The function of negation in argumentation*

Denis Apothéloz, Pierre-Yves Brandt and Gustavo Quiroz

Argumentation is considered here as discourse that involves arguments, defined as reason(s) – conclusion pairs. In an argument, reasons are oriented in favor of the conclusion. It can happen that an argument is used to argue against the conclusion of another argument. This article is devoted to this negative aspect of argumentation, which has seldom been studied elsewhere. After insisting on the dialogical dimension of every argumentation, the hypothesis is developed that an argument is accepted only if the reasons it provides seem plausible, relevant, oriented in favor of the conclusion, and sufficient to support it. An attempt is then made to show how an argument can be refuted by objections to any one of these parameters. In particular, these modes of counter-argumentation are studied from the point of view of their effects on the conclusion. Finally, other procedures of negative argumentation are presented that are not, strictly speaking, counter-argumentations, for they do not directly concern the reasons of the disputed argument. This is the case of discrediting an opponent or making a claim of misunderstanding.

1. Introduction

Differing points of view among interlocutors with regard to certain opinions, representations or intended actions are one cause of linguistic interaction. Confrontation in dialogue may then lead to analysis and development of the views stated, or to awareness of the respective positions and development of new points of view. These processes are often present when discourse and its contents have an argumentative character. Regardless of whether the interlocutors maintain their positions or one or the other attempts to minimize the differences, what they say will inevitably involve positive and negative elements of argumentation, i.e. attempts at justification on one side and attempts at rejection on the other.

The publication in 1958 of the *Traité de l'argumentation* by C. Perelman and L. Olbrechts-Tyteca was a major contribution to contemporary discussion

of argumentation and of the relationship between rhetoric and language. By reviving the Aristotelian tradition and rehabilitating rhetoric as an area of philosophical and epistemological discussion, this work gave new impetus to research into persuasive aspects of discourse. Furthermore, the development of pragmatic linguistics, particularly in France with the works of Ducrot and Anscombre (Ducrot et al. 1980, Anscombre and Ducrot 1983), represented an important attempt to take argumentation out of the domain of philosophy and logic, with which it has traditionally been associated, in order to make it the object of a strictly linguistic study. Other works have also had an impact, especially those using the theory of speech acts (Van Eemeren and Grooten-dorst 1983) and the so-called natural or informal logics (Borel et al. 1983; Grize 1982, 1990; Fogelin 1982).

It is important to notice, however, that the great majority of these studies center exclusively on justificatory aspects of persuasive discourse, and seldom give more than marginal attention to negative argumentation. Van Eemeren and Grootendorst have sought to account for this by referring to certain philosophical and epistemological *a priori* theses, an attitude which they have called 'justificationism'. The exclusion of negative aspects is probably also a result of the preference generally given to a monological rather than dialogical approach to argumentation. In any case, it must be recognized that argumentative behavior is always motivated to a certain extent by the anticipation of a disagreement or an objection, and that consequently, whether it be monological or dialogical, it is intrinsically polemical.

The purpose of this article is to consider certain negative aspects of argumentation, and in particular to present a general framework for the study of counter-argumentation. The main points may be summarized as follows:

(1) We clarify a certain number of fundamental concepts, such as those of negative argumentation and counter-argumentation, of argument and counter-argument, of conclusion and reason, of argumentative orientation and argumentative negation.

(2) We show that this conceptual framework constitutes a methodological instrument for the empirical study of counter-argumentation in polemical dialogues (identification and analysis of counter-argumentative sequences).

(3) We show that the operation of argumentative negation associated with every counter-argument may involve four parameters of the arguments, thus making it possible to define four categories of counter-arguments. Our thesis is that there is a limited number of different kinds of counter-argumentative behavior; these may be compared with what Wittgenstein (1953) referred to by the term 'language games'.

(4) Finally, we suggest that our approach can lead to a formal representation of the mechanisms of argumentation and counter-argumentation.

