The Speech Act Assignment Problem Revisited: Disentangling Speaker's Commitment from Speaker's Call on Addressee[*]

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0. Introduction

Our goal is to revisit the problem known as the Speech Act Assignment Problem (SAAP) (Gazdar (1981)) taking advantage of a semantics that assumes a rich ontology of semantic content and a pragmatics that allows for a fine-grained modelization of dialogue. The traditional assumption, revived in the early days of the generative program under the name of Literal Force Hypothesis (LFH) (Sadock (1974), Levinson (1983)), is that the syntactic construal of the sentence plays the crucial role in the SAAP. The LFH posits that a restricted set of clause types and a restricted set of illocutionary forces and it claims that there is an one-to-one relationship between them as summarized in (1):

(1)   a. The declarative type is associated with asserting.
       b. The interrogative type is associated with questioning.
       c. The imperative type is associated with requesting.
       d. The exclamative type is associated with exclaiming.

Gazdar launched the most forceful criticism of the LFH in a paper published in 1981 and, since then, it is commonly accepted that the LFH is falsified and should be rejected. In this paper, we re-open the case and we argue that there are regularities holding between clause types and some aspects of illocution.

Our proposal crucially relies on two assumptions. The former is that utterances have two types of impacts on the dialogical context. On the one hand, they bring about a new commitment for Speaker; on the other hand, they call on Addressee for him to take up the utterance. Traditionally, it is assumed that there is a symmetry between Speaker's commitment and Speaker's call on Addressee. For instance, it is usual practice to consider that statements commit Speaker to their propositional content and that they call on Addressee for him to commit himself to the same content. We claim that this symmetry is not compulsory: Speaker's commitment and Speaker's call on Addressee may be different. Such a configuration is precisely what characterized most of the counterexamples raised against the LFH. For instance, demands for confirmation, i. e. questioning declaratives, can be analyzed as committing Speaker to their propositional content on the one hand and, on the other hand,

calling on Addressee for him to take up the utterance as a question (equivalent to a polar question). This is the general idea upon which we build our proposal.

The latter assumption pertains to the notion of clause type. There are many criticisms of (1) coming from the pragmatic side, much less from the syntactic side. And yet, the very notion of clause type is far from obvious. For example, from a syntactic point of view, polar questions and variable questions are strikingly different.[1] We will assume a definition of clause types that conjoins a type of semantic content and several syntactic construals, following a route opened by Ginzburg & Sag (2000).

Given these assumptions, we propose a revisited version of the LFH whose core content is the following:

(2)   a. Clause types are associated with Speaker's commitment in a one-to-one manner;
       b. Clause types allow for several types of Speaker's call on Addressee, but;
       c. By default, Speaker's commitment is symmetrical with Speaker's call on Addressee, and;
       d. Grammar provides interlocutors with a limited set of conversational move types (CMT). A CMT conjoins a type of Speaker's commitment and a type of Speaker's call on Addressee.

The paper proceeds as follows. In section 1, we present the main drawbacks of the traditional theory of illocutionary forces and speech acts as analyzed in Gazdar (1981). In section 2, we redefine the notion of clause type following Ginzburg & Sag (2000). In section 3, we analyze the dialogue change potential of illocutionary forces using the framework proposed by Ginzburg (to app.); we reshape it in order to account for assertions, questions, commands and exclamations. In section 4, we show how to capture the two sides of the dialogue change potential of utterances: we introduce the notion of conversational move type (CMT) and the taxonomy of CMTs. We then conclude by summarizing the aspects of the LFH we have rescued from Gazdar's attacks.

1. The Limits of Speech Act Theory

Gazdar (1981) highlights two problems in the Speech Act Theory that was developed by pragmaticians in the sixties-seventies. The former pertains to the semantic content of utterances: utterances, whatever their clause type, viz. declarative, interrogative, imperative or exclamative, uniformly convey propositions. The latter pertains to the illocutionary potential of utterances: each clause type is associated with a different illocutionary force (assertion, question, directive and exclamation).[2] This is the core content of the Literal Force

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[1] Our terminology is based on Huddelston (2002). From a syntactic point of view, we distinguish open interrogatives (e.g. *Who arrived?*) from closed interrogatives (e.g. *Has he arrived?*) (other labels: *wh-interrogatives vs* polar interrogatives); from a semantic point of view, we distinguish variable questions from polar questions.

[2] From now on, we use the term *directive* (instead of *command*) to cover speech act, regardless of their form, by which the speaker's desire or opinion is imposed on the addressee as an order, demand, request, plea, warning or suggestion.

Hypothesis.[3] In this section, we reassess Gazdar's criticisms from the vantage point of contemporary semantics and pragmatics.

1.1 Uniformity of content
In the pragmatics of the sixties-seventies, speech acts are decomposed into a content and a force as schematized in (3). Crucially, speech acts differ in force only. The content of speech acts is always a proposition.

(3)   Speech act = (ILLOCUTIONARY FORCE, p)

As a consequence, the three utterances in (4) share the same propositional content, p, while they differ in illocutionary force.

(4)   a. It is raining.   (ASSERT, p)
        b. Is it raining?   (QUEST, p)
        c. Let it rain!   (COMM, p)

1.1.1. Gazdar's arguments
Gazdar refutes the analysis in (3) with an argument using *reductio ad absurdum* that he applies to questions. First, he takes a polar question (5a) and a variable question (5b). In order to obtain the propositional content of (5b), he takes it that *who* contributes a free variable and a restriction, which yields 'x ∧ human(x)', and then applies existential closure, which gives us (6). As for (5a), he takes it that *somebody* is an existential quantifier, which gives us (6) again. Then, we obtain the same content for both (5a) and (5b), which does not enable one to capture the difference in meaning of the two types of interrogatives.

(5)   a. Will somebody eat some cookies?
        b. Who will eat some cookies?

(6)   (QUEST, ∃x ∃y (human(x) ∧ cookies(y) ∧ will-eat (x,y))

One could argue that the difference in meaning between (5a) and (5b) does not pertain to propositional content, but to illocutionary force. This would lead us to posit that polar questions and variable questions correspond to two different illocutionary forces. This move, which has a strong *ad hoc* flavor, will not save us since the same problem plagues the analysis of variable questions featuring an existential quantifier such those in (7a) or (7b) and multiple variable questions (7c). All these questions share the same propositional content and the trick which consists in positing different forces to explain their differences would give us no way out.

(7)   a. Who ate something?
        b. What did someone eat?
        c. Who ate what?
        d. (QUEST-wh, ∃x ∃y (human(x) ∧ ate (x,y)))

Gazdar concludes that one should give up (3), i. e. the idea that utterances convey a proposition whatever clause type they belong to and that there is only one type of semantic

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[3] Gazdar uses *Literal Meaning Hypothesis*. We take up Sadock's (1974) expression *Literal Force Hypothesis* (LFH).

content, viz. propositions. He just suggests to posit several types of semantic contents by alluding to Hamblin's theory of questions (Hamblin (1973)). In a nutshell, declarative sentences express propositions, while interrogative sentences express sets of propositions. He does not touch the problem raised by the semantic analysis of imperative and exclamative sentences.

1.1.2. Types of semantic content

In contemporary semantics, we are more prone to accept that non-declarative sentences convey non-propositional contents. Ginzburg & Sag (2000) propose a rich ontology that enables us to solve the qualms brought about by (4). [4]

Ginzburg & Sag develop their ontology in the framework of situation theory. [5] It comprises, along with basic objects (individuals, times, situations, relations), structured objects whose properties are obtained compositionally. The basic structured object is the SOA; it enters the composition of all other structured objects: Propositions and also Questions (i. e. propositional abstracts), Possibilities (among them Facts) and Outcomes. [6] We refer the reader to Ginzburg & Sag for a thorough presentation and justification of the proposal.

From this perspective, the semantic content of interrogatives is given the type Question, viz. it is a propositional abstract obtained by abstraction upon a proposition. The idea is to abstract over variables, rather than keep them free or uninstantiated as in open propositions. Ginzburg & Sag resort to simultaneous abstraction which is similar to the lambda-abstraction used in the standard lambda-calculus, except that it operates on a set of parameters whose cardinality is not fixed. Hence, we can abstract 0, 1 or several parameters simultaneously. This makes possible a uniform semantics for both polar and variable questions. The content of polar questions involves an empty abstraction. Accordingly, the content of (5a), (5b), (7b) and (7c) is analyzed as in (8) below.

(8)   a.   Will somebody eat some cookies? [= (5a)]
         a'. $\lambda\{\}$. $\exists x \exists y$ (human(x) ∧ cookies(y) ∧ will-eat (x,y))
         b.   Who will eat some cookies? [= (5b)]
         b'. λx. $\exists y$ (human(x) ∧ cookies(y) ∧ will-eat (x,y))
         c.   What did someone eat? [= (7b)]
         c'. λy. $\exists x$ (human(x) ∧ ate (x,y))
         d.   Who ate what? [= (7c)]
         d'. $\lambda x,y$. (human(x) ∧ ate (x,y))

Such an analysis says nothing of which illocutionary force is associated with the utterances in (5) and (7). More precisely, it dissociates the analysis of the semantic content from that of the illocutionary force.

