

## A Relevance-Based Approach to Speech Acts

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### 1. *Introduction*

A basic problem for a theory of communicative intentions and speech acts is to find the relevant linguistic and contextual conditions that allow the hearer to recognize the illocutions that speakers intend to communicate with their utterances. This seems to be even more necessary if we consider that illocutions can be realized with a various number of linguistic structures and sentence types. For instance, consider (1):

- (1) a. Do you know that Italy is in the final of the World Cup?
- b. I feel like smoking now.
- c. Why are you still watching the TV?
- d. I am really curious to know where you have been until now.

In many contexts, (1a) is relevant only if it can be understood as an assertion about the fact that Italy is in the final of the World Cup, (1b) as a request to have a cigarette, (1c) as a request to stop watching the TV, and (1d) as a question about where the hearer has been until the utterance time. Nobody can really say s/he has understood these sentences in a certain context unless s/he can recognize the communicative intentions of the speaker as the intention to perform a request, a question or an assertion. If both (1b) and (1c) are recognized as requests, notwithstanding their evident structural differences, this means that both utterances are able to trigger off some relevant conditions about their content that correspond to the identification of an illocution of requesting. This must be possible if the hearer can then categorize these acts as requests: in fact, the hearer can say that the speaker has requested to give her/him a cigarette and that s/he has requested to stop watching the TV.

The aim of this paper is to analyze the case of requests, assertions and questions and to see how it is possible to explain the recognition of these illocutions from different sentence structures inside a model of communication based on the principle of relevance.

### 2. *Communication and relevance*

Sperber & Wilson (1986) claim that linguistic communication is an instance of what they call *ostensive-inferential communication*:

- (2) The communicator produces a stimulus which makes it mutually manifest to communicator and audience that the communicator intends, by means of this stimulus, to make manifest or more manifest to the audience a set of assumptions  $\{I\}$ . [Sperber & Wilson 1986: 155]

In the case of linguistic communication the stimulus is a linguistic chunk, possibly a sentence. The stimulus changes the cognitive environment of the speaker and the hearer: new assumptions are made manifest, namely can be assumed by the hearer as representation of the cognitive environment itself. *Assumptions* are representations that a cognitive agent treats as true descriptions of the actual world (beliefs) or as representations of potential words (desires), and so forth.

Given new information  $\{P\}$  and a context of old information  $\{C\}$ , the *contextualization* of  $\{P\}$  in  $\{C\}$  is every deduction based on the union of  $\{P\}$  and  $\{C\}$ . Every contextualization gives rise to *contextual effects* iff:

- (i) it derives contextual implications, namely assumptions that can be derived by the union of  $\{P\}$  and  $\{C\}$ , but cannot be derived only by  $\{P\}$  and only by  $\{C\}$ ; or
- (ii) it erases some assumptions in  $\{C\}$ ; or
- (iii) it modifies the strength of some assumptions in  $\{C\}$ .

The problem for a theory of linguistic communication, i.e. for pragmatics, is to establish how the hearer is able to recognize the set  $\{I\}$  of assumptions that the speaker intended to communicate by uttering a certain sentence. This means that given the contextual effects that the interpretation of a linguistic chunk can produce, the hearer must identify the subset of these contextual effects that the speaker intended to communicate. For a theory of speech acts, *the challenge is to determine what is the structure and the content of  $\{I\}$  that allows the hearer to recognize the speaker's intention to realize a certain illocution*; from the communicator's point of view, this means investigating which contextual effect it is necessary to intend the hearer to recognize in order to produce a certain illocutionary effect.

In order to explain how the set  $\{I\}$  can be identified, Sperber and Wilson claim that every act of ostensive communication comes together with a presumption of its relevance. This is a consequence of its being an act of ostension. In fact, an act of ostensive communication must attract the audience's attention: if the speaker is "requesting" the hearer's attention, then the hearer has the right to assume that what the attention is drawn to is relevant. In other words, the hearer assumes the stimulus is relevant enough to be worth processing it. The following is the definition of the relevance of an assumption in a context:

(3) *Relevance*

(a) An assumption is relevant in a context to the extent that its contextual effects in this context are large.