2. Argumentation, argument, conclusion, and reason

The many works devoted to argumentation since the publication of the *Traité de l'argumentation* of Perelman and Olbrechts-Tyteca reveal widely varying interests and preoccupations, so much so that it is not always easy to compare their ideas and results. There are in fact very few points in common between a purely rhetorical approach such as that of Perelman, a linguistic approach such as that of Ducrot, and an approach that attempts to combine a logical perspective with the theory of speech acts, such as that of Van Eemeren and Grootendorst. Unlike Perelman, we do not seek to give a general theory of argumentation; our goal is on the contrary to impose certain limits on what ought to be called argumentation, in order to give ourselves the means to present a homogeneous set of mechanisms. Our perspective can also be distinguished from that of Ducrot and of his school, for whom the study of argumentation consists first of all in a study of language itself, and only secondarily of its uses. We shall, however, borrow the concept of argumentative orientation from these authors; for it seems entirely fundamental to any characterization of the nature of the internal cohesion of arguments.

The interest of the approach developed by Van Eemeren and Grootendorst appears to be due mainly to the fact that it grants a central place to conversational and polemical forms of argumentation. These authors may be criticized, however, for underestimating the fact that certain uses of argumentation aiming at refutation do not begin with a well-defined opposing point of view, but merely indicate a refusal to accept a given point of view. Furthermore, since Van Eemeren and Grootendorst link negative argumentation closely to dialogue, they do not devote sufficient attention to the fact that procedures of negative argumentation may also be present in monologue, especially when the speaker anticipates certain objections of his intended audience. Procedures of negative argumentation in monological discourse contribute, among other things, as Perelman and Olbrechts-Tyteca (1969) have pointed out, to the process of adapting to the audience. This phenomenon is comparable to what Anscombre and Ducrot (1983), in their study of polemical negation and of the connective 'but', describe by means of the notion of polyphony.

For us, argumentation is a particular mode of discursive interaction, characterized both by the nature of the goals being pursued (an alteration of the opinions, attitudes, or behavior of the audience), and by the nature of the means put to use (a discourse presenting characteristics of a certain rationality, able to accommodate certain criticisms, and whose form tends to result from a specific structure, namely an *argument*). An argument may be defined as a discursive sequence made up of a *conclusion* and of one or several *reasons* presented in favor of this conclusion. The person giving an argument thus attributes a certain *argumentative orientation* to his or her reasons; these are

directed *toward* the conclusion. When an argumentative discourse is produced against an argument, we shall call it *anti-oriented* relative to the conclusion of the latter. When an argument is accepted or does not encounter any particular objection, the movement that goes from the reason to the conclusion may be described as the transfer of an *epistemic modality* of the reason onto the conclusion (Quiroz 1989).

Compared to other argumentative procedures, an argument, as a form of discourse, presents the following characteristics:

(1) First, an argument occurs at the level of propositions (as opposed, for example, to that of nominal expressions); a complete argument expressed by purely linguistic means involves the production of at least two propositions. This is why it is possible to treat the concept of argument within speech-act theory (Van Eemeren and Grootendorst 1983).

(2) Second, the mode of articulation of these two propositions is not arbitrary; one (the reason) is given as the *justification* of the other (the conclusion). Since the aim of the operation of justification is to underscore the truth attributed to the conclusion, these two propositions must in principle be produced with *assertive* illocutionary force.

(3) Third, unlike other procedures, an argument is characterized by a high degree of explicitness; it is a procedure that is supposed to be rational and open to objection, so that it functions in conversation as a "device for regulating disagreement", in the words of Jacobs and Jackson (1982: 224).

(4) Finally, the concept of argument can be considered from two different points of view: on the one hand as the result or *product* of discursive activity, on the other as a particular kind of *operation*.

As a product, an argument may be subjected to various procedures of evaluation, of validation, or of objection. The relation that makes it an argument, i.e. its internal cohesion, is often based on *topoi*, or on what Toulmin (1958) calls a 'warrant'; analysis can attempt to make these factors explicit. Since argument-products are often incomplete (especially in conversation), making them apparent may involve operations of reconstruction.

As an operation, however, an argument first appears as the act of giving a reason, in other words as an act of justification.

From the standpoint of analysis, but also from that of interlocutors engaged in a dispute, recognition of an argument-product necessarily involves that of an argument-operation; in other words, it involves the recognition and the localization, in the chain of discourse, of the intention to justify. Whereas an argument-product may be more or less incomplete, or even totally implicit, an argument-operation has either been carried out or it has not; it is either recognized by the person for whom it is intended, or it is not.[1]

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[1] For detailed discussion of different interpretations of the concept of argument, see O'Keefe (1982), Shahin and Kess (1991).