The proposal deals with all clause types which are associated in a one-to-one manner with a type of content: imperatives and exclamatives are respectively associated with Outcomes and Facts (Ginzburg & Sag, 2000: 61 *et sq*). The proposal is summarized in (9).

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[4] Truckenbrodt (2004) is another thought-provoking proposal, though less formally elaborated.
[5] As it has been formally redefined in Seligman et Moss (1997). From now on, we write the names of types of semantic content with a capital letter.
[6] SOAs contributes what is common to different structured objects. This is especially important for us, since it enables one to salvage the intuition that utterances belonging to different clause types may share « a common semantic denominator ». For example, utterances in (4) share the same content; this content is not the proposition that it rains but the description of a situation where it rains (See Ginzburg & Sag, 2000: 84).

(9)

Syntactic types	Semantic content types
Declarative	Proposition
Interrogative	Question (or Propositional abstract)
Imperative	Outcome
Exclamative	Fact

1.2. The literal force hypothesis (LFH)

The LFH claims that there is a one-to-one relationship between clause types and illocutionary forces (cf. (1)). Gazdar adduces two arguments against the LFH: (i) utterances in a given clause type may give rise to a great number of speech acts and (ii) speech act assignment depends on Addressee's uptake, hence on Addressee's interpretation of the utterance.

1.2.1. Clause types and speech acts

In order to invalidate the relation between clause types and illocutionary forces, Gazdar recycles the observation that a declarative utterance, such as (10), may give rise to a great number of speech acts.

(10)   A. : You will go home tomorrow.

According to Gazdar, the utterance (10) may achieve an assertion, a question, a prediction, an order or a reply. More exactly, « *the addressee may find* it to be an assertion, a question, a prediction, an order, a reply, *and so on*» (emphasis is ours). The possible interpretations of Addressee are reflected in the gamut of responses Addressee may perform when it becomes his turn to take up (10). Following Gazdar, Addressee is supposed to show that he finds (10) to be an assertion when he uses (11a), a question by using (11b), a prediction by using (11c) and an order by using (11d).

(11)   B. :   a. How do you know?
                 b. Yes.
                 c. That's what you think.
                 d. Okay.

The argument is twofold:
- an utterance gives rise to a great number of speech acts, indeed even to an infinite set of speech acts, as implied by the use of *and so on*.
- the speech act assignment depends on Addressee.
We discuss the former below, and the latter in § 1.2.3.
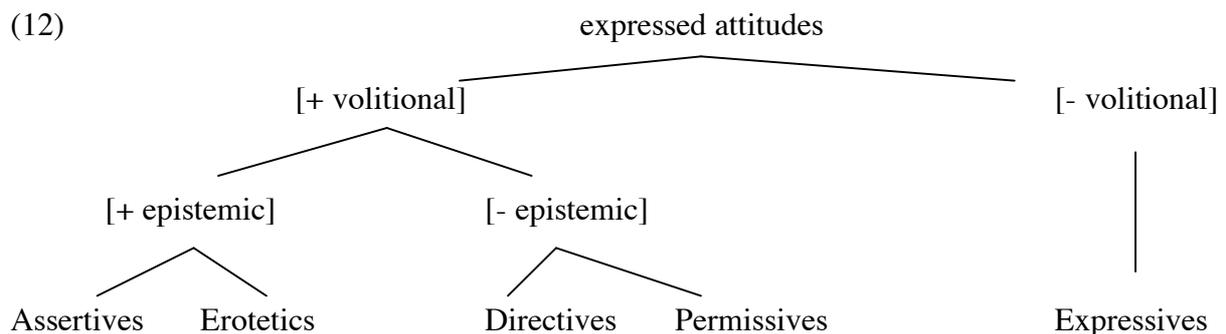
1.2.2. Syntactic type versatility

Gazdar's observation is disputable, in particular the claim that (10) gives rise to (at least) five different speech acts. There are two doubtful candidates: replies and predictions. A reply is nothing else than an assertion which occurs in a specific environment (the second member of a question-answer pair). In the same way, a prediction is also an assertion which describes a

future situation.[7] Thus, Gazdar's argument is reducible to the claim that (10) may convey an assertion, a question or a directive.

There is a more general problem in Gazdar's argument: he does not distinguish between speech acts and types of speech acts, what is generally called illocutionary forces. For sure, there are many different speech acts, which are linked to specific contextual conditions, but it seems undisputable that these speech acts fall into a few general types. At least, this is the result of the major part of the literature about illocution, which is precisely devoted to how to classify speech acts. Particular taxonomies have been criticized, but the very idea that Grammar knows of a few types of speech acts is not called into question.

The classical taxonomy (Searle & Vandervecken (1985)) claims that there are five and only five classes of speech acts (assertives, directives, commissives, declarations and expressives). This classification has been the object of several criticisms: directives and commissives can be brought together (see among others Pak et al. (2005)). Most of the declarations are achieved via assertives, and consequently it has been proposed by Zaefferer (2001) to analyze them as a subclass of assertions.

Zaefferer (2001) proposes a taxonomy that is based on Speaker's attitude rather than on putative basic functions of language ('say how things are', 'try to get other people to do things', 'commit oneself to doing things', etc.). His taxonomy has the structure schematized in (12).

(12)

expressed attitudes

[+ volitional]   [- volitional]

[+ epistemic]   [- epistemic]

Assertives   Erotetics   Directives   Permissives   Expressives

Zaefferer's taxonomy has been a direct source of inspiration for our own proposal.[8] The classification of update operations in dialogue that we will propose to analyze the semantic import of illocutionary forces (see section 3 below) shows an analogical structure, in particular a sharp divide between exclamations and other types of speech acts.

To sum up, one can leave aside the fact that declarative utterances may give rise to a great number of speech acts. Accordingly, we will only consider the fact that they may convey an assertion, a question or a directive. For sure, this latter observation invalidates the LFH as it is formulated in (1). Now, one should wonder whether the notions of assertion, question, and directive are the adequate analytical categories to capture the illocutionary import of clause

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[7] *That's what you think* in (10c) above is not a specific uptake of a prediction. It could be used to refuse or to deny an assertion, as shown in (i):
(i)   A. : Mary has just finished her job.
          B. : That's what you think!
[8] It has been much influential upon Truckenbrodt's (2004) analysis too.

types. They might be too coarse, hiding differences between aspects of illocution. This is precisely our point of departure to reconsider the SAAP.

1.2.3. Addressee's assignment

The second argument put forward by Gazdar against the LFH is that the speech act assignment is performed by Addressee. This is commonly accepted nowadays, but this should be made more precise.

For certain, Conversation Analysis has shown that the making of dialogue locally depends on Speaker's interpretation of the turn she takes up. Such an interpretation includes which illocutionary actions she recognizes in her Addressee's utterance. But, a distinction should be crucially drawn between the two types of resource Addressee may use to come up with an illocutionary assignment: (i) either context knowledge bearing on Addressee, Speaker, their relations in the world and the current conversation or (ii) grammaticalized features of the utterance which indicate how it should be taken up. Green (1975) provides us with a clear illustration of the distinction when she discusses the directive use of interrogative utterances. Consider (13):

(13)   a. Have you taken away the garbage?
        b. Why don't you be quiet!

The closed interrogative (13a) may be used as a directive only in a context where Addressee is expected to take away the garbage at a certain time, whereas the open interrogative (13b) conveys a directive in all contexts. According to Green, a reply to (13b) with *because* or whose content could be interpreted as a reason would not only be non-felicitous, but it would show a poor competence of English. As whimperatives such as (13b) show, there are grammatical resources in the utterance that constrain Addressee's illocutionary assignment.

If one admits that (13b) is an interrogative clause, (13b) does not have the effect on Addressee that interrogatives usually bring about: it has a directive import. The directive import is brought about by other features than those subsumed in clause type, a construction featuring *why*, inverted *do* in the negative and a verb in the base form. The point here is twofold: (i) the directive call on Addressee is grammaticalized in utterances such as (13b) and (ii), one must recognize that clause type is not the only grammatical resource Speaker have access to when performing an illocutionary assignment.

We will leave aside the illocutionary assignments based on contextual knowledge (how an directive import is assigned to an interrogative such as (13a)) to concentrate only on the grammatical resources that are available to Addressee for illocutionary assignment. Here again, the problem is more complex than what was assumed when the LFH was under discussion, since we recognize that the clause type is not the only factor that is relevant for illocutionary assignment. Consequently, it is now necessary to reformulate the question of the relation between clause types and illocution as follows:

(14)   a. What type of information does clause type contribute to illocutionary assignment?
        b. What are the relations between the information contributed by clause type and that which is conveyed by other features in the utterance, such as the '*don't you* construction' in (13b)?

