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# Towards an Interface between Pragma-Dialectics and Relevance Theory

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This paper investigates the tentative compatibility of two pragmatic approaches, Pragma-Dialectics (*PD*) and Relevance Theory (*RT*). The development of pragmatics historically led to conceptions of communication that supplied answers formal logic approaches had trouble capturing. Within argumentation studies, *PD* took this pragmatic turn while at the same time pursuing a normative agenda. This gives evidence of an *external* approach to language (in that argumentation follows norms imposed by the theorist) excluding, though not closing the door to cognitive insights. The purpose of this paper is to discuss the extent to which *PD* can operate from an *internal* cognitive perspective – i.e., with explicit ambitions of dealing with cognitive mechanisms of meaning construction and belief fixation.

## 0. Introduction*

Today, van Eemeren and Grootendorst's 'Pragma-dialectics' (1984, 1992, 1996, and 2004) (henceforth *PD*) is probably one of the most influential paradigms in argumentation studies. This is perhaps because its designers have surveyed and critically evaluated virtually all the studies of argumentation known since Greek Antiquity, but also – and, in my opinion, mainly – because they integrate *pragmatic* and *dialectical* insights. It is indeed commonly accepted today that arguing is more than merely 'doing logic' and that a solid theory of argumentation is one which addresses not only the question of the conceptual structure of arguments but also that of the argumentative *usage* of language.

Across history, the appropriate way to study argumentation has been debated by numerous philosophical traditions. One of the most ancient of these is logic, which confines the assessment of argument validity to formal conceptual considerations based on natural logic. Rhetorical theories of argumentation, such as Perelman and Olbrechts-Tyteca's *Nouvelle rhétorique* (1958), stress the importance of rhetorical

factors in arguing and convincing people by putting forth the reliance of argument's effectiveness on audience-centred factors. Toulmin's (1958) model of *practical arguments* tries to focus more on justificatory than inferential functions of argumentation, via the notion of *warrant*. Informal logic (see Johnson 2000 and Pinto 2001, for example) is a relatively recent approach that focuses on 'real-life' arguments, in contrast "with the *a prioristic* application of deductive calculi to the contrived arguments typical of some applications of formal logic to natural language" (van Eemeren and Grootendorst 1996: 164). *PD* identifies and tries to make up for the problems these approaches face by undertaking a 'pragma-dialectic turn'.[1]

The first objective of this paper is to bring forward the role of a pragmatic component in argumentation studies. Section 1 will therefore focus on the problems (formal) logic faces when addressing argumentation, defend the necessity of pragmatic insights and consequently acknowledge *PD*'s contribution in this respect.

Section 2 will evoke two issues raised by *PD* if we choose to adopt a cognitive perspective, namely its approach to meaning construction and its avoidance of belief fixation matters (argumentation's 'perlocutionary' effects). It is in relation to these two issues that I will try to discuss a few possible connections with cognitive studies. It should already be noted that these two issues are quite distinct: one relates to what communicators do *before* engaging in procedures of argument checking (*upstream* issue, section 2.1.), and the other to what communicators do *after* they have assessed the argument in question (*downstream* issue, section 2.2.). While I try to assess a possible way of approaching these questions, my intention is of course not to submit here a full-fledged model of argumentation able to supply a comprehensive answer to both interrogations. This would (evidently) require thorough and systematic research, both on a theoretical and empirical level. I consequently assume the inherently programmatic nature of this contribution.

My ambition is to investigate if cognitive accounts of communication can be relevant to the study of argumentation. With respect to this idea, van Eemeren and Grootendorst state that:

> There is no need to have detailed knowledge of all the cognitive processes that play a role in the interpretation of a discourse of text in order to be able to carry out an analysis based on externalized textual characteristics, but some insight into these processes can, of course, deepen the analysis (van Eemeren and Grootendorst 2004: 74).

In an attempt to see whether the analysis can indeed be 'deepened', I explore the implications of adding to *PD* some insights of a cognitive approach such as Sperber and Wilson's Relevance theory. Of course, this does not exclude the potential utility or appropriateness of neo-Gricean approaches such as Levinson's (2000), Horn's (2004), or Bach and Harnish's (1979) in the analysis.[2] Rather, I take *RT* as one paradigm of *cognitive pragmatics* among others. Section 3 will introduce *RT* and discuss if its integration with *PD* into a cognitive account of argumentation is in principle possible and fruitful. As a conclusion, I will consider the global framework in which argumentation studies develop today. This will lead me to point out two tendencies of pragmatic studies and to evoke their convergence.

## 1. Argumentation: between logic and pragmatics

### *1.1. (Formal) logic and argumentation*

Argumentation has traditionally been studied by formal logic. Truth-conditional semantics, as an extension of formal logic dealing with natural language matters, assumes that sentence meaning representation is possible through an abstraction designed to explicate language structure and its internal dependencies. Since they are considered abstractly, sentences are conceived as meaningful entities *per se*. This is roughly what Cann has in mind in the following definition:

> semantics is the study of meaning abstracted away from those aspects that are derived from the intentions of speakers, their psychological states and the socio-cultural aspects of the context in which their utterances are made (Cann 1993: 1).

This is true for single sentences, but also for sequences of sentences, for instance when they are combined into an argumentative scheme. Within this framework, dealing with sound argumentation implies dealing with truth, which is assessed by looking at truth conditions. Assessing the validity of an argument hence consists in making sure that the truth of its conclusion follows from the truth of its premises, according to a finite set of inferential schemes.

The aspect of formal logic approaches to argumentation I want to stress here is the fact that their system applies to abstract and *non-contextualised* representations. As a matter of fact, their application to 'real-life' argumentation raises certain issues. This might be a consequence of what some call the *underspecification of semantic meaning*, namely the fact that a proposition does not linguistically encode its full meaning. Unarticulated constituents of meaning (see Perry 1986) as well, of course, as implicit material, play a decisive role in interpretation; formal logic experiences nevertheless some trouble capturing all these kinds of inputs.