(b) An assumption is relevant in a context to the extent that the effort required to process it in this context is small. [Sperber & Wilson 1986: 125]

(4) and (5) define the basic rules of ostensive-inferential communication:

(4) *Principle of Relevance*

Every act of ostensive communication communicates the presumption of its optimal relevance. [Sperber & Wilson 1986: 158]

(5) *Presumption of Optimal Relevance*

(a) The set of assumptions  $\{I\}$  which the communicator intends to make manifest to the addressee is relevant enough to make it worth the addressee's while to process the ostensive stimulus.

(b) The ostensive stimulus is the most relevant one that the communicator could have used to communicate  $\{I\}$ . [ibid.]

An interpretation of an utterance is *consistent with the principle of relevance* if and only if "a rational communicator might have expected it to be optimally relevant to the addressee." [Sperber & Wilson 1986: 166]. The task of the hearer in identifying the communicative intentions of the speaker is to find an interpretation of the utterance that is consistent with the principle of relevance. This same principle warrants the selection of the *first accessible interpretation* which is consistent with the principle of relevance, as the intended interpretation. This follows directly from the above mentioned principle. In fact, suppose that the hearer finds the first accessible interpretation, say  $I_1$ , which is consistent with the principle of relevance; suppose also that s/he keeps on searching and finds another interpretation  $I_2$  which is less accessible than  $I_1$  but still consistent with the principle of relevance.  $I_2$  cannot be the intended interpretation of the utterance, because if it were so, for the principle of relevance the speaker should have produced a different stimulus which would allow the hearer to recover  $I_2$  as the most accessible interpretation, so saving the effort of first processing  $I_1$  and then  $I_2$ .

This way, relevance represents the main communicative tool that leads the inferential process which is necessary to identify the communicative intentions behind an utterance. It is the principle of relevance that allows the speaker to infer that a certain set of assumptions, recovered from the sentence and the context of utterance, represents the informative content that the speaker has intended to communicate with that utterance.

### 3. *Relevance and speech acts*

According to Sperber & Wilson (1986), communication is an inferential process starting with a linguistic stimulus uttered by the speaker. However, they are very clear in saying that

part of the communicative process is a decoding phase. Code communication is not the basic way linguistic communication is realized in the sense that coding and decoding are not sufficient in themselves to explain the richness of communication. Rather, the decoding phase is just "subserving" to the inferential process: the inferential process acts like a process of contextualization of a new piece of information in a background of old assumptions. It is by means of the decoding process that the hearer gets the new information, but it is only via the process of its inferential contextualization that the real communicative intentions of the speaker are recovered.

Speakers are supposed to be rational and to act rationally in communicative processes.<sup>1</sup> This process of intention identification is *not demonstrative*: it consists of a process of hypothesis formation and of one of their confirmation. The task of the hearer is to form a number of hypotheses on the nature of the set  $\{I\}$  of assumptions that the speaker intends to communicate, and then try to see which hypothesis is confirmed. The principle of relevance represents the main tool the hearer uses in this confirmation process. Therefore, it follows that communication may fail: in fact, there is no demonstrative proof that with a certain utterance the speaker will reach its communicative intentions. Then, the principle of relevance also explains how communication can fail, exactly in the case in which the hearer is not able to recover any interpretation consistent with the principle of relevance.

Given this structure of the communicative process, how is it possible to explain the speaker's ability in performing different illocutionary acts by uttering sentences in various contexts? In other words, how can the relevance theory explain the general problem of speech act understanding and the specific classical problem of indirect speech acts? As is well known, the problem of indirect speech acts arises as a consequence of assuming what Levinson (1983) calls the Literal Force Hypothesis (LFH):

(6) *Literal Force Hypothesis*

- (i) Explicit performatives have the force named by the performative verb in the matrix clause.
- (ii) Otherwise the three major sentence-types, namely the imperative, interrogative and declarative, have the forces traditionally associated with them, namely ordering (or requesting), questioning and stating respectively.

If sentence types are supposed to encode the basic types of speech acts, there arises a problem to explain cases like (1) where the sentences can be normally used to communicate illocutions which are radically different from ones that sentence types semantically express. The theory of speech acts therefore becomes dichotomous: there are cases in which the communicated illocution is the literary one, and there are cases in which the speaker communicates an indirect force, which is recognized via an inferential pattern by means of pragmatic devices, like the conversational maxims of Grice (see Searle (1975a) and Bach and Harnish (1979)). A common feature of the classical model of indirect speech acts is that the LFH is respected in any case: in other words, the hearer always starts with recognizing the literary illocution, and only when the context does not license it s/he goes on overriding the literary illocution and deriving a new force which is pragmatically appropriate. Gazdar (1981), Levinson (1979) and Levinson (1983) contain strong critiques to this model of speech act recognition, and to the general need and plausibility of assuming the LFH.