3. Counter-argumentation and dialogue

Let us return now to what we said of argumentative orientation. When two discursive fragments focus on the same object and are argumentative in nature, it is possible to determine whether they agree or disagree. Agreement corresponds to the argumentative co-orientation of the two fragments, disagreement to their anti-orientation. An argumentation will thus be called anti-oriented if it takes up another argumentation (explicit or presupposed in the discourse) in order to oppose it. The simplest case is the one in which one argumentation immediately follows another and refutes it. The goal of the first argumentation is to cause a certain conclusion to be accepted by the intended audience. This may be called *positive argumentation*, since it is oriented in favor of its conclusion. The second argumentation, the one that refutes, will then be called *negative argumentation*, since it is oriented against the conclusion of the first argumentation.

Two remarks must be made at this point. First, what we have described here is the simplest case. For it is not necessary that a negative argumentation follow immediately the argumentation to which it is opposed. To say that one argumentation *follows from* an argumentation that precedes it is merely to suppose an anaphoric connection between the negative argumentation and a previous argumentation. The argumentation is negative only inasmuch as it focuses on a previously stated argumentation in order to oppose it. In a monologue, reference to the object of the opposition may be introdueed by expressions such as 'it has been said that ...', 'some people claim that ...', and so on. Many instances of what is called 'monologue' are, as a matter of fact, dialogical in nature.

The second remark has to do with the status of being negative. To say that an argumentation is negative does not mean that its only function is one of opposition. With respect to an argumentation that defends a given point of view, we may very well imagine another argumentation that defends an alternative point of view. This second argumentation will be negative only if it implies the rejection of the point of view to which it is proposing an alternative. In other words, to qualify an argumentation as negative is to limit consideration to certain of its aspects only, in this case those that make it the expression of an argued opposition.

Now let us reconsider what we have said of the connection between argumentation and argument in order to see how it may be characterized in the case of negative argumentation. We stated above that a discursive fragment oriented in favor of a conclusion may be said to be argumentative if it involves at least one argument, i.e. a reason-conclusion pair. Obviously enough, this definition of argumentation applies just as much to positive as to negative argumentation. It expresses the essential fact that argumentation is a particular type of discourse that seeks to obtain agreement by means of arguments.

Negative argumentation is thus a discourse that opposes a previous discourse (and the point of view that it defends) by producing arguments. Now this opposition can come about without disputing the arguments, as such, of the previous positive argumentation. For example, criticism of the author of an argumentation (for example by means of an *ad hominem* argument) may constitute a negative argumentation even though, strictly speaking, it does not concern the arguments that have been made. We shall return to this point in more detail later (cf. section 5). For now, let us simply consider the cases in which argumentation is negative precisely because it attempts to refute the arguments made in a previous positive argumentation. Consider an argument given in favor of the main conclusion of the positive argumentation. This argument involves one or more reasons whose function it is to support this conclusion. A negative argumentation may refute this argument, i.e. attack the reasons that it uses. The act of *refutation* makes use of an operation that we have called *argumentative negation*, the result of which is to operate on the argumentative orientation of the discourse in order to reverse it. Refutation corresponds to the particular case in which this operation is applied to an argument. The result of this refutation is the construction of a new argument, anti-oriented to the preceding one, i.e. oriented in favor of the negation of the conclusion of the disputed argument, or in favor of a negative modality of this conclusion. We shall call the new argument obtained in this way a *counter-argument*, since it is constructed from an argument, but counter to it. Consequently, the term *counter-argumentation* will designate any negative argumentation that takes as its object the arguments of the positive argumentation in order to counter them, i.e. any argumentation that makes use of counter-arguments.

Until now, we have carefully avoided taking into consideration the role of the speaker who produces an argumentation; in other words, we have left aside the whole question of the responsibility taken for the discourse by the person giving it.

Let us consider the case of a single speaker who defends a point of view by means of arguments. This speaker is involved in a process of justification; if he accepts all the arguments that he uses, he is involved in an attempt at *positive justification* of the thesis that he adheres to. In this procedure, he may, however, without taking back anything he has said, also bring up arguments with which he does not agree; for he may strengthen his demonstration by refuting opinions he does not share. This can be a good way of preventing certain objections. In this case, the process of justification uses counter-arguments: it is a *justification by negation* (Brandt 1989b).