Indeed, it must first be noted that we seldom use canonical forms of deductive rules of propositional logic (for instance the *modus ponens*) when we argue. Even if the underlying form of an argument can match one of the conceptual schemes identified by logicians, the actual utterance often differs from it, sometimes to an extent that makes its reconstruction quite difficult, although our mind is usually pretty good at dealing with it. The discrepancy between the abstract structure and its actual use in argumentation, among other reasons, shows the need for an import from pragmatics.

Second, it is a fact that we can argue without using specifically argumentative connectives, and still communicate causal justification. This tends to prove that interpretation also relies on decisive elements found outside the sentence. Take for instance (1) and (2):

(1) Winston fell unconscious. The burglar hid his bludgeon back into his coat.

(2) Let's take an umbrella, or did you want to get wet? (van Eemeren and Grootendorst 1992: 47)

Even if no linguistic argumentative pointer directs us to understand the second sentence as representing the cause of the event represented in the first one, (1) is perfectly unproblematic, since we can interpret that Winston fell unconscious *because* the burglar hit him with a bludgeon. We are able to infer this kind of relation because of background knowledge and contextual information, which are not linguistically nor conceptually encoded into the stimulus, and thanks to our automatic and spontaneous ability to draw inferences on the basis of incomplete information.

In (2), the proposal is followed by a question that clearly has to be interpreted as an argument meant to sustain the claim that the speaker and the hearer should take an umbrella. However, no explicit argumentative pointer favours this interpretation (the linguistic connective 'or' does not semantically encode causality, but disjunction). Van Eemeren and Grootendorst explain the causal relationship by arguing that the first clause, although it is not literally a standpoint (you cannot answer "I disagree" to "let's take an umbrella"), functions as one, and that the second is not just a yes/no question. I would add that the alternative offered in the second clause is somewhat ridiculous (most people would not at first glance be inclined to get wet); as such, it is easily disposable, and reinforces the initial proposal. Moreover, from a strictly semantic point of view, we cannot even decide whether (2) carries argumentative force or not. What if the speaker considered that the hearer had reasons to get wet (because s/he likes it, or for any other possible reason)? In this case, (2) would not be argumentative, but strictly interrogative. The point is that we cannot explain why (2) can be argumentative by virtue of its semantic or logical properties, without calling upon the context. Just as in (1), it is only *pragmatically* that we can infer argumentative force from the utterance.

Similar problems can occur in utterances with explicit argumentative connectives, such as in (3), but whose second clause displays a lack of information that must be pragmatically resolved:

(3) I don't support Bush, because Bush is Bush.

In (3), "Bush is Bush" is a tautology. However, when processing (3), we are led to presume a more substantial, or relevant, meaning. *Bush is Bush* being introduced as an argument by the connective *because*, we will try to find an interpretation that satisfies its argumentative function. And we can perfectly well come up with a plausible conclusion, even if logically, – or semantically – such a conclusion about the second clause's interpretation is not encoded.

As Dascal notes, "our 'natural reasoning' often deviates from the norms of correct reasoning". We should consequently be out for an account of "a wide range of ways of extending our knowledge that cannot be handled by formal logic alone" (Dascal 2005: 5). One of the consequences of these observations is quite straightforward: formal logic should be interfaced with other approaches, such as a pragmatic theory of argumentation. This is precisely how van Eemeren and Grootendorst envisage their model. They started from – though they did not limit themselves to – a pragmatic perspective, shaped by the idea that language is a social practice, and that communication is about doing things in addition to saying things. From a cognitive pragmatic viewpoint, pragmatic meaning is even more: it's about retrieving

intentional information, and not, or not only, social patterns of action (see Sperber and Wilson 1995).

Accordingly, I will discuss argumentation under the scope of pragmatics, and more precisely I will address which pragmatic orientations argumentation studies might take. In what follows, I begin by taking a closer look at the pragmatic foundations of *PD*.

### *1.2. Pragma-dialectics: argumentation as a social practice*

The overarching contribution of *PD* is to consider argumentation as a phenomenon of actual interaction, in addition to a matter of abstract conceptual structures. This benefits the theory by adding contextual data as parameters of crucial importance. As van Eemeren and Grootendorst conceive it:

> argumentation is a verbal, social, and rational activity aimed at convincing a reasonable critic of the acceptability of a standpoint by putting forward a constellation of propositions justifying or refuting the proposition expressed in the standpoint (van Eemeren and Grootendorst 2004: 1).

Arguing is resolving a difference of opinion by advancing propositions sustaining the claim whose acceptability is being questioned. This presupposes first that there are two participants, one of them casting doubt on the acceptability of the other's standpoint.[3] As a result, argumentation is a dialectical process: not only does it involve the participation of two individuals working out the resolution of a dispute, but it also requires systematically submitting of statements to doubt, therefore forcing their proponents to defend them.

One feature of *PD* is the model's ambivalence, in that argumentation is conceived of both as a process and as a product: "The term *argumentation* refers at the same time to the process of arguing ('I am about to complete my argumentation') and to its product ('This argumentation is not sound')" (van Eemeren and Grootendorst 2004: 1). Being a process, it is conceived as a goal-oriented activity realised by the speaker's performance of speech acts. As a product, argumentation is the result of this process, i.e., the performance of argumentative speech acts. These considerations pertain to the point of view of argumentative 'production'.

However, *PD* also envisages the perspective of reception through its analytical application. It provides in effect a model for argument evaluation that aims at assessing whether an argumentative sequence can be deemed acceptable:

> Using the [critical discussion] model as a guide, the reconstruction aims to produce an *analytic overview* of all components of a discourse or text that are pertinent to the resolution of a difference of opinion. Pursuing this aim involves examining exactly which points are at issue, which procedural and material points of departure are chosen, which explicit, implicit, indirect, and unexpressed arguments are advanced, which argument schemes are used in each single argumentation, and how the argumentation that is formed by combining single argumentations is structured (van Eemeren and Grootendorst 2004: 96).