Sperber & Wilson (1986) and Wilson & Sperber (1988) are on the same perspective as Gazdar and Levinson in refusing the idea that sentence types have to be directly associated to specific types of illocutions. In fact, they say that "early speech act theorists regarded illocutionary force as a properly semantic category." [Wilson & Sperber 1988: 77]. On the contrary they propose a radical change in perspective:

The correct conclusion seems to be that illocutionary force is a purely pragmatic category, a property not of sentences but only of utterances. What is it, then, that distinguishes declarative, imperative and interrogative sentences on the purely semantic level? the answer one finds increasingly in the literature is that it is not force but mood. [Wilson & Sperber: 78]

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<sup>1</sup> See Sperber & Wilson (1986: 165): "intentions are identified by assuming that the agent is rational, and by trying to find a rational interpretation of her actions."

The process of recovering communicative intentions in ostensive-inferential communication starts from decoding the linguistic input: this allows the hearer to extract the semantic representation of the sentence, identifying the referents and accessing also the encyclopaedic knowledge associated with the concepts that compose the propositional content. However, this process of constructing and enriching the propositional content includes also a process of decoding the mood of the sentence. This phase consists in embedding the propositional form of the sentence into certain propositional attitudes, which differ according to the mood of the sentence. These propositional attitudes are added to the set  $\{I\}$  of assumptions that the speaker intends to communicate, and represent the first step of the inferential chain that leads the hearer to explore the other members of  $\{I\}$  and to find the interpretation which is consistent with the principle of relevance. Sperber and Wilson propose the following semantic representation of the three basic moods:

(i) *Declarative sentences*

In uttering a declarative sentence with propositional form  $P$ , the speaker *says that  $P$* , i.e. *s/he communicates that  $P$  represents a description of an actual state of affairs*. Since this is exactly the way beliefs are defined, a declarative sentence communicates that the speaker believes that  $P$ . This way, the decoding of a declarative sentence allows the hearer to infer that  $\{I\}$  contains the speaker's belief that  $P$ . Therefore *declarative sentences represent the speaker's belief about their propositional content as being relevant*.

(ii) *Imperative sentences*

In uttering an imperative sentence with propositional form  $P$ , the speaker *tells the hearer to  $P$* , i.e. *s/he communicates that  $P$  represents a description of a state of affairs as being both potential and desirable*. A state of affairs is potential if it is conceived as being true in at least a possible world "compatible with the individual's assumptions about the actual world, which may therefore be, or become, actual" [Wilson & Sperber 1988: 85]. The decoding of the imperative mood allows the hearer to infer that  $\{I\}$  contains the representation of the speaker about the potentiality and desirability of  $P$ . Therefore, *imperative sentences communicate that the fact that the speaker considers  $P$  as representing a potential and desirable state of affairs is relevant*.

(iii) *Interrogative sentences*

There are two subcases, depending whether the interrogative is *yes/no* or *wh-*. In both cases, given an interrogative sentence with propositional content  $P$ , the speaker is asking  $P$ . Moreover, if the interrogative is *yes/no*, *s/he communicates that the thought represented by  $P$  would be relevant if true, namely that it is desirable*. On the other hand, if the interrogative is *wh-* and  $P$  is an incomplete proposition, the speaker communicates that there is some completion of the thought represented by  $P$  that would be relevant if true, namely desirable. A propositional form which is used to represent not a state of affairs, but another thought is said to be used *interpretively*, and to interpret the thought it represents. Therefore, *interrogative sentences communicate that the fact that the speaker considers  $P$  as a desirable thought is relevant*.

Sperber and Wilson make it very clear that the interpretation of mood *never* directly corresponds to a specific and complete illocutionary force. They believe rather that mood decoding gives "a directed semantic link between linguistic form and representations of propositional attitude." [Wilson & Sperber 1988: 99]. Mood gives a clue for the interpretation that the speaker wants to convey:

Our claim is that the characteristic linguistic features of declarative, imperative, or interrogative form merely encode a rather abstract property of the intended interpretation: the direction in which the relevance of the utterance is to be sought. [ibi: 101]

This way Sperber and Wilson's proposal represents a real alternative to the LFH. However the question of how concretely illocutions are recognized and interpreted still remains unexplained.