The traditional conception, which has been developed as the theory of indirect speech acts, is that the information contributed by clause types is overwritten by constructional means. This

is what is assumed by Green for whimperatives such as (13b), although she recognizes that Addressees do not take up whimperatives as they do with regular imperatives (ibid. : 138). Here, we will take another route and argue that there is a 'division of labor' between clause type and other features in the clause: clause type contributes information about Speaker's commitment whereas Speaker's call on Addressee may be specified constructionally (as in whimperatives) or lexically (by tags as we will see).

1.3. Summing up

We cannot keep the LFH as formulated in (1) unchanged. But neither can we conclude that there is no tight relation between clause types and aspects of illocution. To address this issue, one should have a finer understanding of what is called illocutionary force and take into consideration all the grammatical aspects of utterances that may contribute information for illocutionary assignment. Moreover, there is another dimension we have not yet considered, viz. clause types. Is it relevant to keep them in the first place? We devote the next section to this question.

2. The Notion of Clause Type

We have assumed so far that there is a limited number of clause types on an intuitive basis. In fact, this is a thorny issue. Indeed, all attempts at defining clause types end up by resorting to illocutionary forces, hence involving the LFH and, consequently, face the criticisms developed in the preceding section. Huddleston observes when he discusses interrogatives: « the terms 'closed interrogative' and 'open interrogative' suggest that they are subclasses of 'interrogative'. Yet what they have in common is much more a matter of meaning than of syntax: they both characteristically *express questions*. From a syntactic point of view, they are in fact *strikingly different* » (Huddelston, p. 858 ; we underline). In the previous section, we end up concluding that declaratives may convey an assertion, a question or a directive; the observation extends to Huddleston's open interrogatives (e. g. *where does he go?)* and closed interrogatives (e. g. *has he gone away?).*[9] Hence, if the LFH is given up, the classification of clauses is directly shaken up. We are facing a threefold choice: (i) we accept that clause types are only prototypically associated with illocutionary forces, (ii) we assume that the illocutionary force may be cancelled in context (giving rise to indirect speech acts), (iii) more radically, we break away from the tradition by giving up illocutionary forces as the defining feature of clause types. The question is then whether there is any sound basis to classify clauses.

We have already introduced the means to define clause types while keeping Huddleston's observation: « what they [sentences belonging to the same clause type] have in common is much more a matter of meaning than of syntax ». This means, alluded to by Gazdar, has been fully developed by Ginzburg & Sag (2000) thanks to a richer ontology for Semantics.

Ginzburg & Sag propose that clause types are identified by a type of semantic content and that they may feature several types of syntactic construals, hence their semantic unity and their syntactic diversity. We take up Ginzburg & Sag's approach in which clause types inherit their defining features (under the guise of constraints) from two inheritance trees: the former passes on semantic features (CLAUSALITY) and the latter combinatorial features linked to

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[9] The questioning or directive use of interrogatives was illustrated in (13) above. The assertoric use, known as rhetorical questions, is illustrated in (i) below :

(i)   A. Chirac est-il un modèle de vertu ?   *Is Chirac a paragon of virtue?*
            B. J'ai jamais dit ça.   *I never said that.*

grammatical functions (HEADEDNESS). Thus, clause types abide simultaneously by two types of constraints, i. e. syntactic and semantic; they are essentially form-meaning associations, viz. constructions.

2.1. Dimensions of classification

In the dimension HEADEDNESS, syntactic types of combination are defined, giving rise to types of phrases: (i) phrases may have a head or not, (ii) when they are headed, they may have daughters of distinct kind. In HPSG, the kinds of daughters correspond to grammatical roles, including grammatical functions. We only consider here the subtree that is relevant for our purpose: it describes phrases with a head. There are two main subtypes:

- phrases whose daughters are identified by a grammatical functions with respect to the head (subject (subj), complement (comp), specifier (spr), adjunct (adj)): all are subtypes of the *hd-nexus-ph* type. Moreover, we admit that clauses may be headed either by a verb or by a complementizer.

- phrases which combine a daughter with a gap and a daughter which discharge this gap (a filler): *hd-filler-ph*.

HEADEDNESS

|

hd-ph

nexus-ph

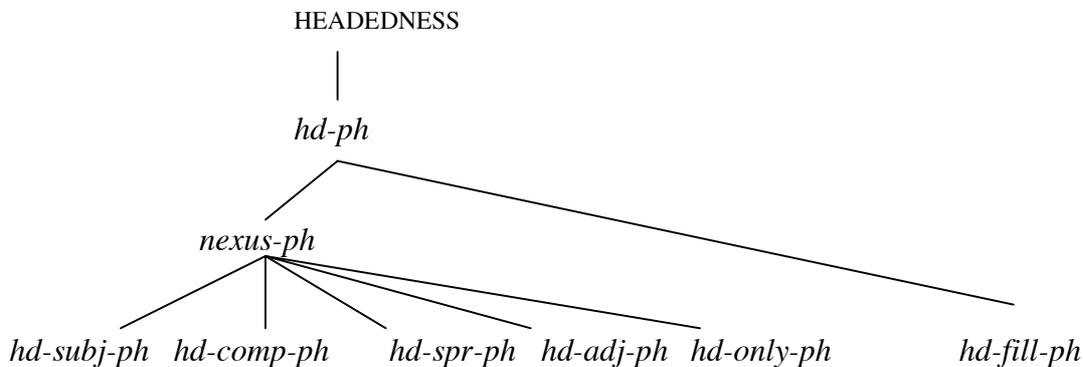*hd-subj-ph*   *hd-comp-ph*   *hd-spr-ph*   *hd-adj-ph*   *hd-only-ph*   *hd-fill-ph*

Fig. 1

On the other hand, the dimension CLAUSALITY specifies semantic constraints on clauses. Here again, we only consider the subtree in which core clauses are defined.[10] There are four subtypes of clauses identified by a type of content. Here, the ontology we introduced above is crucially put to use. The constraints below capture the unity of each clause type.

(15)   a. *decl-cl* ⟹ [CONT *Proposition*]
       b. *inter-cl* ⟹ [CONT *Question (= propositional abstrat)*]
       c. *imp-cl* ⟹ [CONT *Outcome*]
       d. *excl-cl* ⟹ [CONT *Fact*]

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[10] Core clauses may be used either as independent clause or main clause or complement clause. They are distinguished from clauses used as modifiers (e.g. relative clauses). In this section, we restrict the presentation to core clauses used as independent clauses since they suffice to make the point we are discussing. In Ginzburg & Sag parlance, they are [IC +] (ibid.: 45). This section is based on collaborative work on the classification of clauses in French Grammar with Anne Abeillé and Danièle Godard.
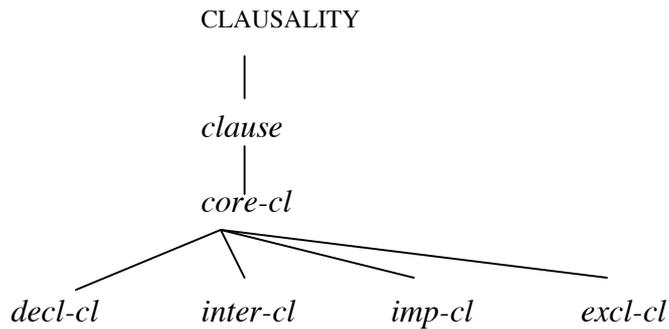
Fig. 2

Heads of core clauses are either verbs or complementizers. Verbal heads should be either finite or in the infinifive (ibid.: 24, 41).

Types of sentences inherit constraints in both dimensions. For example, the prototypical declarative sentence (e.g. *Mary loves Paul*) is a subtype of declarative clause and a subtype of headed phrase, a sentence whose content is a proposition and which is made up of two constituents: a verbal head and an XP subject.
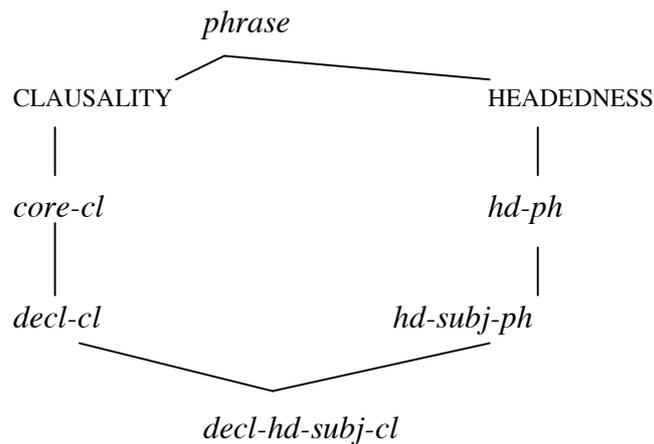

Fig. 3

2.2. Sentence types

In this section, we present a sample of types of sentences that are instances of the four clause types and that are used as independent clauses. This sample is large enough to enable us to give substance to our revisiting the LFH. From now, we use French as our domain of study.[11]

2.2.1. Types of declarative sentences

Types of declarative sentences are subtypes of the *decl-cl* type (in the CLAUSALITY hierarchy); as such, their content is of type Proposition (cf. (15a)). Simultaneously, they are subtypes of the *hd-nexus-ph* type in the HEADEDNESS dimension whose head is a verb. We get the types illustrated in (16):

(16)   a. *decl-hd-subj-cl* based on *hd-subj-ph* (e.g. Marie arrive)
       b. *decl-hd-comp-cl* based on *hd-comp-ph* (e.g. elle a lu le livre)

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[11] We refer the reader to Ginzburg and Sag (2000) for English declaratives and interrogatives.

c. *decl-hd-adj-cl* based on *hd-adj-ph* (e.g. elle arrive vite)
d. *decl-hd-only-cl* based on *hd-only-ph* (e.g. elle arrive)[12]

All these subtypes inherit the constraint on core clauses that requires the feature VFORM on the Verb to be of type *clausal*, viz. *finite* or *infinitive*. One should further restrict the finite value of VFORM to be indicative. As to the value *infinitive*, it is restricted to sentences with a canonical subject (hence: *decl-hd-subj-ph*), which yields a somewhat literary construction with specific discourse felicity conditions:

(17)   a. (Et) grenouilles de sauter dans les ondes.
       (and) frogs DE jump into the water
       (And) frogs jumped into the water
       b. * De sauter dans les ondes.