This allows researchers to deal with both the production and the reception of discourses. From a linguistic perspective, it definitely constitutes an advantage, since in principle *PD* can address issues relative to the speaker *and* the hearer.

From an epistemological point of view, *PD* is based on Speech Act theory (following Austin (1962) and Searle (1969)) and on Gricean pragmatics, in the sense that the interaction in which argumentation is embedded follows conventions and complies with an elaborate version of Grice's Cooperation Principle, the "Communication Principle" (See van Eemeren and Grootendorst 2004: 76-77). *PD* regards argumentation as a social practice that observes certain conventional rules. In this respect, it belongs to the field of discourse analysis, where discourses are seen as 'corpus wholes' and studied from the outside, in terms of their structure and the dependence relations their constituents have with each other.

### *1.3. The pragmatic model of critical discussion (PD)*

The conceptual core of *PD* is the ideal model of the *critical discussion*. It is defined as follows:

> By a *critical discussion* we mean a discussion between a protagonist and an antagonist of a particular standpoint in respect of an expressed opinion, the purpose of the discussion being to establish whether the protagonist's standpoint is defensible against the critical reactions of the antagonist (van Eemeren and Grootendorst 1984: 17).[4]

Through a critical discussion, which is the ideal format an argumentative discussion should embrace, participants (protagonist and antagonist) exchange views in order to arrive at a resolution of the dispute by agreeing on the acceptability or unacceptability of the standpoint called into question. This procedure unfolds following – in its most recent version (see van Eemeren and Grootendorst 2004: 136-157) – a set of fifteen rules "intended to enable language users to conduct themselves as rational discussants". These are also "calculated to prevent anything that might hinder or obstruct the resolution of a dispute" (van Eemeren and Grootendorst 1984: 151). In parallel, there are also ten commandments (see van Eemeren and Grootendorst 2004: 190-196) listing the prohibited moves that would be detrimental to the resolution of the dispute and which simplify the fifteen rules by focusing on prohibitions. Summing up, successful argumentation requires the observance of critical rationalistic standards set by the theorist, which underlie the rules for a critical discussion.

As for the analysis of argumentation, it is achieved by reconstructing the argumentative path undertaken by the participants and by evaluating it with regard to the aforementioned rules and principles. However, this approach to argument validity differs from formal or logical approaches to argumentation, mainly because it is pragmatic (where *pragmatics* denotes, via Speech Act theory, a shift from propositional concerns to illocutionary ones, thus proposing a way of dealing with semantic underspecification and integrating contextual considerations) and *dialectic*, since argumentation is thought of as a social activity involving a discussion procedure

regulated according to standards of critical rationality (see van Eemeren and Grootendorst 2004: 59 for a detailed discussion of dialectic developments of argumentation studies since the 1950s). In this respect, fallacies are no longer merely conceived as conceptual faults or logical mistakes, but rather as inadequate or forbidden pragmatic moves performed in argumentative discourse by a participant. Classical logic assesses validity relatively to the conceptual structure of argumentation, independently from utterance production, whereas *PD* does so relatively to the very *performance* of argumentation. In fact, *PD* extends the conception of fallaciousness to matters of illocutionary inappropriateness, thus avoiding a restriction of its scope to propositional content.

Those speech acts that do not go by the rules of the critical discussion will be discarded as valid arguments insofar as they do not contribute to the resolution of the dispute and thus considered to be fallacious. In other words, fallacies are speech acts that violate the rules (i.e., the rules for a critical discussion, though it can be the case that these match speech act felicity conditions[5]). Let's take an example to illustrate this strong claim of *PD*.

(4) Winston's arguments are nonsensical; everybody knows he spent some time in a mental institution some months ago.

This example can illustrate a violation of Commandment # 6 ("Discussants may not falsely present something as an accepted starting point or falsely deny that something is an accepted starting point" (van Eemeren and Grootendorst 2004: 193)) as follows:[6] if the fact that Winston was admitted in a mental institution has not clearly been established beforehand as an accepted premise by the participants, then (4) is fallacious in that it asserts that this has been the case. As we can see, here, the problem does not lie with the content of the utterance nor in its logical internal articulation; but within what the speaker *did* by uttering (4).[7]

One of the advantages of *PD*'s agenda for argumentation studies lies in the fact that it tries to capture what formal logic and semantics could not account for. Since this is also one of the goals of cognitive pragmatics regarding a theory of communication, in the next section I will try to evoke its possible interface with *PD*.

## 2. Is the study of argumentation compatible with a cognitive approach to meaning and belief fixation?

### *2.1. Upstream issues*

The first point I'd like to introduce relates to what an individual (not the analyst) is supposed to do *before* being able to evaluate the soundness of the argumentation (hence the label *upstream* issue). In order to evaluate any piece of information we first need to make sense of it. This makes interpretation a necessary condition for evaluation. So, intuitively, a full-fledged theory of argumentation should address the question of *interpretation*, or at least include some module on which it can rely to deal with the question of meaning construction. This is an issue that *PD* addresses via its

reliance both on Speech Act theory and on an elaborate version of Grice's framework. However, as Dascal points out:

> Current debates about the 'foundations' of Speech Act theory (…) and its critique (…) and of pragmatics in general (…), about how to develop an action-based dynamic and dialogical grounding of the study of language use (…) , about the universality or culture-specific character of communicative competence and practice (…), about the 'correct' number of the conversational maxims (…) and the (in)sufficiency of the principle of cooperation (…) – all this shows that the field of research created by the pioneers is far from having secured sound philosophical foundations. Progress towards this aim requires further dialogue between dialogue researchers and philosophers (Dascal 1998: 17).