Sperber and Wilson claim that the assumptions that the mood consents to form, are not complete, but rather schematic. For example, imperatives communicate that a state of affairs is potential and desirable, but they do not say *for whom* the state of affairs is desirable. Therefore,

desirability acts like a *parameter* which can be contextually set, producing different interpretations of the utterance. The type of illocution that can be realized with an imperative sentence depends on the way the parameter is filled:

With requests, commands, orders, good wishes [...] the indeterminacy is resolved in favor of the speaker, who is understood as indicating that the state of affairs described is desirable from her point of view. [...] if the hearer is manifestly in a position to bring about the state of affairs described, the utterance will have the force of something like a request, command, order, or plea. [Wilson & Sperber 1988: 85]

With interrogative sentences the procedure is exactly the same. Sperber and Wilson state that saying that interrogatives represent desirable thoughts is equal to the claim that they represent possible answers as relevant. Again desirability of the thought or relevance of the answer are parametrized: filling the parameter leads the hearer to recognize different types of questions, such as information questions, exam questions, rhetorical questions, etc.

This solution to the way specific illocutions are inferred has some problems. Sperber and Wilson seem to suggest that the hearer recognizes an utterance as a request when s/he recognizes the speaker's intention to describe a state of affairs as potential and desirable for the speaker her/himself and that the hearer is in a position to bring about the described state of affairs. This is fair when the sentence is imperative, but what happens when the sentence is interrogative, like (7), or declarative like (1b)?

- (7) Why don't you stop making all this noise?
- (1) b. I feel like smoking now.

In both cases, there is no state of affairs which is represented as potential and desirable for the speaker. In the case of (7) a thought and not a state of affairs is represented as desirable; in the case of (1b) the state of affairs is represented as actual rather than potential and desirable. Similar problems arise with interrogatives: in fact, Sperber and Wilson say that it is not true that every interrogative semantically encodes a question, as an attempt to get some information from the speaker. Rather, from the way they define interrogative mood, it is clear that they believe that interrogatives communicate a very abstract schema of question, whose values are contextually set by the speaker. But, what happens when interrogative sentences are not intended to communicate any question at all? How can the hearer proceed from the decoding of an interrogative mood up to the recognition of an illocutionary intention which is totally different from a question? For instance, consider (8) and again (7):

- (8) a. Do you know that Italy has tied with Mexico?
- b. Really? It is unbelievable!

The reaction that the speaker expects from uttering (7) is an action by the hearer, more specifically stopping the activity that is producing noise. Similarly, no question at all, even a rhetorical one, is intended with (8): in fact, the possible response of the hearer is one which is characteristic of a reply to an assertion. And actually, in a relevant context, (8) is interpreted as an assertion.

I suggest that the relevance theory gives the right theoretical tools to devise a possible solution to these questions, even if it is necessary to slightly modify the way the basic illocution types end up being defined by Sperber and Wilson.

#### 4. *A new definition of speech acts*

For the purpose of the analysis, I will assume the principle of relevance as basic for communication and intention recognition. Moreover, like Sperber and Wilson I consider the recognition of speech acts as a pragmatic inferential process, which contains a preliminary decoding phase of the semantic import of the sentence mood. The semantic contribution of mood is the one described in the former section. I assume that speech act recognition is part of the process that leads to find an interpretation of the speaker's utterance which is consistent with the principle of relevance. The type of illocution which is recognized depends on the way

the utterance is interpreted to be relevant. More specifically, the hearer has to find a set  $\{I\}$  of assumptions which is consistent with the principle of relevance and which therefore can be interpreted as representing the informative intention that the speaker intended to communicate with its act of ostension. *Different illocutionary acts can be defined in terms of conditions on the content of the set  $\{I\}$  which is consistent with the principle of relevance.*