2.2.2. Types of interrogative sentences

The family of interrogative sentence types is semantically homogeneous (they denote a Question, see (15b)) and, syntactically, strikingly diverse. It shows all subtypes of *headed-ph*: types involving the head-filler phrase and types involving a verb or a complementizer as a head.

(18)   a. *inter-hd-fill-cl* based on *hd-filler-ph* (e.g. qui Paul a rencontré hier soir ?)
       b. *inter-hd-nexus-cl* based on *hd-nexus-ph*

The subtypes based on *hd-fill-ph* should be further constrained: not all *wh*-expressions are licensed in the interrogative type.[13] Here we assume a descriptive classification of *wh*-expressions that we express via a feature [Interrogative +/-]. These sentence types correspond to Huddelston's variable interrogatives.

Among *hd-nexus-ph* based types, there are again two types, which yields Huddelston's closed interrogatives. The former is defined as in (19):

(19)   a. Types whose head is a verb (e.g. Marie arrive-t-elle ?)
       b. Further constraint : the verb should be marked with an inverted clitic-subject ([INV-CL-SU: +]).

The latter as in (20):

(20)   a. Types whose head is a complementizer : *inter-cp-cl* (e.g. est-ce que Marie arrive ?)

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[12] French clitics are treated as verbal affixes (Miller & Sag (1997)).
[13] For example: *comment* or *quel* are grammatical in interrogatives only:
(i)   a. Comment est-il ?
          How is he?
       b. * Intelligent, comment il est (*vs* Intelligent comme il est)
          intelligent, COMMENT he is (*vs* Intelligent COMME he is)
          Intelligent as he is, ...
(ii)   a. Quel est-il ?
          What is he?
       b. * Il est tel quel tu l'imagines (*vs* Il est tel que tu l'imagines)
          he is TEL QUEL you imagine him (*vs* he is TEL QUE you imagine him)
          He is as you imagine him to be.

b. Only two complementizers are legitimate in the interrogative type: *est-ce-que* and *si*.

Notice that *inter-cp-cl* is necessarily marked with [INV-CL-SU: -] in standard French.

(21)   a. * Vient ? / Vient-elle?
          comes / comes-she~CL-SUBJECT~
          Is she coming?
       b. * Est-ce que Marie vient-elle ? (vs : Est-ce-que Marie vient ?)
          EST-CE QUE Marie comes-she~CL-SUBJECT~
          Is Marie coming?

In this perspective, so-called declarative questions (or intonation questions) such as *Marie vient ?* are not interrogative sentences. We come back to them in section 4.2.

2.2.3. Types of imperative sentences
The family of imperative sentences denotes an Outcome (see (15c)) and, syntactically, is less diverse. It comprises two subtypes. The former is defined as in (22):

(22)   a. *imp-hd-only-cl* based on *hd-only-ph* (e.g. ne fume pas, ne pas fumer),
       a'. *imp-hd-adj-cl* based on *hd-adj-ph* (e.g. ne fume pas compulsivement, ne pas fumer régulièrement),
       a''. *imp-hd-comp-cl* is based on *hd-comp-ph* (e.g. ne fume pas de cigares, ne pas fumer le cigare).
       b. Further constraint: the value of VFORM should be *imperative* or *infinitive*.

The latter as in (23):

(23)   a. *imp-hd-comp-cl* based on *hd-comp-ph* whose head is a complementizer (e.g. que Pierre fasse la vaiselle).
       b. Further constraint: the complementizer should be *que* and selects for a complement clause in the subjunctive.

2.2.4. Types of exclamative sentences
Exclamations are noteworthily diverse. Moreover, the descriptive term *exclamation* covers (i) utterances that give rise to an intensive judgment (usually associated with an emphatic prosody whose realization is quite unconstrained (cf Rossi (1999)) and (ii) utterances which are analyzable as instances of a specific exclamative clause type. The former case is illustrated in (24): (24a) may convey a question or an exclamation involving an intensive meaning, (24b) may convey an assertion or an exclamation involving an intensive meaning.

(24)   a. Est-il bête
          is-he stupid
          How stupid he is! or *Is he stupid?*
       b. Il est vachement bête
          He is really stupid! or *He is really stupid.*

The latter is illustrated in (25): utterances in (25) can only be interpreted as an exclamation.

(25)   a. Qu'il est bête !

COMP he is stupid
How stupid he is!
b. Il est si bête !
He is so stupid!

As a working hypothesis, we keep these two cases apart. Here, we will not account for the exclamation or exclamation-like interpretation of utterances such as (24) above.

The exclamative type is no different from other core types: it shows no specific syntactic construal.[14] Thus, its unity can only be defined semantically. There is a convergence between Milner's (1978) descriptive approach and Ginzburg & Sag's formal treatment of the semantics of exclamatives. According to Milner, the meaning of exclamatives may be described as follows:
(i) their content involves a degree or quantity judgement that Milner calls « non-classifiant » (non-classifying), i. e. a degree or quantity beyond the end-points of degree or quantify scales.
(ii) the judgment is not presented as being objective, but rather as Speaker's opinion.
These two generalizations are in keeping with Ginzburg & Sag's proposal: the content of exclamatives is not a proposition (likely to be true or false), rather it is a fact (see (15d) above). Moreover, it involves a specific quantification they call *unusual-rel* (ibid.: 225).[15] For example, *How tall Kim is!* conveys the fact that Kim is tall to an unusual degree. Hence, the exclamative type should be further constrained:

(26)   *excl-cl* $\Rightarrow$ [QUANTS *<unusual-rel>*]

There are two main subtypes of exclamative sentences.[16] The former involves a *wh*-word and the latter crucially requires an exclamatory lexical trigger. The subtype based on *hd-fill-ph* type necessarily involves a *wh*-word which is an adjunct in an AP, AdvP or VP and a degree modifier. Interestingly, *wh* degree modifiers of adjectives or adverbs (*que, comme*) only occur in exclamatives in French:

(27)   a. Comme il est beau ! / Qu'il est beau !
           COMME$_{WH}$ he is handsome / QUE$_{WH}$ he is handsome
           How handsome he is!
        b. * Comme est-il beau !/ * Qu'est-il beau !
           COMME is he handsome / QUE is he handsome

The *wh*-items *quel* and *combien* are either interrogative or exclamative; they give rise to ambiguous utterances, as those in (28) below.

(28)   a. Quelle idée il a
           QUELLE idea he has
           What an idea he has! or *What's his idea?*
        b. Combien de problèmes a-t-il rencontrés
           COMBIEN DE problems has he met with
           How many problems he had! or *How many problems did he have?*

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[14] Moreover, its lexical markers are often ambiguous.
[15] « *Unusual-rel* is a generalized quantifier, which holds of a fact-abstract and a SOA-abstract. *Unusual-rel* is existential in nature » (ibid. : 226).
[16] To be exhaustive here would take us too far from our main subject.

The exclamatory lexical triggers are diverse: the comparative item (*aussi*), the correlative items (*si, tant, tellement*) used absolutely (i. e. without the correlative *que*-S) (cf. (29)) or the degree modifier *d'un* (cf. (30)).

(29) a. Il est si beau ! a'. Il est tellement beau !
       He is so handsome!
      b. Il travaille tellement !, b'. Il travaille tant !
       He works so much!
      c. Il a tant de défauts ! c'. Il a tellement de défauts !
       He has so many failings!

(30) Il est d'un intelligent !
      he is D'UN intelligent
      How intelligent he is!

Arguably, exclamatory triggers only occur in sentences based on *hd-nexus-ph* types as is shown in (31). In (31b-d), *si* is interpreted as conveying an implicit comparison ('Est-il si lâche que ça / qu'on le dit' [is he as cowardly as that / as cowardly as he is said to be]).