Speech Act theory holds that an addressee is able to fully understand a speech act if s/he is able to grasp its illocutionary force, i.e., when s/he is able to know what kind of speech act is at stake (assertion, promise, request, order, and so forth). In order to identify the speech act that has just been performed by the speaker – and thus to understand it – s/he will need to fit it into the right category. To do this, a hearer must recognise the speaker's *intention* (in the Gricean sense); the means by which s/he does so are assumed to be conventional, i.e., it is because we know by convention that specific verbal expressions are used to achieve specific effects (such as understanding which speech act has just been performed) that we are able to recognise the speech act. According to Searle, communication will be successful "if the hearer understands the sentence, i.e., knows its meaning, i.e., knows the rules governing its elements" (Searle 1969: 48), these rules being conventional. Sperber and Wilson (1995) exposed a few issues raised by this approach. Since *PD* elaborates on Speech Act theory in order to define argumentation as a complex speech act (also referred to as a 'speech act complex' in Chapter 2 of van Eemeren and Grootendorst 1984), this debate is also of importance to the pragma-dialectical model.

First of all, one and the same sentence can correspond to different speech acts. Nevertheless, the answer provided by Speech Act theory does not go into detail to explain how and why this can be the case. Take for instance (5):

(5) We wouldn't want this subject to be mentioned in Laszlo's presence.

Depending on the context, (5) could either be a simple request, an assertion, an order, an advice or even a threat. In cases where no linguistic or prosodic features favour one interpretation over another, pragmatic approaches will usually say that contextual information takes over and helps us inferring the right meaning. In particular, Searle would probably say that such is the case for (5), provided the "utterance in a context can indicate the satisfaction of an essential condition without the use of the explicit illocutionary force-indicating device for that essential condition" (Searle 1969: 68). This tells us what happens (namely, that the context can make up for the lack of explicit illocutionary force markers and allow to satisfy the speech act's essential conditions); yet it does not tell us concretely the procedure followed by the hearer for this to happen. This is probably why Searle called upon the Gricean framework to address the question when discussing indirect speech acts.

Sperber and Wilson discussed both Speech Act theory and the Gricean approach. Their arguments regarding Speech Act theory come down to the fact that it lacks explanatory adequacy:

> It is one thing to invent, for one's own theoretical purposes, a set of categories to use in classifying the utterances of native speakers, or to try to discover the set of categories that native speakers use in classifying their own utterances. It is quite another to claim that such a classification plays a necessary role in communication and comprehension (Sperber and Wilson 1995: 244).

Their point is that there are no clear or solid reasons to believe that the fact that the hearer fits a speech act into a category plays a role in comprehension. Stating that we are able to classify a speech act as an advice does not say much as to why or how, but mainly whether we are able to do it. Sperber and Wilson take the example of a tennis player and make the following comparison: it is not because a tennis player is unable to recognise a lob, a volley, a backhand or a smash that he cannot perform one. From a cognitive point of view, speech act classification and identification by the hearer may well constitute an additional and unnecessary layer of information. All in all, *RT* would probably claim that calling upon conventional reasons and establishing a classification without explaining how we use it does not, from a cognitive perspective, shed enough light on the question of the role and the construction of context in the mechanisms of interpretation.

Sperber and Wilson (1995) also discuss the foundational works of H.P. Grice. His breakthroughs on meaning and communication allowed pragmatics studies to develop a model of inferential communication postulating the cooperation between communicators and the idea that they follow and exploit certain communicative standards and maxims when they verbally interact. The strong assumption of this paradigm is the idea that explicit and implicit meaning is *calculated*. The hearer does this by following a rational step-by-step procedure known as the *working-out schema*.[8] Wilson (2000 and 2003) recalls however that this explanation of meaning construction faces serious problems of cognitive plausibility. Notably, it seems unlikely that small children, which seem pretty good with implicature derivation, go through such procedures.[9] Moreover, it fails to explain exactly how an implicature is retrieved – the conversational maxims suppose norms according to which implicatures are derived, but these norms are not *justified* in any way – and thus merely shows how "once constructed, it [the implicature] might be confirmed as part of the speaker's meaning" (Wilson 2000: 419). As a matter of fact, it is partly in reaction to the issues faced by Speech Act theory and by Grice's framework that *RT*'s model was built.

These are examples of the kind of arguments used against early pragmatic theories. Nevertheless, my intention is not to get into the details of these debates. I only wish to stress that consensus has not been achieved regarding the vast issue of meaning construction. Since this is the case, and van Eemeren and Grootendorst themselves leave the door open to cognitive insights[10], I would like to see whether cognitive pragmatics can propose an alternative to other pragmatic accounts of interpretation; in this respect, I will consider if a cognitive account such as *RT* can be beneficial to the meaning construction procedures brought forth by *PD*, which in turn

may provide the critical module in charge of argument evaluation that *RT* simply lacks.

### *2.2. Downstream issues*

The second issue I would like to bring up regarding the scope of argumentation studies concerns what happens *after* an argument has been understood and evaluated. In other words, I am interested in the effects (i.e., the 'perlocutionary' effects) of argumentation, hence the label of *downstream* issues.

*PD* does not focus on such an issue. Its posture will certainly explain how argumentation unfolds, list the parameters that have an influence on the argumentative interaction, and specify under which conditions a critical discussion is deemed valid. But it explicitly rejects investigation on perlocutionary effects. The fact that argumentation in *PD* is not conceived as an *online* cognitive process gives evidence of an external approach to language, where language is construed from without (as opposed to from within) the individual, as a social construct whose regulating principles govern people's behaviour in communication. My intention is to see whether this type of approach can host *internal* cognitive insights, by exploring the posture stating that argumentation studies should also explain the effects of argumentation on people's beliefs as cognitive representations. In line with the ambitions a theory such as *RT* nourishes, I am interested here in investigating if *PD* would be able to make an incursion into matters of belief fixation. This interrogation follows from the consideration that *arguing is generally undertaken to convince*, and hence to make people entertain the communicated representations as true beliefs.