This argumentative procedure consists in attributing responsibility for the opinion that one does not share to some other person – or, conceivably, to oneself, at a previous time: "until now I thought that ..., but now I reject this position because ...". The use of counter-arguments in a monological

discourse thus introduces a polyphonic dimension (in the sense of Ducrot et al. 1980), or a dialogical one (in the sense of Bakhtin (see Bakhtine 1977; Vološinov 1973)): it is not one opinion, one voice, but two opinions, two voices that are being heard. Moreover, these two voices are in disagreement. Counter-argumentation, as a mode of negative argumentation, is therefore a particular kind of discursive expression of a disagreement between two speakers. On this view, the paradigmatic framework for the production of counter-argumentation (like that of any negative argumentation) may therefore be described as that of polemical exchanges where at least two speakers confront each other, the polemical exchanges themselves being included in the larger framework of conversational exchanges (or dialogues). Figure 1 illustrates these relationships.
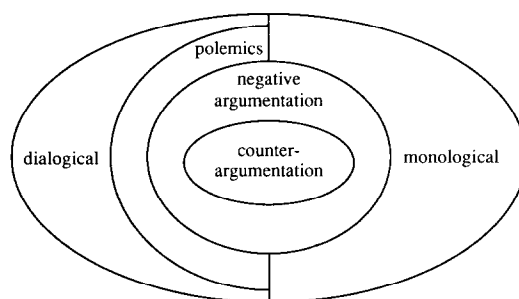

Fig. 1

4. Plausibility, completeness, relevance, and orientation

Informal logic attaches special importance to the concept of argument in the sense in which we defined this term above. In his presentation of this logic, Fogelin (1982) distinguishes three main functions of an argument: (1) to establish a truth by giving a proof or a justification, (2) to refute or to criticize, and (3) to give an explanation, i.e. to seek to understand why something is true. With respect to point (2), this author distinguishes two types of procedures for refutation: those that consist in rejecting as false or doubtful a reason put forward, and those that consist in arguing that the conclusion cannot be established on the basis of the reason that has been given. The latter procedure amounts to declaring the argument invalid, in other words to rejecting the existence of a connection between the two parts of the argument. Fogelin also notes that in order to refute, an argument does not necessarily need to prove the opposite of the conclusion that it attacks; a refutation is sufficient if it consists in presenting an objection.

In his work on the pragmatics of refutation, Mœschler (1982) points out a third type of procedure for refutation which consists in an explicit rejection of the conclusion of the argument, a rejection which may in turn be supported by new reasons.[2] Here are the examples given by this author of the three modes of refutation (pp. 133 sqq.).

Consider argument (1), which can be counter-argued by (1a), (1b) or (1c):

(1)   Anthony is at home.
      There is light from his window.
(1a) That's not possible, because he's on vacation.
      It must be his girlfriend who's there.
(1b) That is not his window where the light is,
      but his neighbor Louis's.
(1c) You know that Anthony is absent-minded.
      He may have forgotten to turn off the light before leaving.

According to Mœschler, example (1a) illustrates explicit refutation of the conclusion, a case which is not taken into consideration by Fogelin. It will be noticed that in this example the truth of the fact given as a reason ("There is light from his window") is not disputed; it is upheld and even explained ("It must be his girlfriend who's there"). The issue is whether it is a sufficient reason for the conclusion "Anthony is at home". In example (1b), however, the refutation involves the reason, which corresponds to the first type of refutation described by Fogelin. Here, the refutation is followed by a rectification. Finally, in (1c), the refutation concerns the relevance of the relation between conclusion and reason: it is possible that Anthony is not at home and nevertheless that there is light from his window. In this example, as in (1a), a new reason is given (the fact that Anthony is absent-minded); here it aims at supporting the judgment of irrelevance concerning argument (1). The second type of refutation described by Fogelin will be recognized in this example.

These analyses call for further clarification. In the first place, examples (1a) and (1c) each involve, unlike (1b), several distinct procedures. In (1a) there is a refutation of the conclusion ("That's not possible") as well as two new pieces of information that are anti-oriented to the conclusion of the disputed argument ("Anthony is on vacation" and "It must be his girlfriend who's there"). According to us, only these two pieces of information have a counter-argumentative value, the refutation of the conclusion ("That's not possible") having no effect by itself on the properly argumentative aspect of the discourse. Example (1c) rejects the relevance of the relation between the conclusion and the reason, and provides new information that is anti-oriented

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[2]   The conclusion and the reason are called 'assertion act' and 'justification act', respectively, by Mœschler (1982).

to the conclusion of the disputed argument ("You know that Anthony is absent-minded"). In this example, each of these procedures has in itself, i.e. independently of the other, a counter-argumentative value. It therefore seems important to distinguish them.