I suggest that the hearer recognizes an utterance as communicating a request iff *s/he recognizes the speaker's intention that the utterance gives a reason or motive to the hearer to do a certain action.* The hearer decodes the semantic content and the mood of the sentence: this gives her/him a set of starting assumptions that are contextualized. This way, a process of inference starts: the inference rules that are part of the rational endowment of the hearer are applied to the initial set of assumptions plus to all the assumptions that are recovered from the context. It is plausible to assume that speakers, as rational beings, have a certain knowledge regarding what constitutes a reason for doing an action. This knowledge can derive from acting experience, social rules, institutional or acquired habits, and can also be structured in terms of inference rules, whose output is the fact that an agent has a reason to act in a certain way. An agent can have a reason to do a certain action because s/he has to do it, i.e. there is a moral or factual obligation for her/him to do the action. An agent can have a reason to do an action because someone else wants her/him to do it and the greater is the authority or the influence of this person the stronger is the reason. An agent can have a reason to do an action because s/he wants to cooperate and help another agent in reaching something, if s/he knows that the action in question can be useful for this purpose, etc. Obviously, this does not imply that the agent will actually do the action. It is a human prerogative that actions can be executed or not independently of the amount or importance of the reasons we have for them. However, this knowledge about the reason to do an action can be interpreted as giving the agents clues for their decisions about the execution or not of actions.

The knowledge about rational agency can be represented in terms of inferential rules that are part of the inferential endowment that helps the speaker in her/his reasoning process. Moreover, this know-how is plausibly mutually manifest to all the speakers, because it relates to their normal experience as rational agents in the world. These rules are part of what can be called a *theory of rational agency* of human beings. What I suggest is that it is just this knowledge that helps the hearer in identifying the eventually requestive force of an utterance. Actually, not only of requests, but of a larger set of illocutions, which more or less coincides with the traditional class of directives. Therefore, I propose the following definition:<sup>2</sup>

#### *Directives*

Given the utterance of a sentence  $\varphi$ , the hearer  $H$  identifies the intention of the speaker  $S$  to communicate a directive illocution with  $\varphi$  iff  $H$  recognizes *a motive or reason for her/him to do an action  $e$*  as belonging to the set of assumptions  $\{I\}$  that is consistent with the presumption of relevance of  $\varphi$ .

In other words, the hearer interprets the utterance as a directive if s/he realizes that the greatest cognitive effect with the smallest cognitive effort that the speaker intends realizing with it includes giving the hearer a reason to do a certain action. It only *includes* this effect, because the relevance of the sentence can be larger than simply the recognition of its illocutionary force. Different subtypes of directives can be recognized depending on how the sentence intends to give the hearer a reason to do an action. For instance, an order can be recognized, if the hearer understands that the authority or the upper rank of the speaker is intended to be one of the reasons for her/him to execute an action; a suggestion can be recognized if the hearer understands that the reason for her/him to do the action derives from the fact that such an action can bring positive effects for the hearer her/himself, and so forth.

Some examples will show how the recognition of directives, and in this special cases of requests, can work according to the proposed definition:

- (9)
- a. I feel like smoking now.
  - b. Do you have a cigarette?
  - c. You must bring out the trash.
  - d. Bring out the trash!

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<sup>2</sup> For a different definition see Lenci (1994): there, a formal model of speech act recognition is outlined, inside a theory of communicative intentions that is not based on the principle of relevance.

(9a) is declarative and the hearer decodes that the speaker represents the fact that s/he feels like smoking as being an actual state of affairs. In other words  $\{I\}$  contains (10):

(10) The speaker believes that s/he feels like smoking now.

This assumption activates some hearer's knowledge, about smoking in general: s/he can therefore extend  $\{I\}$  with (11).

- (11) a. Smoking requires something to smoke, for instance a cigarette.  
b. If someone wants to smoke, s/he may need something to smoke.  
c. The speaker may need something to smoke.

Suppose that the context in which the hearer processes the sentence allows her/him to have other assumptions that regard the specific situation of the speaker and the hearer:

- (12) a. The speaker knows I am a smoker.  
b. The speaker believes I have something to smoke.

Finally we can suppose that (13) is part of the knowledge that concerns the reason for a rational speaker to do an action:

(13) If  $X$  wants to do  $Q$  and my doing  $P$  would help  $X$  in doing  $Q$ , then I have a reason to do  $P$ .

Given the set of contextual implications s/he has reached, the hearer can instantiate (13), obtaining (14):

(14) If the speaker wants to smoke, and my giving her/him a cigarette would help her/him in smoking, then I have a reason to give her/him a cigarette.

Finally, the hearer can add (15) to  $\{I\}$ :

(15) I have a reason to give her/him a cigarette.