Now, intuition would make us expect sound arguments to convince (leading *ipso facto* to belief fixation) and fallacies to fail to do so. But things are far more complicated. As a matter of fact, experience shows us that sound arguments may fail to convince, while fallacies may succeed. Consider the following examples:

(6) Winston: "Why are you washing the potatoes if you are going to peel them anyway?"

Laszlo: "Let me do things my way".

(7) Four million Japanese people cannot be wrong. That was the number of people that rushed to purchase Dragon Quest on its release in Japan. (BBC)[11]

Reconstructing (6), it appears that Winston's standpoint is that Laszlo should not wash the potatoes. This statement is sustained by the argument that dirt comes off the potatoes when peeling them, and therefore follows the conclusion that it is unnecessary to wash the potatoes before peeling them. At first glance, this argument is sound, and could be pretty convincing. But what if Laszlo wants to deal with potatoes the way he was taught to by his parents (i.e., washing them first)? What if he considers that it is more pleasant to peel clean potatoes than potatoes covered with dirt? There is a possibility that these different potentialities could overtake sound argumentation and lead Laszlo to reject the representation yielded by Winston's statement, even though the supporting argument was valid. More generally, it is quite

obvious that belief fixation does not necessarily follow from valid argumentation – simply because many other parameters enter belief fixation/rejection processes – and therefore that there are important nuances to add to the intuitive idea that sound argumentation makes its conclusion convincing.

Conversely, (7) may well not be ruled out as non-convincing, though it exploits the fallacy known as the *bandwagon fallacy*, or *Argumentum ad Populum*. The context is the release of an awaited videogame in Japan. By uttering (7), the journalist is actually communicating positive attitudes as to the game's quality. I can easily imagine that despite being fallacious, this type of argument can weigh in someone's decision to buy the game ("If everyone does, it must be good, so why not buy it too?"). Intuitively at least, it could very well be the case that the mind actually manages these kinds of 'fallacious' arguments as acceptable information, i.e., as somehow valid in the given context. This coincides with the rather trivial idea that the mind does not always follow critical and logical pathways when coming to entertain a belief as true; psychological and sociological studies, such as Milgram's famous experiments on obedience (Milgram 2004 [1974]), or Festinger's work on the notion of *cognitive dissonance* (Festinger 1957) have indeed showed that other parameters can influence people's rational beliefs and behaviour.

This is not to say that *PD* does not *explain* things; in fact *PD* has two distinct levels of explanation, *micro* and *macro*, in its model of argumentation. *Micro* explanations rest on the norms governing speech act performance and recognition. They are *internal* in the sense that they are supposed to reflect what language users do when communicating, but they are not internal in a *cognitive* sense, since they do not deal with cognitive mechanisms of interpretation. *Macro* explanations (i.e., the rules of the critical discussion) are *external* to language, since they reflect the theorist's regulation of an activity, according to certain philosophical standards. In this sense, the model specifies what argumentation *should be*. Of course, one could claim that knowing the rules that determine sound argumentation should allow us to perform argumentation properly. But establishing a set of rules without reliance on cognitive evidence, as supplied today by numerous studies within the field of experimental pragmatics (see for instance Noveck and Sperber 2004), does not guarantee that these rules reflect what our mind does.

The main difference between both approaches points to one of the principles I wish to link to argumentation studies: addressing cognition entails addressing dynamic aspects of *online* as-we-speak interaction. In addition to dealing with properties of arguments and properties inherent to the procedure of arguing, this would allow for predictions on real-time argumentation to be made, which would be based on *internal* insights. Such is the purpose of a tentative interface between *PD* and *RT*.

## 3. Interfacing PD and RT: towards a cognitive account of argumentation

### *3.1. RT*

Before I begin to discuss the lines along which an interface could be thought of, let me first say a few words about *RT*.

*RT* is a naturalistic mechanistic theory of communication that describes and attempts to explain how meaning is constructed on the basis of contextualised linguistic stimuli. It is naturalistic in the sense that it addresses natural cognitive mechanisms that we humans deploy when processing communicated information. Relevance theorists try to explain the phenomenon of meaning construction, by detailing the processes (contextualisation, enrichment with information the stimulus does not carry itself) that a communicative stimulus goes through in order to achieve its communicative function, that is, the conveyance of speaker meaning. One of the assumptions of this naturalistic approach is that it addresses *actual* phenomena, i.e., mechanisms intervening as we process information.

Communication in *RT* is conceived as a process presupposing an input stage (where the communicative physical stimulus is produced by the speaker and made available to the hearer) and an output stage (where the mental representation is arrived at after the stimulus has been processed). The hearer derives first the logical form of the stimulus, which is a structured sequence of concepts corresponding to its syntactic and semantic structure. A propositional form and other 'explicatures' are then derived, mainly through the disambiguation of the logical form. The mind then takes those conceptual representations as an input, and processes them together with retrievable contextual information, in order to produce implicatures and derive the fully-fledged speaker's intentional meaning. Figure 1 shows how meaning construction works according to *RT*:

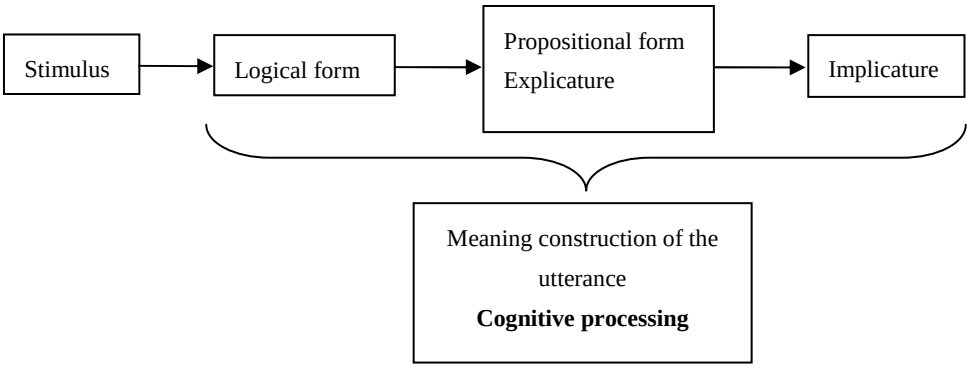


Figure 1. RT's model of meaning construction (simplified).

