (11), (24) predicts that the action of calling the hot-line will be removed from any relevant world, which conflicts with the possibility of characterising the call as a consequence of the breakdown. The analysis offered here deliberately ignore the issue of causal *preemption*, that is, roughly speaking, the fact that several conflicting causes may produce the same effect. It does not seem to be crucial for the type of simple examples we have commented. However it is an open problem whether preemption can be accommodated in a counterfactual framework like Lewis's (see Hall and Paul (2003); Spohn (2006)).

4.3 How come?

As noted in section 2, modal subordination plays a role in the conjunction of an imperative clause and a clause expressing one of its consequences (Jayez, 2002; Jayez and

Rossari, 1999). Imperatives propose to or impose on the addressee *a* some course of action α . If the result of α depends on further actions of *a*, they should be mentioned as recommended or compulsory. It would be uncooperative to mention only α and to count on some other action which does not necessarily follow from the context and is not a default action by the addressee. So, in general, in a structure A-IMP B, where B expresses the result of A, this result is an automatic consequence. In such modally subordinated structures, automaticity is a conversational implicature. It is not infrequent to see pragmatically preferred interpretations of linguistic structures acquire a conventional meaning, although there is probably no agreement about what factors are (ir)relevant (frequency, saliency, etc.), as evidenced by the discussion in Ariel (2008, chap. 5). We conjecture that automaticity has become the prominent conventional meaning of A-IMP B structures whenever prosody (short/null pause + continuative rise) favoured an integrative interpretation, as explained in section 2. In addition to this combination of a conditional reading (integration) with automaticity ('frozen pragmatics'⁴), P-imperatives exhibit a sort of bleaching on the imperative itself. The A part may use non-controlled predicates, as in (25).

- (25) a. Be a blonde and every man will start fantasising about you
 b. #Be a blonde

What is the role of *and*? Normally, *and* introduces the last term in an enumeration. So A *and* B suggests that B is the last term in a sequence of eventualities. Consider paratactic (= non-coordinated) P-declaratives AB. The conditional interpretation corresponds to the view that the eventuality e_A expressed by A leads to a point where e_B is normally true or bound to be true. But other eventualities might play a role. The relation between e_A and e_B may be paraphrased by 'given A, normally B', which means that, in certain cases, for e_B to obtain, e_A should be supplemented by other eventualities, which are expected to happen ('normal') in general or in the particular circumstances under consideration. With coordinated P-declaratives, B is marked as final. Why would a speaker choose to emphasise that a result is final, rather than just a result? A plausible reason is that e_A leads directly to the result (e_B), without it being necessary to mention any intervening eventuality. So, the speaker is convinced that, given A, the whole process will run to its term, this belief being itself motivated by the fact e_A leads automatically to e_B without any agent intervention (blind causality) or with respect to some agent, whose action is irrelevant to the result. We conjecture that the latter inferential motivation has been internalised as a grammatical construction, which would explain the difference between the paratactic and *and*-coordinated forms for P-declaratives.

5 Interface problems

In this section, we discuss briefly the representation of P-structures in an extension of the HPSG framework (Pollard and Sag, 1994), designed to accommodate *constructions* in the sense of Goldberg. Strictly compositional structures preserve the contribution of their constituents in isolation. In P-structures, A (*and*) B, A has not the meaning it has

⁴A term we borrow from Levinson (1987), see also Hyman (1984).

in isolation, e.g. imperatives are not semantically imperative. Moreover, the prosodic integration of A and B cannot be attributed to A or B separately. The rising contour itself seems to be ambiguous between continuation and interrogation (Dargnat and Jayez, 2008). This shows that P-structures should be analysed as constructions. It is well-known that Construction Grammars exploit feature structures of the type used in HPSG, in particular because they provide facilities for accessing different parts of information simultaneously (multidimensionality). The default mechanism of HPSG (Lascares and Copestake, 1999) can also be imported. The following feature structure summarises the most important aspects of the representation for French. / notes a default value.