In the second place, some examples of rejection of the relevance of the conclusion-reason relation given by Fogelin suggest that he puts very different types of counter-argumentations into this category; these may even be reversals of the meaning of the argument, as when the person contradicting asserts that the reason given actually pleads in favor of the negation of the conclusion that it was aiming to defend. Here again it therefore seems necessary to pursue the analysis a little further.

The analysis of counter-argumentation that we are proposing forms part of an approach similar to those that we have just examined. It is, however, distinct from them in that we have chosen to limit ourselves to purely counter-argumentative phenomena (which is why simple refutations of the conclusion have been excluded), and also because of our intention to give a precise account of certain categories. A study of counter-argumentative procedures in polemical dialogues (Brandt 1989a; Apothéloz et al. 1989) has led us to single out four main ways of refuting an argument:

(i)   By disputing the *plausibility* of the reason or of one of the reasons used. This case corresponds to Fogelin's first type of refutation, and to Mœschler's second. The first part of example (1b) is an illustration.

(ii) By bringing up a reason that has not yet been used, that is anti-oriented to the conclusion of the rejected argument, and that is presented as being more decisive than the reason(s) of this argument. This procedure amounts to disputing the *completeness* of the reason(s): these do not take all the aspects of the problem into consideration, in particular the most decisive ones. This case is mentioned neither by Fogelin nor by Mœschler, even though examples (1a) and (1c) mentioned above present such a phenomenon, as we have already pointed out.

(iii) By disputing the *relevance* of the reason(s) with respect to the conclusion that is asserted. This case corresponds to Fogelin's second type of refutation, and to Mœschler's third. It is illustrated by the second part of example (1c).

(iv) By disputing the *argumentative orientation* that the speaker has attributed to a given reason, and by affirming that this reason is actually oriented toward the opposite conclusion. Neither Fogelin nor Mœschler mentions this procedure.

These four categories of counter-arguments reflect four constituent parameters of every association of a conclusion and a reason in an argument that is valid or accepted as such: plausibility, completeness, relevance, and argumentative orientation. In a counter-argumentation, each of these parameters can be disputed independently of the three others. Similarly, accepting an argu-

ment amounts implicitly to recognizing that the given reasons are plausible, complete, relevant, and oriented toward the conclusion (Apothéloz 1989).

Now let us consider four paradigmatic examples of these four categories of counter-arguments.

(i)   *Counter-argument concerning the plausibility of the reason*
(2)   Mary was in a very bad mood.
      She didn't smile all evening.
(2a) Mary? She didn't stop laughing.

(ii) *Counter-argument concerning the completeness of the reason*
(3)   You should buy the same car as Peter.
      It is extremely comfortable.
(3a) It is much too expensive for me.

(iii) *Counter-argument concerning the relevance of the reason*
(4)   I am not going to take this exam.
      I didn't prepare for all the questions.
(4a) Just because you didn't prepare for all the questions is no reason not to take the exam.

(iv) *Counter-argument concerning the argumentative orientation of the reason*
(5)   "A World Apart" is not a very good film.
      It doesn't teach us anything new about apartheid.
(5a) That's precisely what makes it good.

Examples (2), (3), (4) and (5) are arguments given in the order conclusion-reason. Each is the object of a particular type of counter-argumentation, i.e. of an objection having to do with the argumentative dimension of discourse.

Reply (2a) is an objection to the plausibility of the reason "Mary didn't smile all evening". This reply does not dispute the completeness of the reason: it concerns only what has already been said. Nor does it dispute the relevance of the reason: it does not deny that from the absence of Mary's laughter we may conclude that she is in a bad mood. Nor does it dispute the argumentative orientation attributed by the speaker to the absence of laughter.