(31) a. Il est si lâche !
        he is so cowardly
        He is such a coward!
      b. * Est-il si lâche
          is-he so cowardly
      c. * Pourquoi donc est-il si lâche
          why thus is-he so cowardly
      d. * Arrête d'être si lâche
          stop being so cowardly

Thus, the two main subtypes of exclamatives are:

(32)   a. *excl-hd-fill-cl* based on *hd-fill-ph*, where the *wh*-word is exclamative (e.g. comme il est beau)
        b. *excl-hd-nexus-cl* based *on hd-nexus-ph* in which an exclamatory trigger occurs (e.g. il est si beau).[17]

2.5. To sum up
We conclude that it is possible to define clause types and account for their syntactic diversity independently of their illocutionary potential. Table 1 summarizes the types of independent sentences that are instances of the four clause types inherited from the grammatical tradition and pragmatics studies.

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[17] Here, we do not analyze exclamative triggers. Analoguously to *wh*-in situ words (see section 4.2), they involve a non-local feature.

Clause type [IC +]	Semantic content	Main sub-types: (short description)
Declarative	Proposition	- *hd-nexus-ph* & V in the indicative: *Mary aime Paul*
		- *hd-subj-ph* & V in the infinitive: *Et Marie de se mettre à crier*
Interrogative	Question (=propositional abstract)	- Fronted *wh*-expression (*head-filler*) & *wh* is interrogative: *Où va Marie* (*où Marie va-t-elle, où Marie va*)
		- *hd-nexus-ph* & Head is a Verb V & inverted cl-subject *Marie part-elle*
		- *hd-comp-ph* & Head is a Complementizer & Complementizer is interrogative (= *est-ce que, si*): *Est-ce que Marie est arrivée*
Imperative	Outcome	- *nexus-ph* (except: *hd-subj-ph*) & Head is a verb in the imperative or in the infinitive: *Ne fume pas, ne pas fumer*
		- *hd-comp-ph* & Head is a complementizer whose complement sentence is in the subjunctive (= *que*): *Qu'il vienne me voir*
Exclamative	Exclamatory proposition	- Fronted *wh*-expression (*Head-filler*) & *wh* is exclamative: *Comme il est beau, qu'il pleut*
		- *hd-nexus -ph* & exclamatory triggers: *Il est si beau, il travaille tant*

TABLE 1

3. From Illocutionary Forces to Conversational Moves

We come back to the analysis of illocutionary forces (IF). What are they? To answer this question, we take a dialogical perspective. There are several reasons for such a choice. First, illocutionary forces have a double import, the former pertains to Speaker and the latter to Addressee. In pragmatic analyses, this is often expressed in terms of Speaker's attitude (belief, ignorance, desire, etc) on the one hand and sorts of obligation exerted on Addressee on the other hand. From this perspective, one cannot analyze illocution outside the interaction between dialogue participants (DPs). Secondly, too many difficulties plague the modal definition of the aspect of illocutionary forces related to Speaker. Thus, we propose to give substance to another insight of Gazdar's paper which has been systematically developed in Ginzburg's Grammar for interaction: illocutionary forces can be analyzed as conversational moves. This is the route we follow in this section. First, we only consider the Speaker-oriented aspect of IFs in sections 3.1 and 3.2. Then we introduce the Addressee-oriented aspect of IFs in sections 3.3 and 3.4. Finally, we consider exclamations in sections 3.5 and 3.6; we analyze them as moves that do not convey any call on Addressee for him to perform an uptake bringing forward the interaction.

3.1. Speaker's commitment
Gazdar proposes a dynamic approach to speech acts. According to him, "an assertion that Φ is a function that changes a context in which the speaker is not committed to justifiable true

belief in Φ into a context he is so committed. A promise that Φ is a function that changes a context in which the speaker is not committed to bringing Φ into one in which he is so committed. A permission to Φ is a function that changes a context in which Φ is prohibited into one in which Φ is permisible" (Gazdar, 1981: 69). We stick to the idea that speech acts are particular instances of IFs and, thus, we restrict ourselves to the four IFs that we assume here following Zaefferer (2001). The notion of commitment was restricted to commitment to propositions in Hamblin (1971). Gazdar extends it. We make such an extension explicit. There are four types of commitment which correspond to the four IFs: commitment to a Proposition, a Question, an Outcome and a Fact. We leave commitments to Facts aside until section 3.5.

When Speaker utters an assertion, i. e. makes a statement, she makes a move by which she becomes committed to a propositional content. By saying that Mary has arrived, Speaker presents herself as ready to stand for the truth of the proposition that Mary has arrived. This is a matter of public presentation which does not necessarily correspond to Speaker's private belief.

Now, we extend the notion in order to cater for the two other forces. When Speaker utters a question, she makes a move by which she becomes committed to an issue. By asking whether Mary has arrived, Speaker presents herself as being interested for current purposes in the issue whether Mary has arrived. Once again this is a matter of public presentation and does not correspond to one specific knowledge state.[18] When Speaker utters a directive utterance, she makes a move by which she becomes committed to an outcome. Outcomes correspond to states of affair in the future, actualization of which more or less directly depends on Addressee. Her commitment consists in « the affirmative stance towards the actualization of this potential » (Stefanowitsch, 2003: 2). By ordering Mary to arrive, Speaker presents herself as positively oriented to the realization of Mary's arrival.

3.2. Commitment as a dialogue move
Ginzburg's grammar for interaction relies on the idea that dialogue can be conceived as a game. Each turn brings about a change in the on-going dialogue: the type and content of each change are registered in a dialogue gameboard (DGB). Each dialogue participant keeps her own DGB; the dynamics of dialogue making is reflected in the updates of DGBs that DPs operate at each turn.

Ginzburg's definition of the publicized part of DGB (33) reflects his more general conception of dialogue.

$$(33) \qquad \left[\text{DGB} \begin{array}{l} \text{FACTS} \\ \text{QUD} \\ [\text{LATEST -MOVE}] \end{array} \right]$$

He gives much importance to the slot QUESTION UNDER DISCUSSION (QUD) as he assumes that the mechanics of the question-response pair lies at the core of dialogue interaction. The slot labeled FACTS is indeed close to the notion of Common Ground proposed by Stalnaker as he assumes that dialogue can be modeled as a cooperative process aiming at the extension of the

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[18] Hence the use of questions as genuine queries, topic-openers in everyday conversations, rhetorical questions or exam questions, which corresponds to completely different Speaker's knowledge states.

common ground shared by the DPs. We do not keep these two stances and reinterpret the DGB so that we can use it to make explicit our analysis of IFs into dialogue moves.

We propose that the dimensions in the publicized part of the DGB correspond to commitment slates. Hence, we propose three components:

(34)
$$\left[\text{DGB} \left[\begin{array}{l} \text{SHARED GROUND} \\ \text{QUD} \\ \text{TO-DO-LIST} \left[\begin{array}{l} [\text{SP}] \\ [\text{ADD(i)}] \end{array} \right] \end{array} \right] \right]$$

SHARED GROUND (SG) is a partially ordered set of Propositions whose last element is distinguished so that it can be removed easily. A Proposition is removed from SG by Speaker when it is rejected by Addressee; it stays there when it is not rejected (Stalnaker (1978)). Thus, only propositions that have been accepted by both parties sit on SG.

We keep the formal definition of QUD unchanged: QUD is a partially ordered set of Questions. The ordering on QUD roughly corresponds to the conversational precedence, but it also allows one to account for the distinction between questions and sub-questions. The last Question also is distinguished (max-Qud). QUD has two functions in Ginzburg's modelization. It registers the questions under discussion and, more generally, it is at the core of the interactive process triggered by questions and assertions. QUD is incremented both by questions and by assertions. In this last case, it is incremented with the polar question that can be abstracted from the propositional content in order to capture the fact that an assertion goes through only when it is not rejected by Addressee.[19] We part with Ginzburg here. We keep QUD to questions and propose another mechanism and another slot in the DGB to capture the interactive dynamics (see §3.4).

In order to account for Outcomes conveyed by imperative sentences, we add a specific slot TO-DO-LIST (TDL) in the DGB.[20] TDL is partitionned into TDL(Speaker) and TDL(Addressee). TDL(Addressee) is an ordered list of descriptions of situations the actualization of which depends on Addressee and towards which Speaker is positively oriented. It is incremented with the outcomes that Speaker presents as actualizable by Addressee. TDL(Speaker) is incremented with the outcomes that Speaker presents as actualizable by herself: either the outcomes brought about by imperative utterances of interlocutors or those brought about by promissives.[21]

To sum up, we have distinguished three dimensions in the DGB, each of them consisting in a homogeneous set (a set of propositions, a set of questions, or a set of outcomes). Uttering an assertion brings about the incrementation of SG, uttering a question the incrementation of QUD and, finally, uttering a directive utterance the incrementation of TDL(Addressee).

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[19] In other words, Ginzburg equates accepting an assertion with answering a polar question. Notice that, although Ginzburg uses QUD to account for the fact that assertions can be accepted or rejected, he does not account in a similar fashion for the fact that a question can be resolved or unresolved.

[20] We follow here a proposal made by Portner (2005).

[21] TO-DO-LIST(Speaker) is also involved in the analysis of wishes (such as *Que le meilleur gagne* [Let the better win!] or *Que Dieu écoute ma prière* [Let God listen to my prayer!]): outcomes toward which Speaker is positively oriented but the realization of which does not depend on Speaker's interlocutors.