Since this assumption belongs to  $\{I\}$ , if this set of assumptions is consistent with the principle of relevance, then (15) is part of what the speaker is trying to convey to the hearer: according to our definition this amounts to saying that the speaker is communicating a request. In other words, the hearer can infer that requesting is part of the communicative intentions of the speaker. Thus, the speaker tries to communicate her/his requestive illocutionary intention, by producing an utterance which in interaction with the context can give the hearer a reason to do an action. If the hearer recognizes this intention in her/his interpretation of the utterance s/he identifies the utterance as a request.

The inference pattern in the case of (9b) is pretty much the same, except for the starting point. In fact, this time the speaker utters an interrogative and then represents the thought that the hearer has a cigarette as being relevant if true. The hearer should then be able to infer that the speaker may be a smoker and then may need a cigarette, and so forth. Anyway, in some sense with this sentence the requestive reading can be considered more easy to recover, because the relevance of the hearer's having a cigarette is explicitly communicated by the speaker. The inferential pattern from the two sentences to the recognition of a request is *ceteris paribus* smaller with (9b) than (9a): in a comparative sense, (9b) represents a less indirect (or more direct) request than (9a).

The declarative in (9c) allows the speaker to add (16) to  $\{I\}$ :

(16) The speaker believes that I must bring out the trash.

and more explicitly (17):

(17) The speaker believes that I have some obligation to bring out the trash.

Having an obligation to do an action can represent a reason for a rational agent to do that

action. The hearer can therefore infer (18), which also gives her/him the clue that the utterance is a request to bring out the trash:

(18) I have a reason to bring out the trash.

Finally, the imperative sentence in (9d) produces the following assumption:

(19) The speaker represents the fact of bringing out the trash as being potential and desirable.

Contextualization can show that this action is desirable for the speaker. If an action is desirable for the speaker, and the hearer is in the condition to do it, then s/he has a reason to do it in a situation of cooperative behavior: therefore again the hearer can add (18) to  $\{I\}$ . This directly leads the hearer to infer that with her/his utterance the speaker intends to convey a reason for the speaker to do a certain action, i.e. s/he is requesting her/him to bring out the trash.

All the four cases in (9) in particular contexts can be used to perform a request. In each case, even when the sentence is imperative, no illocution is simply decoded from the sentence structure, rather it is the result of an inferential process. The only distinction is the complexity of this process. Therefore, the notion of direct or indirect speech act cannot really apply anymore, as a dichotomous categorization. If a direct illocution is to be intended as something which is semantically decoded then no request is directly communicated. The notion of direct illocution is rather a *comparative* one: (9a) is less direct than (9b) which is less direct than (9c), and so forth. The more complex the inference process is, the more indirect the illocution is. This has a rationale in the relevance framework. In fact the more complex an inference pattern is, the more cognitive effort it costs. Therefore, the probability of finding other interpretations with the same amount of cognitive effects, but with lower cognitive costs, is higher. This means that in this case the communication of a certain illocutionary intention has more risks to fail and not to be recognized as the intended reading of the utterance.

Now a question can be raised: is this idea of requesting as giving a reason to do a certain action not similar to Searle's original idea that requesting means attempting to make the hearer do an action?<sup>3</sup> The answer is yes: if this analysis can work it means that it is possible to adopt Searle's original insight for requests in the communicative framework of relevance. Using the core of the original notion with the new interpretation of communication inside the relevance theory can also be really useful in overcoming the difficulties of the notion of literal force and of indirect speech acts, which are typical of the more traditional approach to speech act recognition.

This model of speech acts can be extended to some members of the assertive class. I define the recognition of an act of Informing in the following way:

#### *Informing*

Given the utterance of a sentence  $\varphi$ , the hearer  $H$  identifies the intention of the speaker  $S$  to communicate an act of Informing  $H$  of  $Q$  with  $\varphi$  iff  $H$  recognizes a *motive or reason for her/him to form the belief that  $Q$*  as belonging to the set of assumptions  $\{I\}$  that is consistent with the presumption of relevance of  $\varphi$ .

As speakers share some knowledge about the rational agency and about the reason to do actions, similarly speakers have *knowledge that concerns the assumption and formation of beliefs*. It is this knowledge that can be used by the hearer to infer an act of Informing by the speaker. In other words, the hearer recognizes an utterance as an Information if s/he realizes that the greatest cognitive effect with the smallest cognitive effort the speaker intends to realize with it, is to give a reason to the hearer to form a belief that  $Q$ . For example, consider (20):

(20) a. Do you know that Italy is in the final of the World Cup?  
b. Italy is in the final of the World Cup.