Reply (3a) proceeds by introducing new information that is presented as being a more decisive reason than that of the disputed argument. It could be paraphrased as follows: it is true that Peter's car is comfortable (no objection to the plausibility of the reason) and that comfort may be a reason to buy a car (no objection to the relevance and to the argumentative orientation of the reason), but this reason is not sufficient to make me decide on buying; let me point out a fact that is more important to me than comfort, and that you have forgotten to consider, namely the high price of the car (objection to complete-

ness). Since the reason in favor of the disputed conclusion is not rejected, this type of counter-argumentation raises the complex problem of the type of relation that can occur between two reasons that are true and, at the same time, of opposite argumentative orientation, i.e., in this case, comfort and price. The acceptance or refusal of the counter-argument by the speaker of (3) will depend primarily on the weight he attaches to each of these reasons (Brandt 1989a). But two cases must be distinguished here:

(a) the case where the new reason (that of the counter-argumentation) is presented as being independent of the reason of the disputed argument, as in response (3a);

(b) the case where the new reason is explicitly brought into relation with the reason of the disputed argument, for example as an *explanation* for it. Examples (1a) and (1c), discussed above, illustrate this second possibility.

Reply (4a) could have been formulated differently, for example: "It doesn't matter that you didn't prepare for all the questions", or "OK, you didn't prepare for all the questions. So what?". These different ways of saying the same thing show that what is at stake here is the relevance of a certain fact (that not all the examination questions were prepared for) relative to a universe of discourse (should the examination be taken or not?). This counter-argument does not dispute the plausibility or the completeness of the reason. Nor does it reverse the argumentative orientation. All that it does is to refuse to grant the status of reason to a certain fact, in which, consequently, no particular orientation is recognized.

Reply (5a), on the other hand, is directly concerned with the argumentative orientation of the reason, and *reverses* it; it uses the same reason in order to reject the same conclusion. The procedure thus consists in reinterpreting the information contained in the reason, which is why in most cases the latter must in turn be argued. The relevance of the reason is not disputed here; in fact, it is explicitly re-used. The plausibility and completeness of the reason are not disputed here either.

These examples illustrate counter-arguments focusing selectively on one of the four parameters that we have distinguished. Of course, a counter-argumentation may focus on more than one parameter at a time. Thus, example (1c) discussed above uses an objection having to do with completeness (the opponent points out that Anthony is absent-minded) and an objection concerning relevance (the light being on is not relevant for deciding whether Anthony is or is not at home), the first objection being presented as a reason for the second.

5. Misunderstanding and discrediting

While the four modes of negative argumentation described above are called

counter-argumentation because they are forms of refutation that can only bear on arguments, there exist other modes of negative argumentation that can take up not only arguments but also other types of statements. Such are forms of dispute that apply to non-argumentative parameters of the disputed discourse.

Consider example (6), taken from Van Eemeren and Grootendorst (1983: 5). A speaker could reply to this statement by (6a).

(6)   Women have a logic of their own.
(6a) I certainly don't define logic the same way as you.

This remark makes no statement concerning the reasons that might have led to the conclusion "Women have a logic of their own", or the connection between these reasons and the conclusion. Instead, it concerns the interpretation of the *discursive objects* used by the speaker to schematize his thought (cf. Borel et al. 1983). It would be the same if (6) were followed by (6b).

(6b) It's not logic that you're talking about
       (but sensitivity, or cultural conventions).

In each case, the disputant gives reasons for not being convinced by, and even for opposing, the proposed thesis. His remarks are thus argumentative and negative. It is not, however, the opponent's reasons that are directly disputed here, but preconditions to their construction: the definition of the objects of discourse. In order to be able to argue with and convince an interlocutor, it must be assumed that one is using the same language as he; Perelman and Olbrechts-Tyteca (1969) speak in this respect of the "community of minds". In the examples given above, the disputant claims that he and his interlocutor do not understand one another because, in some sense, they do not speak the same language. In a more general way, we will call this kind of objection a *claim of misunderstanding*.

An even more radical form of dispute is *discrediting* (cf. the so-called *ad hominem* and *ad verecundiam* arguments). One could reply to remark (6) by (6c), (6d), (6e) ...

(6c) I'm not here to talk about that, but about your last concert. Now tell me about ...
(6d) You don't know anything about that. You should just keep quiet about such things.
(6e) We are unable to form an opinion about that just now.

... or, to someone who is emotionally shaken, or who has been drinking, by (6f) ...

(6f) How could you have clear ideas in your condition?