3.3. Speaker's call on Addressee

Pragmaticians have recognized that IFs have an Addressee-oriented aspect. In particular, they touch upon the Addressee-oriented aspects of IFs when they discuss the felicity of the various speech acts that are instances of IFs.

Following Stalnaker (1978), a speech act is felicitous, i. e. comes through, when it corresponds to a pair of turns such that there is no difference between Speaker's commitment and what Speaker calls on Addressee to become committed to by an appropriate uptake of her utterance. For example, a statement is reputed felicitous if both Speaker and Addressee are committed to the proposition conveyed by the utterance at the end of the interaction. This involves that Speaker calls on Addressee for him to become committed to the Proposition Speaker is committed to. In this case, the content of Speaker's commitment is identical to the content of the commitment Speaker calls on Addressee to endorse.

Speaker's commitment and call on Addressee need not be identical. There are moves where Speaker's commitment and Speaker's call on Addressee do not have the same type, and therefore content. Grammar provides Speaker with means to signal the discrepancy. They come in two main guises: (i) lexico-syntactic constructions and (ii) tags of various categories.

The prototypical examples of constructions which specify a specific call on Addressee are whimperatives, such as (13b) above in English. Here, we give two whimperative constructions in French. Closed interrogatives with *vouloir*, inverted Clitic-subject + *bien* + V (35a) signal that they should be treated as an order (with a nuance of condescension); *wh*-interrogatives with *pourquoi* + *pas* + V in the infinitive should be treated as an suggestion (another kind of directive).

(35)   a. Veux-tu bien te taire !
            Would you be quiet!
        b. Pourquoi pas acheter une voiture ?
            Why not buy a car
             What about buying a car?

There are many tags which specify the call on Addressee (see below section 4.2). For example, *n'est-ce pas* used with a declarative sentence such as (36) conveys a call on Addressee for him to commit himself to the issue whether Marie has arrived.

(36)   Marie est arrivée, n'est-ce pas ?
        Marie has arrived, hasn't she?

Moreover, it follows from the analysis at hand that there are only three types of call on Addressee. Speaker may ask Addressee to take up her utterance as an assertion, as a question or as a directive. This corresponds to the fact that we assume three types of commitment.

3.4. Call on Addressee as a dialogue move

As we have already mentionned, Ginzburg considers the question-response pair as the prototype mechanism of how dialogue interaction works. For example, he models Speaker's call on Addressee that is specific to assertion as a call for updating QUD with a polar question (derived for the proposition conveyed in the declarative). This solution faces several drawbacks. First, it predicts, contrary to facts, that statements and demands for confirmation

should trigger the same set of uptakes (see Beyssade & Marandin (2005)). Secondly, it is hard to see how to use such a pair to model the working of directive moves or directive aspects of moves. More generally, it is restricted to the epistemic working of dialogue (the building of a knowledge state shared by both DPs). Finally, from our perspective, it would prevent us from capturing the different types of call on Addressee.

This is the reason why we add in Speaker's DGB a slot which registers the specific call on addressee performed by Speaker.

$$(37) \quad \left[\text{DGB} \begin{bmatrix} \text{SG} \\ \text{QUD} \\ \text{TDL} \\ \text{CALL - ON - ADDRESSEE} \end{bmatrix} \right]$$

For example, by uttering (36), Speaker signals that she calls on Addressee for him to commit himself to the issue whether Marie has arrived. The move (36) brings the change in Speaker's DGB described as the update of her call on addressee with a polar question.

(38)   CALL-ON-ADDRESSEE   *Marie est-elle arrivée ?*

CALL-ON-ADDRESSEE registers the type and content of Speaker's call on Addressee. Like LATEST MOVE - and contrarily to SG and QUD, which are structured sets - CALL-ON-ADDRESSEE contains one and only one element which is updated utterance by utterance.[22] In the present proposal, it plays the interactive part that was carried out by QUD in Ginzburg's architecture. The main thrust of our proposal is that it provides a general mechanism to deal with the Addressee-oriented aspects of utterances of any illocutionary force. Moreover, it enables one to account for utterances which are analyzed in the literature as a combination of several forces, e.g. demands for confirmation, whimperatives, etc. All illocutionary types of utterance so far considered give rise to two updates of Speaker's DGB contents of which are either identical or distinct.[23]

3.5. Speaker-only commitment

The move types we have considered so far are interactional: Addressee is called on for performing an appropriate uptake in response to the move. Moreover, the whole content conveyed by the utterance feeds the call on Addressee.

It has been observed that part of the content of an utterance can be excluded from the call on Addressee. This is the case, for instance, with the content conveyed by incidental evaluative adverbs. The content that it is unhappy that Paul has already gone in (39) does not enter the content Speaker calls on Addressee to share.

(39)   Paul est malheureusement déjà parti.
        Paul has unfortunately already gone
        Unfortunately, Paul has already gone

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[22] Both are crucially involved in the working of clarification moves, in particular, in reprise questions (see § 4.2.3 below).

[23] The present proposal is reminiscent of Ginzburg's analysis of assertions which he analyzes as involving the incrementation of both FACTS and QUD. It shares the same type of insight than Asher and Reese (2004) who introduce a complex type (Question ⊗ Assertion) to account for biased polar questions. The core of the proposal is that all assertions, questions or directives involve two updates. In this respect, it is a generalization of these proposals.

Bonami & Godard (2005, to app.) propose to analyze such contents as Speaker-only commitment. They propose to analyse it as an ancillary Speaker's commitment which, contrary to the main commitment conveyed by the utterance, has not to be shared by Addressee.[24] The evaluative judgement commits Speaker and only Speaker. This explains, for example, why it would be odd to deny it via a statement uptake.

(40)   A : Paul is unfortunately already gone.
        B :   a. # No, I think it is very good news.
                b. Yes, but I think it is very good news.

Strikingly, this is how exclamations work: Speaker commits herself to a content, but she does not ask Addressee to commit himself to such a content. Indeed, there may be a demand on Addressee, which is, as Milner puts it, to witness Speaker's opinion: « Affirmative exclamatives leave Addressee in a position of *passive observer* whom Speaker let know about her opinion » (Milner, 1978: 347 ; we translate and underline).[25]

3.6. Speaker's only commitment as a dialogue move

We propose to recast the DGB as in (41). Two dimensions of commitment are distinguished: INTERACTIVE COMMITMENT and SPEAKER'S ONLY COMMITMENT. INTERACTIVE COMMITMENT registers the contents that Speaker submits to Addressee, whereas SPEAKER-ONLY COMMITMENT registers the contents that Speaker presents as her own opinion.

$$(41) \quad \begin{bmatrix} \text{DGB} \begin{bmatrix} \text{INTERACTIVE - CMT} \begin{bmatrix} \text{SG} \\ \text{QUD} \\ \text{TDL} \end{bmatrix} \\ \text{SPEAKER -ONLY - CMT} \\ \text{CALL - ON - ADDR} \\ \text{LATEST -MOVE} \end{bmatrix} \end{bmatrix}$$

SPEAKER-ONLY COMMITMENT is crucial for the analysis of exclamative utterances. By uttering an exclamative clause, the speaker doesn't call on Addressee to become committed to the evaluation conveyed by the sentence. It is intended as expressing Speaker's own opinion and Addressee is only involved as a witness of such an opinion.[26]

Consequently, contrarily to other conversational move types, the conversation move triggered by an exclamative clause does not require any commitment of Addressee, it does not give rise to an update of CALL-ON-ADDRESSEE.

4. Clause Types and Dialogue Move Types

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[24] Beyssade & Marandin (2005) propose a similar hypothesis to analyse the meaning of a set of intonation contours.

[25] Milner notices that negation in exclamatives (e. g. Si c'est pas mignon, ça ! *vs* Si c'est mignon, ça ! [How cute it is!]) does not reverse the polarity, rather it has the effect of reinforcing the call on Addressee to witness Speaker's opinion (ibid.).

[26] This is why denying an exclamation is as odd as denying an evaluation conveyed by incidental adverbs (see (40) above):

(i)   A: Comme il est intelligent   *How intelligent he is!*
         B : # C'est pas vrai !   *It is not true.*

We are now in a position to revisit the relation between clause types and the update operations into which we have analyzed illocutionary forces. Here, the divide between Speaker's commitment and Speaker's call on Addressee turns out to be crucial. We claim that there is a division of labor: clause type contributes information pertaining to Speaker's commitment, whereas other aspects of the utterances may contribute specifications of the call on Addressee. In section 4.1, we present the claims and in section 4.2, the empirical underpinning.

4.1. Clause types, Speaker's commitment and Speaker's call on addressee
Clause types are a source of information relative to the commitment of Speaker. First, we consider the declarative, interrogative and imperative types only. Clause types are in a one-to-one relationship with a type of update in the INTERACTIVE-CMT dimensions of Speaker's DGB. Such an update makes Speaker committed to the move and the content conveyed in her utterance. This is made explicit in table 2.