Both these sentences can convey an act of Informing the hearer about a certain thought. In the case of (20a), the decoding of the interrogative mood gives rise to the following

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<sup>3</sup> See Searle (1969), (1975a), (1975b), Searle & Vanderveken (1985).



assumption:

- (21) The thought that I know that Italy is in the final would be relevant if true.

If the hearer actually does not have any assumption about Italy and the final of the World Cup, then the fact that the speaker communicates that having this assumption is relevant, can be a reason for the hearer to form this assumption itself. Since the hearer can inferentially recognize that a reason for her/him to form the assumption that Italy is in the final belongs to the set  $\{I\}$  that is consistent with the principle of relevance, then s/he can recognize the utterance as communicating an act of Information by the speaker. Then the hearer will actually decide to form this belief or not, depending on how much s/he trusts the speaker, but this fact comes independently from the identification of an Informative illocution.

As far as (20) is concerned, the declarative mood allows the hearer to assume that the speaker intends to represent the fact that Italy is in the final as an actual state of affairs. The fact that a state of affairs is represented as actual can be a good reason for an agent to form a belief about it. This sentence can therefore be interpreted as an Information too.

Again, like for directives, no sentence structure is directly associated with Informing. In both sentences in (20) an inferential process is necessary. We can say that declarative sentences allow shorter inferential patterns to identify the Informing reading, and therefore they are more naturally used to convey this kind of illocution. However this depends on the nature of the context: if another reading is more relevant (as result of a balance between costs and benefits in cognitive terms), then that reading is understood as communicated.

Moreover, slightly modifying the definition of Information other illocutions can be captured. For instance, if we say that the contextualization of an utterance is recognized as giving a reason to raise the strength of an old assumption instead of forming a new one, an act of Confirming can be recognized.

Finally, the definition of directives together with the one of Informing allows us to define the minimal conditions necessary to identify a Question:

#### *Question*

Given the utterance of a sentence  $\varphi$ , the hearer  $H$  identifies the intention of the speaker  $S$  to communicate a Question with  $\varphi$  iff  $H$  recognizes a motive or reason for her/him to execute a speech act of Informing  $S$  as belonging to the set of assumptions  $\{I\}$  that is consistent with the presumption of relevance of  $\varphi$ .

Depending on which reason for Informing the speaker the hearer recognizes as communicated by the speaker, the hearer can interpret different types of questions: authentic questions, exam questions, guess questions, etc. Obviously this definition does not cover the case of rhetorical questions: however it is very debatable if they have to be classified as questions at all, or if they should rather be considered as sorts of assertive acts.

This characterization of the recognition of questions considers them as members of the class of directives. Again the spirit of the solution is to save the core of the classical Searlian definition, and to update it inside an overall process of utterance interpretation based on the principle of relevance and on the refusal of the hypothesis of the existence of literal illocutionary forces.

## 5. Conclusions

Speech act recognition is always a pragmatic process. Sentence types offer the initial clues and direction to drive the inferential process in order to understand the illocutionary intentions of the speaker. This does not exclude that certain inferential patterns have become so standard as to acquire almost the status of conventionalized forms. Anyway, the fact still remains that speech act production and understanding is a *creative* process, in the sense that illocutions can be realized with always different linguistic structures, given a convenient context. This means that in order to approach globally the phenomenon of the speech act interpretation it is necessary first of all to explain this creativity. A pragmatic, inferential model seems to be the most appropriate for this purpose.

The principle of relevance and the theory of communication which is based on it is useful to give a different solution to the problem of indirect speech acts; however, at the same time it is

possible to vindicate some of the classical definitions of speech acts, that can be exploited in this model.

The recognition of indirect speech acts is now based on *principles of human agency and belief formation*. While in the classical models of speech acts their interpretation was grounded in the knowledge of speech act structure themselves, now it is based on the knowledge of human rational behavior. It is still true that speech acts can be analyzed in terms of internal conditions, but I believe that in most cases this is a metatheoretical process, that is not essential for their production and interpretation. What I suggest is essential for understanding and producing illocutions are the linguistic competence, a knowledge of the context, the knowledge of rational human behavior in interactions and the ability to balance these three components. The study of speech acts must therefore look at the study of human behavior and cognition in general, since speech act competence is the result of the interaction between these different skills.

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