... or, if it is the speaker who brings up his troubled state, by (6g).

(6g) Can't you see that I'm in no condition to listen to you now?

In each case, the opponent discredits his interlocutor by accusing him of not respecting certain rules of verbal communication: the subject of the statement is not the one agreed upon (6c), the interlocutor is not in a position to give an opinion (6d) or circumstances do not allow him to do so ((6e), (6f) or (6g)). We have argued elsewhere that some kinds of discrediting consist in calling into question a condition of satisfaction of the illocutionary act accomplished by the conclusion, and that an argument the conclusion of which accomplishes a non-assertive illocutionary act (a pseudo-argument) can be refuted only by calling into question a condition of satisfaction of this act (Apothéloz et al. 1992).

Clearly, a misunderstanding or discrediting may lead to something that is not at all argumentative, as for example an invitation.

(7)   I invite you to come skiing with me.
(7a) It's not skiing that I want, but rest.
      (claim of misunderstanding)
(7b) Who do you think you are?
      (discrediting)

It is impossible to go from (7) to a counter-argumentation, because there are no reasons to be argued against. Still, when a claim of misunderstanding or discrediting leads to a thesis (such as "Women have a logic of their own"), it may have a function of argumentative opposition. By undermining the discursive or communicational foundations of the stated conclusion, the opponent destroys it without dealing with the reasons that support it.

Let it be noted that this type of response assumes that the person who makes use of it is actually in a position to point out a misunderstanding or to discredit his interlocutor.

6. Conclusion

It is time to summarize the results of these few pages. First of all, by distinguishing linguistic negation in the broad sense from negation as an operator of argumentation, we have shown that negation with an argumentative function is not necessarily characterized by the occurrence of a negation on the morphosyntactical level. (Conversely, not every negative morpheme

has an argumentative function of negation.) This being clear, we have sought to describe how negation operates on the level of argumentation; we have suggested, in particular, that it reverses the (argumentative) orientation of discourse. Accordingly, if every argumentative act may be described as the production of reasons for or against a conclusion (thesis), *positive* argumentation is that which aims at getting the conclusion accepted, i.e. at concluding, whereas *negative* argumentation aims at rejecting the conclusion, i.e. at preventing the debate from closing. Positive argumentation thus tends to close the debate, whereas negative argumentation revives it and stimulates openness.

We then distinguished two broad categories of negative argumentations: those, on the one hand, that attack the reasons that can be or have been formulated in favor of the thesis (counter-argumentation), and those on the other hand that refer to more general parameters of discourse by attacking the very conditions of discourse (claim of misunderstanding) or those of communication (discrediting). Furthermore, we distinguished four types of counter-argumentation according to whether it focuses on the plausibility, relevance, completeness, or orientation of the reasons of the disputed argument. Figure 2 summarizes the various forms of negative argumentation described in this article.
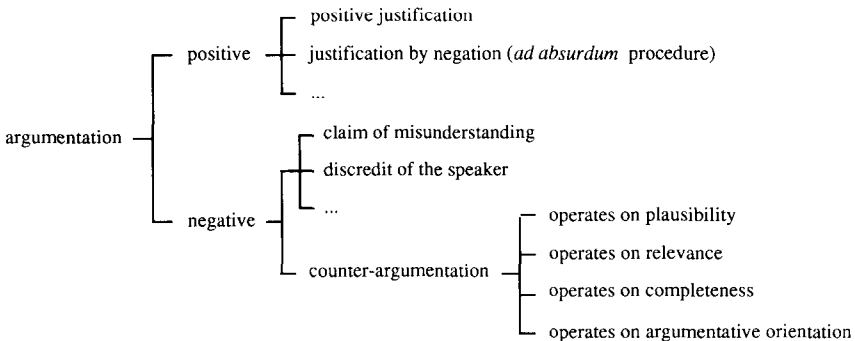

Fig. 2

In conclusion, we shall indicate the direction we think extensions of our work might take. If, as we have attempted to show, argumentative negation can be described as an operator applicable to various parameters of argumentative discourse, this would suggest that a calculus involving this operator ought to be possible. We are therefore looking into the possibility of developing a symbolic representation that would lead to a formalization of negation in argumentation (for a first attempt in this direction, see Brandt et al. 1991).

If successful, such a project could be given important applications in artificial intelligence and the formalization could be extended to other argumentative operators.

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