Clause types	Speaker's update		Commitment to
Declarative	Add a proposition	in SG	a proposition
Interrogative	Add a propositional abstract	in QUD	an issue
Imperative	Add an outcome	in TDL	the actualization of a future situation

TABLE 2

On the other hand, clause types do not determine a specific call on Addressee. By default, Speaker's call on Addressee is identical to Speaker's commitment. But, each clause type is compatible with any of the two other types of call. For example, declarative utterances commit Speaker to their content and are compatible with three types of call on Addressee. When Speaker calls for Addressee to take her utterance as an assertion, Addressee is expected to add the propositional content to his own SG, which corresponds to felicitous statements. When she asks him to take her utterance as a question, Addressee is expected to add a Question to his own QUD, which corresponds to demands for confirmation. When she asks him to take her utterance as a directive, Addressee is expected to add an outcome to his own TDL. Table 3 gives the combinations for each clause type in terms of dialogue updates.[27]

Grammar provides speakers with lexical or phrasal means to signal the lack of symmetry and the intended call. For example, take the declarative type and lexical tags again: *tiens* signals an assertoric call, *n'est-ce pas* a questioning one and *s'il te plaît* a directive one.

(42)   a. Tiens, tu te tais.
            Hey, you are quiet.
        b. Tu te tais, n'est-ce pas ?
            You are quiet, aren't you?
        c. Tu te tais, s'il te plait !

---

[27] Given a proposition p, we use the following convention: ?p represents the polar question associated to p, and !p represents the outcome built from p, i. e. p will be true in the situation in which the outcome !p is fullfilled. For instance, if p corresponds to the sentence 'John is beautiful', then ?p correspond to 'Is John beautiful?', and !p to 'Be beautiful, John!'. In this table, q' corresponds to the proposition which resolves q, and o' to the proposition which fullfills o.
Be careful when reading the colum 'Addressee-oriented impact': in the formula Update (Add, TDL_A, x), the index A corefers with Addressee, which means that the Addressee updates his own DGB by adding an outcome in his own TO-DO-LIST ($TDL_{Speaker}$).

You are quiet, please!

Clause type	Semantic content type	Conversation move types	
		Speaker-oriented Impact	Addressee-oriented impact
Declarative	Proposition p	Update (S, SG, p)	*Default:* Update (A, SG,p)
			Update (A, QUD,? p)
			Update (Add, TDL$_A$, !p)
Interrogative	Propositional Abstract q	Update (S, QUD, q)	*Default:* Update (Add, QUD,q)
			Update (Add, SG,q')
			Update (Add, TDL$_A$,!q')
Imperative	Outcome o	Update (S, TDL$_A$,o)	*Default:* Update (Add, TDL$_A$,o)
			Update (Add, SG,o')
			Update (Add, QUD,?o')

TABLE 3

Now, we consider the exclamative type. As other types, it commits Speaker to the Fact conveyed by the sentence. Since it is not associated with a call on Addressee, the exclamative type is associated with only one update, viz. an update of the SPEAKER'S ONLY COMMITMENT slot.[28]

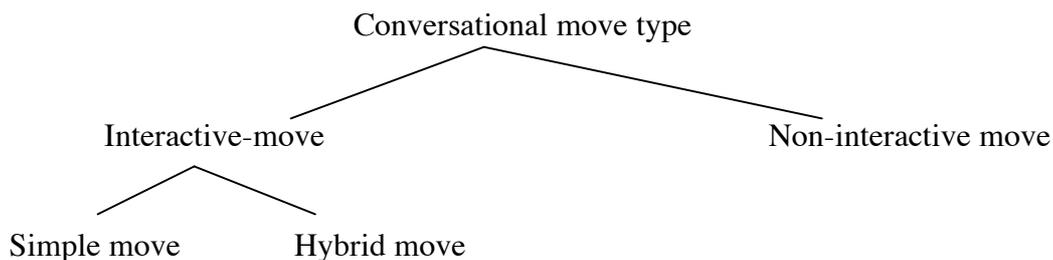| Clause type	Semantic content type	Conversation move types	
		Speaker-oriented Impact	Addressee-oriented impact
Exclamative	Quantified fact e	Update (S, SP-only-CMT, e)	Ø

TABLE 4

As tables 3 and 4 show, distinguishing Speaker's commitment from Speaker's call on Addressee does not result in untractable diversity of moves. Exclamatives give rise to a type of move characterized by a single update, whereas the other types give rise to moves that conjoin two updates, which fuel the interaction.[29] These interactive moves are either simple (the same content is added to INTERACTIVE-CMT and CALL ON ADDRESSEE) or hybrid (the content added to INTERACTIVE-CMT is different from the content added to CALL ON ADDRESSEE). This is summarized in figure (43) below.

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[28] In table 3, e represents a fact.

[29] We remind the reader that we have postponed the analysis of exclamations such as (24) above. Their analysis either as simple moves (i.e. as utterances belonging to the exclamative type) or hybrid move is still open.

(43)

```
                         Conversational move type
                          /                    \
              Interactive-move              Non-interactive move
                /        \
        Simple move    Hybrid move
```

4.2. Empirical underpinning

Our proposal provides a framework to account for a number of facts or observations that are scattered in the pragmatic literature, in particular in the discussions of the theory of indirect speech acts.

4.2.1. Commitment marking

The claim that clause type marks Speaker's commitment enables one to explain several pragmatic contrasts in context. We briefly take four of them below.

It has been observed that directives conveyed by interrogative clauses (44a) do not have the same impact in context as directives conveyed by imperative clauses (44b). The use of interrogative clauses is reputed more polite than that of imperatives.

(44)   a. Pouvez-vous fermer la porte, s'il vous plait ?
          Can you close the door, please?
        b. Fermez la porte, s'il vous plait !
          Close the door, please!

Then, the question is what makes utterances such as (44a) more polite. From our perspective, it follows from a difference in Speaker's commitment with respect to the closing of the door. In (44a), Speaker is committed to the issue whether Addressee can close the door, whereas in (44b) Speaker is committed to the outcome that the door should be closed. In (44a), she presents herself as interested in the closing of the door, whereas in (44b) she takes an affirmative stance towards its closing. If politeness is linked to a mitigation of the power relation between agents, Speaker's request of closing the door is less insistent when conveyed via an interrogative clause.

The same sort of mitigation effect sheds light on the contrast between directives conveyed by imperatives (45a) or by declaratives (45b). As it has been often observed, utterances in the imperative are open to a large gamut of speech acts ranging from orders, requests, to pleas or suggestions. On the other hand, declarative utterances are more restricted: they convey orders or requests and hardly pleas or suggestions.

(45)   a. Viens demain, s'il te plait !
          Come tomorrow, please!
        b. Tu viendras demain, s'il te plait !
          You come$_{FUTUR}$ tomorrow, please

Such a contrast again follows from a difference in Speaker's commitment. By using the imperative, Speaker only commits herself to judging positively the realization of a potential

state of affairs, without committing herself to the probability of that realization; whereas a declarative in the future commits Speaker to the future factuality of the state of affairs.

It has been observed that questions conveyed by declaratives (46a) are not felicitous in the same contexts than those conveyed by interrogatives (46b), (46c). Questioning declaratives are much more natural in situations where Speaker has good grounds to know the answer. For example, in a situation where Speaker, upon entering the department office, sees Mary's personal belongings on her desk, (46b) or (46c) would be odd whereas (46a) would be appropriate as a question to Mary's colleague already at work.

(46)   a. Marie est arrivée, n'est-ce pas ?
            Marie has arrived, hasn't she?
        b. Est-ce que Marie est arrivée?
            Has Marie arrived?
        c. Marie est-elle arrivée ?
            Marie is-SHE$_{\text{CLITIC}}$ arrived
            Has Marie arrived?

By using an interrogative in the situation we have just described, Speaker would present herself as being interested in Mary's arrival and having no cue to resolve the issue, whereas by using a declarative, she signals that she commits herself to the proposition she has arrived and, consequently, she is just seeking confirmation (usually, to open a discussion topic).

Finally, our proposal sheds light on the much discussed difference between utterances featuring a fronted *wh*-expression (47a) and those with *wh*-expressions in situ (47b).