The *decl-hd-su-cl* type corresponds to declarative headed clauses with a subject and demands indicative or conditional mood. Imperative clauses demand imperative mood. The initial string X (*et*) Y is split into two constituents *consA* and *consB*. *consA* hosts preferentially a rising contour and is preferentially saturated ($/\{\}$). The pause is preferentially short or null. Two discourse moves A' and B' with a common speaker are associated with A and B . *attach* type objects describe the attachment of a discourse move to a subset (list) of discourse moves through a discourse relation (value of DR). B' must be attached to A' through an automatic consequence relation. \Leftarrow notes the replacement of a value. The original illocutionary force of A' is switched to a hypothetical value. The whole construction inherits its illocutionary force (assertion) from B' . The net result amounts to asserting the proposition (C) that an automatic consequence relation holds between a hypothetical discourse move (A') and an assertive discourse move (B') attached to it.

(I) *decl-hd-su-cl*: [HEAD [MOOD *ind* \vee *cond*]] (II) *imp-hd-cl*: [HEAD [MOOD *imp*]]

(III) *P-imp/decl*:

STRING	$\langle [X] . (et) . [Y] \rangle$	
CONSA	$\left[\begin{array}{l} \text{decl-hd-su-cl} \vee \text{imp-hd-cl} \\ \text{MORPH} \quad [X] \\ \text{SLASH} \quad / \{ \} \\ \text{END-CONTOUR} \quad / \text{rising} \\ \text{DISC-MV} \quad \left[\begin{array}{l} \text{dmv} \\ \text{SPEAKER} \quad [1] \quad [A'] \\ \text{ILLOC-FORCE} \quad [F1] \end{array} \right] \end{array} \right]$	[A]
PAUSE	/(short \vee null)	
CONSB	$\left[\begin{array}{l} \text{decl-hd-su-cl} \\ \text{MORPH} \quad (et) [Y] \\ \text{SLASH} \quad / \{ \} \\ \text{DISC-MV} \quad \left[\begin{array}{l} \text{dmv} \\ \text{SPEAKER} \quad [1] \quad [B'] \\ \text{ILLOC-FORCE} \quad [F2] \end{array} \right] \end{array} \right]$	[B]
DISC-MV	$\left[\begin{array}{l} \text{dmv} \\ \text{SPEAKER} \quad [1] \\ \text{ILLOC-FORCE} \quad [F2] \\ \text{PROP} \quad [C] \end{array} \right]$	
CNTXT	$\left[\begin{array}{l} \text{DISC-MVS} \quad \text{list-of}(\text{disc-mv})[2] \\ \text{DISC-RELS} \quad \text{list-of} \left(\left[\begin{array}{l} \text{attach} \\ \text{DR} \quad dr \\ \text{DISCMV1} \quad \text{sub-list-of}([2]) \\ \text{DISCMV2} \quad \text{el-of}([2]) \end{array} \right] \right) \oplus \left[\begin{array}{l} \text{attach} \\ \text{DR} \quad \text{automatic consequence} [C] \\ \text{DISCMV1} \quad [A'] \Leftarrow ([F1]=hyp) \\ \text{DISCMV2} \quad [B'] \end{array} \right] \end{array} \right]$	

This basic feature structure has to be supplemented with constraints that handle more specific details, such as the presence of *et* or mood/tense agreement. E.g., P-declaratives require the presence of *et* under the automatic consequence interpretation (1), when *A* is in the conditional, *B* also must be in the conditional (2), *A* may not be in the plus-que-parfait (\approx pluperfect) (3), etc., see Dargnat (2008) for other examples.

1. CONSA : *decl-hd-su-cl* \Rightarrow STRING : $\langle X . et . Y \rangle$
2. CONSA : HEAD|MOOD : *cond* \Rightarrow CONSB : HEAD|MOOD : *cond*
3. CONSA : TENSE : \neg *plus-que-parfait*

6 Conclusion

In further work, we will apply the present approach to a larger spectrum of paratactic structures, involving for instance optative and interrogative clauses as well as NPs (see Culicover's (1972) OM-sentences). Ideally, the relationship between coordination and conditional interpretation would have to be studied in a broader typological and diachronic setting. In particular, the fact that *and* is semantically distinctive for P-declaratives should be compared with the idea that, typologically, conjunctive coordination is less marked than, for instance, disjunctive coordination (Ohori, 2004). While the contrast between *and* and *or* P-declaratives (one vs. two speech acts) goes in the same direction, the role of *and* in P-declaratives is, in this respect, in need of further clarification.

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