*RT*'s model treats mental representations almost like material objects that interact with each other according to a step-by-step procedure,[12] thus providing a model of *how* meaning is constructed. Such an account of contextualisation of utterances overcomes the difficulties that a simple code model would have explaining implicit components of information.

In addition to describing *how* communication works, taking into account the underspecification of semantic meaning, *RT* postulates the existence of a relevance engine ruled by an economy principle that explains *why* an output solution, in a given context, is preferred over another. The goal of *RT* is to account for how and why a particular interpretation is derived. According to Sperber and Wilson (1995), the human mind pursues efficiency; whenever confronted with some kind of processing, the hypothesis is that it will privilege, among several possible options, the option that yields the largest quantity of effects for the lowest amount of allocated efforts. In other words, the path the mind will take in processing information is the one that fits best the ratio between the effort required and the anticipated effect. *RT*'s definition of relevance rests on the idea that speaker's intention and speaker's meaning are the same thing, since any utterance carries an *informative intention*, i.e., roughly a propositional content, and a *communicative intention*, i.e., the intention of making the informative intention manifest.

This idea applied to communication leads to the following assumptions: the less effort it takes to derive a representation, the more it is relevant, and therefore the more it is likely to match the speaker's intentional meaning. In parallel, the more contextual effects a representation produces in context, the more it will be relevant, and therefore, the more it will be likely to match the speaker's intentional meaning. Both options evidently convey the idea that the representation with the best ratio between cognitive effort and contextual effect is the one which corresponds best to the speaker's original intention. Sperber and Wilson consider the mind to be "geared towards the maximisation of relevance" (Sperber and Wilson 1995: 266), that is, towards seeking equilibrium to optimise processing.

### *3.2. Interfacing PD and RT*

We have seen that *PD* does not nourish cognitive preoccupations of online processing. My proposal is to explore the possible integration of *PD* and *RT* into a global model of argumentation that accounts for the interpretation, the evaluation and the tentative effectiveness of arguments. Before I proceed, I must set forth that I take *RT*'s architecture as one possible pragmatic candidate – among other pragmatic approaches[13] – for an interface.

One of the problems we might face in this endeavour is that *PD* and *RT* do not address exactly the same minimal units. The first addresses – though in different fashions – both discourses as wholes and single speech acts while the second only deals with single utterances. In effect, we saw in section 3.1. that *RT* looks at things from a *micro* perspective. In order to jump to *macro* considerations, it is assumed that every meaning output of the processing of utterances adds to the context and that it becomes available, as part of the context, for the next representation to be processed, somehow building the *macro* picture progressively (see Reboul and Moeschler (1998) for a discussion on that very point). Even if *RT* cannot at once assess the whole discourse sequence other than through the construction of context (which reflects how communicators proceed as they speak, since they have no access to the whole picture before communication has finished – although this does not mean that they cannot make assumptions about it), this solution could nevertheless be envisaged under the condition that the role and the type of intervention of each theory are well defined. I consequently suggest that an interface could be possible along the following lines:

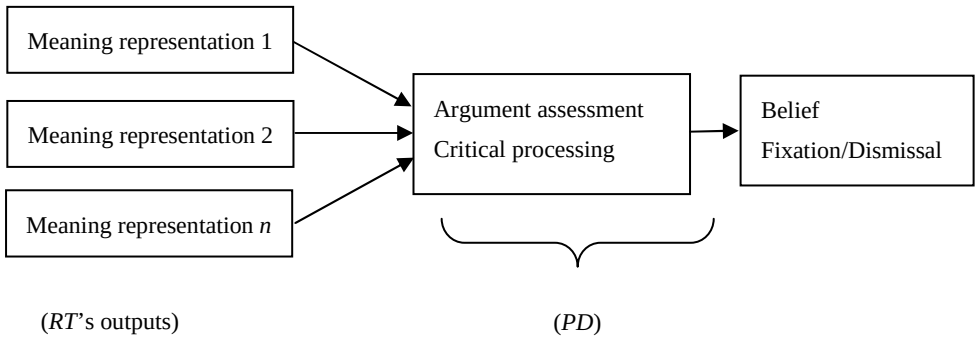


Figure 2. Interfacing PD and RT.

This figure illustrates that *PD* could take *RT*'s outputs as an input for further processing. In such a model, utterance meaning(s), as part of a broader context, become available to be processed by a module of argument assessment. The first consequence of this tentative interface would lead us to add to worries about argument validity in interactive situations more general considerations regarding online discourse processing, while conceiving *PD* as a continuation of the meaning construction process, as shown in Figure 2. The main point here is the insertion of *PD* in a causal chain that models natural speech processing from the perspective of the mental representations an individual can make about the argumentation s/he is dealing with.

Consequently, the upstream issue we expounded earlier, concerning *PD*'s account of interpretation, could thus be thought of differently, by making *PD* exploit the output of meaning construction as detailed by *RT*, or by any other cognitive pragmatic approach to interpretation, as an input for the evaluation of arguments. The assumption underlying this proposal is that individuals, even if they engage in social practices – which function in particular ways, that still ought to be described –, rely on their minds to behave and adapt their conduct in and to the situation. Regardless of its origin, any piece of information is handled by the mind as a mental representation. An account that explicitly deals with cognitive objects is one that provides insights on how one actually manages information, which is (in part) what we are looking for when theorising a critical discussion or any other type of interaction.