(47)   a. A qui Jean a parlé ?
            To whom did Jean speak?
        b. Jean a parlé à qui ?
            Jean has spoken to whom

According to our syntactic analysis, the former (47a) is an instance of the interrogative type (*inter-hd-filler-cl*) while the latter (47b) is an instance of the declarative type (*decl-hd-subject-cl*). The content of (47b) is a proposition and it always conveys a questioning call on Addressee.[30] Thus, Speaker commits herself to an issue when uttering (47a) while she commits herself to a proposition when uttering (47b), viz. the proposition that Jean spoke to *someone*.[31] Thus, we expect that conditions of use of utterances featuring *wh*-expressions in situ should be similar to those of questioning declaratives. Indeed, utterances like (47b) sounds odd when used in contexts where Speaker do not have grounds to commit herself to the proposition that John spoke to *someone*. Insofar *someone* includes *nobody* as a possible

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[30] In this respect, they are like whimperatives: they non-equivocally specify a call on Addressee. By the way, our analysis may explain why NPIs (such as *moindre* in (i)) are ungrammatical or, at least, odd for many speakers in such utterances.
(i)   a. A qui Jean a-t-il fait le moindre reproche ?
                To whom Jean has he$_{\text{CLITIC}}$ made the slightest reproach
                Who did John blame for anything he did?
            b. ?? Jean a fait le moindre reproche à qui ?
            c. ?? Jean a fait à qui le moindre reproche ?
[31] We analyze *wh*- in situ *à la manière de* Farkas (2002). They are particular indefinites, which impose the variable they introduce to take its value in a set including zero (*noboby, nothing, nowhere...*). In other terms, '*someone*' stands here for an indefinite which is not existential ; rather, its domain of valuation includes nobody.

value, this proposition is underspecified, but not empty. Committing oneself to such a proposition amounts for Speaker to consider the proposition that John spoke to somebody (or to nobody) relevant for the current discourse. This is in keeping with our observation that utterances with *wh* in situ are not used as topic/conversation openers and mostly occur in on-topic talk: the proposition they convey being part of the current Discourse Topic.[32]

4.2.2. Call on Addresse marking
Our proposal gives full grammatical status to lexical items or phrasal constructions that specify Speaker's call on Addressee. In particular, it enables one to state their main properties: (i) the type of clause they are grammatical with and (ii) the type of update they specify.

For example, the tag *sans indiscrétion* is grammatical in two clause types, viz. interrogative and declarative, but specifies only one type of call on Addressee, viz questioning. This is why it sounds odd to take up a turn tagged with *sans indiscrétion* with expressions used for statement uptake (48).

(48)   A.: Sans indiscrétion, Marie est arrivée
              Without indiscretion, Marie has arrived
              Without indiscretion, has Marie arrived
        B.: # Ah bon / je ne le savais pas / ...
              Oh really / I didn't know that / ...

Tags such as *point final, point barre* are also grammatical in two clause types, viz. declarative and imperative (49) - ungrammatical in interrogative sentences (50) – and are underspecified as for the call on Addressee: either asserting or directive.

(49)   a. Marie ne sortira pas, point barre.
              Marie will not go out, POINT BARRE
              Marie won't go out, period!
        b. Ferme ta gueule, point barre !
              Shut-IMP your mouth, POINT BARRE
              Shut up, period!

(50)   # Est-ce que tu vas bientôt fermer ta grande gueule, point barre
              EST-CE QUE you are going soon shut your big mouth, POINT BARRE

Finally, there are tags that are grammatical in only one clause type and comptible with one type of call on Addressee. *N'est-ce pas* belongs to this group: it is grammatical only in declarative clauses and only compatible with a questioning call on Addressee.

(51)   a. Marie est arrivée, n'est-ce pas ?

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[32] A preliminary survey shows that utterances with *wh*-expressions in situ have the same prosody than questioning declaratives with narrow focus (Beyssade et al. (2004)). Thus, (ia) and (ib) below show the same prosodic realization: the final contour is anchored on the right edge of *Bernadette* or *secrétaire*.
(i)   a. Tu as parlé à Bernadette hier soir ?
              You spoke to Bernadette yesterday evening
              Did you speak to Bernadette yesterday evening?
         b. Tu as parlé à quelle secrétaire hier soir ?
              You spoke to which secretary yesterday evening
              To which secretary did you speak yesterday evening?

Marie has arrived, N'EST-CE PAS
   b. * Marie est-elle arrivée, n'est-ce pas ?
      Marie has-she arrived, N'EST-CE PAS
   c. * Est-ce que Marie est arrivée, n'est-ce pas ?
      EST-CE QUE Marie has arrived, N'EST-CE PAS

4.2.3. Reprise phenomena

Ginzburg & Sag (ibid.: 264) draw attention towards reprise phenomena. They observe that the interpretation of the reprise involves the CMT of the utterance that is reprised. For instance, the interpretation of Belula's reprise in (52) cannot involve the speech act conveyed by Stina's declarative, but rather it necessarily involves the illocutionary force associated with it. It cannot be interpreted as 'are you offering a ticket for tonight performance?', but only as 'are you claiming that you have a ticket for tonight performance?'.[33]

(52)   Stina: I have a ticket for tonight performance.
        Belula : You have a ticket for tonight's performance?

The observation should be made more precise. In fact, the reprise is crucially sensitive to the Addressee-oriented aspect of the turn, i. e. the call on addressee. Compare, for example, the reprise of a declarative with an asserting (53a) or a questioning (53b) call on Addressee.

(53)   a. Tiens, Marie est arrivée.
        Hey, Marie has arrived.
      b. Sans indiscrétion, Marie est arrivée?
        Without indiscretion, has Marie arrived?

The form of the reprise is different in the two cases: a reprise of the (53a) is prototypically an utterance with a rising contour (54).[34]

(54)   A. Tiens, Marie est arrivée
       B. Marie est arrivée ↑

Such a reprise would be odd with (53b) and requires a reprise with a utterance belonging to the interrogative clause type (55.Bb).[35]

(55)   A. : Sans indiscrétion, Marie est arrivée ↑
       B. :   a. # Marie est arrivée ↑
            b. si Marie est arrivée ↑ / est-ce que Marie est arivée ↑

In the same way, a declarative with a directive call on Addressee is only felicitously reprised by an utterance in the imperative clause type.

(56)   A. : Tu me rendras mon vélo demain, s'il te plait !
        You me give-back$_{\text{FUTUR}}$ my bike tomorrow, please

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[33] The observation is important, since it supports the idea that particular speech acts can, and should, be distinguished from types of speech acts (i. e. illocutionary forces).
[34] The arrow represents a rising contour.
[35] Notice that the interrogative subtype with inverted subject-clitic is not felicitous as a reprise.
(i)   A.: Sans indiscrétion, Marie est arrivée ?
        B.: # Marie est-elle arrivée ?

Give me back my bicycle tomorrow, please!
B. :   a. # Je te rendrai ton vélo demain ↑
          I give you back your bike tomorrow
      b. Que je te rende ton vélo demain ↑
          QUE_COMP I you.give-back_SUBJ your bike tomorrow
          I should give you back your bike tomorrow.

The contrast is also observed when the call on addressee is specified constructionally. For example, the reprise of an interrogative utterance is different from that of a declarative utterance with a *wh*-expression in situ.

(57)   A. Tu as parlé à qui hier soir ?
            You has spoken to whom yesterday evening
            To whom did you speak yesterday evening?
        B.   i. J'ai parlé à qui ?   ii. A qui j'ai parlé ?
                I spoke to whom   To whom I spoke
                To whom did I speak?

(58)   A.: A qui as-tu parlé hier soir ?
            To whom did you speak yesterday evening
        B.   i. # J'ai parlé à qui ?   ii. A qui j'ai parlé ?

These contrasts provide one of the most clear evidence that call on addressee should be explicitly taken care of in Grammar. Indeed, if one accepts Ginzburg & Sag's stance that illocutionary content should be taken into account for reprise constructions and, more generally, any type of clause constructions, call on Addressee represents the crucial aspect of such a content.

5. Conclusion

What about the LFH? The answer has several aspects. First, there is a one-to-one relationship between Clause Type and Speaker's commitment, i. e. from our dialogical perspective, between Clause Type and a type of update in Speaker's Discourse Gameboard. Secondly, the clause type does not deterministically constrain the call on Addressee. By default, the update that is performed in the CALL ON ADDRESSEE is identical with the update performed in one of the slot of INTERACTIVE COMMITMENT. But, it can be different and Grammar provides means, either lexical or constructional, to specify the type of update required of Addressee. Thirdly, there are a small number of conversational move types available to Speakers. They can be simple and then correspond to the default case: Speaker's commitment and Speaker's call on Addressee are identical. And they can be complex (or hybrid): Speaker's commitment and Speaker's call on Addressee are distinct. Even, simple moves (except for exclamative moves) involve a twofold update.

Let us again take Gazdar's example (10) (repeated below in the French version) to sum up and illustrate the claims we developed in this paper.

(59)   A. : Tu rentreras à la maison demain
            You will go home tomorrow.

Utterance (59) is an instance of declarative clause. It commits Speaker to the proposition that Addressee will go home tomorrow. If the call on Addressee is left unspecified, it calls for Addressee to commit himself to the same proposition. But, Speaker may specify a type of uptake. For example, if Speaker tags her utterance with *s'il te plaît* (60a) or *sans indiscrétion* (60b), the utterances require an uptake as a directive or a question respectively.

(61)   a. Tu rentreras à la maison demain, s'il te plaît !
        b. Sans indiscrétion, tu rentreras à la maison demain ?

Notice that we have not made any claim about the interpretation of (59) as a hint (Green 1975), i. e when Speaker uses situation knowledge and inferences to determine which uptake to perform. In this case, (59) should be taken up as an assertion in order to provide the premise of the inferences. This is a general feature of hint interpretation: it requires that a propositional content be accepted by Speaker, directly when triggered by declaratives or corresponding to the resolving proposition when triggered by interrogatives.

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