The second issue, related to the effects of argumentation, could be addressed by assigning *PD* a central role in what could be called a *critical module* (in line with Chilton (2005)), whose intervention would determine if an input representation (i.e., the output of the meaning construction process) is worth integrating the hearer's cognitive environment or not. Examples (6) and (7) illustrated that argument soundness did not necessarily entail belief fixation. The idea is therefore to regard processes of argument validity checking as competitors to other cognitive mechanisms of belief fixation.[14] I suggest that a cognitive account of argumentation should keep in mind two essential questions:

- There is the question of the way the mind processes the information (either critically or some other way). In order to work out the outcome of this confrontation, i.e. an 'arms race' between the critical module and other cognitive

options, the relevance engine could in principle be envisaged, for depending on the features of the representation and the contextual cues available, I assume cognitive processing could be different. These considerations can call upon cognitive models such as Petty and Cacioppo's *Elaboration Likelihood Model* (1986), which suggests that the mind can process information either by following a 'central route' that involves careful scrutiny of the communicative stimulus, or a 'peripheral route' that focuses on aspects of the message that are distinct from its subject matter. This is also in line with the notion of 'shallow processing' discussed for instance by Allott (2005).

- Then there is the question of the functioning of the critical module *per se*. For this purpose, we need to postulate some kind of calculus supported by governing principles determining whether the argumentative chain is valid or not. This is required to resolve the integration/dismissal of the new representation as a serious candidate for belief fixation. In this respect, there is no reason not to make the criteria used to carry out such a procedure rely on critical rationalist standards (just as the rules of a critical discussion). Argument validity could still be assessed in terms of soundness – with logic *and* situational implications, just as *PD* envisages it. However, the model would gain an additional layer of explanation, since the output of argument evaluation (acceptability/unacceptability) is made available to be confronted to other representations that are already fixed in the hearer's cognitive environment in order to resolve belief fixation/rejection in cognitive terms.

In any case, I should think that the interface of *PD* and *RT* in a dynamic frame of online information processing may provide explanations of the adoption of a representation as a true belief.

This, by the way, would also settle the third issue, that of making possible a cognitive account of argumentation, by integrating *PD* as part of a chain of causal cognitive operations.

## 4. Conclusion: Pragmatics$_1$ vs. Pragmatics$_2$

One of the most salient oddities that emerged as I tried to compare *PD* and *RT* can be summarised in the following question: how can it be that two approaches claim to be *pragmatic*, while they somehow do not talk about the same thing? Before I try to give a partial answer to this question, it is noteworthy to underline that nuances have to be added to this dichotomy, even if there certainly are strong differences between both approaches.

*PD*, in its latest developments (e.g., van Eemeren and Houtlosser's (2005) "Strategic manoeuvring"), has tried to soften the rigidity of the normative agenda of their model in order to make room for considerations about the preferences of communicators and the fact that these can also play a role in 'shaping' the critical discussion on a rhetorical level and in accordance to the speaker's personal interests. This tends to illustrate that the 'critical' vocation of *PD* (in a 'hard' or 'formal' sense)

tends to open up to a 'softer', more pragmatic conception of rationality – to take Dascal's (2005) ideas. On the other hand, cognitive pragmatic approaches such as *RT* have also had to move towards 'soft rationality', in the sense that cognitive models, if only by virtue of the insufficiency of rational criteria regarding prediction of human behaviour, sometimes have to limit themselves to providing justifications of tendencies, and fork from the road to 'philosophical' certainty. Taking this into consideration, it must therefore be said that the boundaries between approaches such as *PD* and *RT* today seem less strict than they were before, perhaps because both theories tend to converge towards a less ideal and rigid conception of rationality.

Be it as it may, the two theories whose interplay I tried to address stand far from a total convergence. One of the reasons of this difference, in all probability, stems from the fact that *PD*'s focus is to an important extent *analytical* and *external* and *RT*'s is *interpretive* and *internal* (see section 2.2. above). This discrepancy has traditionally been characteristic of the tensions observed between pragmatic theories. For discourse analysis accounts that branch out from sociolinguistic traditions and study discourse as a social activity outside the individual, what matters is the structure of discourse and above all the relationships that can be uncovered between its constituents – which range from micro elements such as linguistic entities to macro elements like social practices or power relations between social agents. On the other hand, cognitive pragmatics views discourse as the product of individual mental processes exploiting the stimuli the outside world brings to the awareness of the individual. The reason why this kind of approach is often referred to as positivistic probably follows from the fact that it postulates at a very concrete level that cognition too exploits a causal chain between *events* (or material phenomena) and that it conceives the mind as an input/output processing machine whose functioning can be modelled and, to a certain ideal extent, known.

The social sciences usually consider this type of approach to exclude any type of consideration about social phenomena, precisely because these are not believed to be *material*, in that they easily escape full describability by virtue of their ineffability: you cannot hold a social construct in your hand and describe it like you could describe any physical object. Therefore, according to this view, these objects cannot be known the same way physical phenomena can. However, as things stand, if such social phenomena exist (as I think they do, if only on a representational level), then we can make mental representations and communicate about them. Therefore, why couldn't these representations (or social constructs) take part in cognitive processes – as inputs or outputs – the same way other types of representations do? This is how cognitive pragmatics would probably tackle the problem: social phenomena would be construed as mental representations, not as underlying – and at the same time determining – principles of social interaction.

Even if I may oversimplify the epistemological panorama, the difference I see between $\text{Pragmatics}_1$ (discourse analysis/sociolinguistics) and $\text{Pragmatics}_2$ (cognitive pragmatics) can be expressed with a simple metaphor: the study of language as a picture. Discourse analysis would be something like a still picture, where you are able to make observations, describe the objects in the picture, and make assumptions on the basis of a state of affairs abstracted from its unfolding in time. This state of affairs

is the result of other phenomena that cannot be 'pictured'. Cognitive pragmatics would rather be like a motion picture: it allows looking, upstream, at the causes of a certain state of affairs at a certain time, and, downstream, to make assumptions about the consequences of this state, on the basis of the causal chain that can be witnessed between states.

I am well aware that this kind of metaphor implies several difficulties due to epistemological and methodological preoccupations, and that, as mentioned above, both traditions tend to converge on certain issues, such as their conception of a 'softer' rationality. Of course, resolving this would require further research. For the time being, I shall limit myself to pointing out the fact that the principle of the complementarity between approaches looks fairly addressable. In the case of *PD* and *RT* – and bearing in mind the prospective agenda of a cognitive account of argumentation – I believe part of the solution begins by extending the conception of argumentation as a social practice to a conception of argumentation as a social practice that exploits the participants' *cognitive abilities*, which, due to the present development of experimental research, should not be overlooked.

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Steve Oswald, MA, is a researcher at the University of Neuchâtel. He is working on argumentation and non-cooperative communication for his PhD thesis. From a theoretical perspective, he is interested in finding ways of bridging the gap between speech-act approaches to discourse production and theories of utterance understanding, with particular regard to theories of argumentation, as well as to cognitive theories of belief fixation.

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1 See van Eemeren and Grootendorst (1996: chapters 4, 5, 6) for a detailed discussion of these different traditions in argumentation studies.

2 All these approaches, including *RT*, share the assumption that meaning is *calculated* according to rational cognitive principles.

3 There need not be two *actual* participants, since one can argue by oneself in order to judge the acceptability of a proposition by casting doubt on it and deciding upon reflection whether it is valid or not. However, casting doubt presupposes both a standpoint and its being called into question, and, by extension, it involves two participants (the one holding the standpoint, and the one calling it into question) – even if one of them remains *virtual*.

4 The critical discussion produces an *analytic overview* of the discourse, which is a global picture of the argumentation that took place, divided in four stages: *confrontation* (making the standpoint explicit and accepted as a questionable standpoint), *opening* (the participants manifest themselves as parties – protagonist and antagonist – and determine whether there is a common ground to conduct a meaningful exchange), *argumentation* (participants advance arguments in order to overcome doubts regarding the standpoints), and *concluding* stage (the participants establish whether the standpoint has been successfully defended or not). It must be noted that these stages, except the argumentation stage, can remain implicit, but they have to be made explicit afterwards in the critical discussion in order to assess the resolution of the difference of opinion. See also van Eeemeren and Grootendorst (2004: 57-62).

5 For a discussion of the conditions that have to meet for argumentative speech acts to be felicitous, see Chapter 3 of van Eemeren and Grootendorst (1992, especially p.26).

6 It should be also noted that in some contexts, (4) can be purported to carry a fallacy known as *ad hominem attack*. This consists in introducing irrelevant premises about the proponent, in order to make him, and as a consequence his arguments as well, untrustworthy. This amounts to distract the hearer from validity checking of the arguments, which is a also fallacious move.

7 One could object that classical logic already addressed these issues, notably when dealing with fallacies shifting or reversing the burden of proof (that is, making your opponent prove that your own statement is wrong instead of proving yourself that it is right). The contribution of *PD*, however, is to be sought on the discursive level, to the extent that their study of argumentation broadens its scope to sociological considerations. Argumentation, as a social practice, is analysed as an *event* with social conditions of production, and therefore in relation to its context.

8 Grice's "working out schema" for conversational implicatures:

(a) He has said that p.
(b) There is no reason to suppose that he is not observing the maxims, or at least the CP [= Co-operative Principle].
(c) He could not be doing this unless he thought that q.

(d) He knows (and knows that I know that he knows) that I can see that the supposition that he thinks that q is required.
(e) He has done nothing to stop me thinking that q.
(f) He intends me to think, or is at least willing to allow me to think, that q.
(g) And so he has implicated that q.

(Taken from Wilson (2000: 416). Also found in van Eemeren and Grootendorst (1984: 120)).

[9] See Wilson (2000 and 2003) for a discussion based on evidence from psychological experimentation involving children. Wilson quotes, among others, Bretherton (1991), Newcombe and Zaslow (1981), Tomasello, Farrar and Dines (1983), O'Neill (1996).

[10] See above, Introduction.

[11] Taken from "Dragon Quest fires up gamers", article by Seth Goolnik, April 14, 2006. Found at http://news.bbc.co.uk/1/hi/technology/4907668.stm.

[12] This brief summary of *RT*'s conception of communication and meaning construction leaves room for two remarks that the scope and purpose of this paper will not let us develop extensively, but that deserve to be mentioned. First, it must be said that these processes are not believed to be necessary reflexive – or to a certain extent conscious – by RT theorists, because they refer to what we actually do every time we communicate with someone, without even thinking about it (it would not be plausible to claim that we process all utterances by, for instance, literally asking ourselves the question of disambiguation; we just know how to disambiguate an expression, without necessarily having to do it step by step). So these can be unconscious processes, unlike cases where we consciously use our cognitive resources to process information, for instance when we hesitate between two decisions and we list the advantages and disadvantages of each in order to pick the most suitable one.

Second, when we describe a step-by-step procedure that unfolds over time, such as the one depicted in Figure 1, the question of the temporal order of the stages comes up. In other words, when dealing with a multi-stage process, we should ask ourselves if these stages are consecutive in time, or if they can be partly parallel, if not simultaneous. According to Saussure (2005), the different levels of interpretation could be deployed in parallel, aiming at a coherent set of representations which reinforce each other mutually. As he points out, "a strong implicature strengthens the hypothesis that the propositional form and other derived explicatures are correct, and in turn these strengthen the assumption according to which the 'syntactical' interpretation, i.e. the construction of the logical form, indeed corresponds to the speaker's meaning" (Saussure 2005: 114; my translation).

[13] See the Introduction of this paper.

[14] Here it should be noted that this idea leaves open the question of the status of the critical module. It surely constitutes one way for the mind to decide whether to fix a representation as a stable belief, but does not seem to be the only one: people can believe, among other reasons, because they trust the speaker, because they have some kind of dogmas, or even because they don't think it's worth spending much effort in critically evaluating the information they are confronted to, whatever the reason.