Reconstruction in Criticality:
A Discussion on Questions, Assumptions, and Interpretation

Andrés Mejía D.
University of Hull

Abstract

Alternative claims, theories, or worldviews have been said by authors like Paul and Missimer to be necessary for critically assessing a claim or set of claims. In this paper I argue for a view of assessment and interpretation as already necessarily involving the recognition of alternatives. I further claim that as long as critical assessment involves the disclosure of hidden assumptions, these can only be found in the conversational interaction between alternative claims or sets of claims. The conclusion is that these assumptions cannot be considered entirely as properties of the claims being examined, and instead are to be located in the conversational interactions between them and the interpreter's brought forth alternative claims or beliefs. Based on this, the outline of partial aspects of a conversational form of criticality is presented.

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Introduction

In the critical thinking movement criticality has frequently been associated with a skill, or set of skills, and the corresponding disposition or dispositions, for the correct assessment of claims or sets of claims. Different authors, however, seem to emphasise different expressions of knowledge as the central object of analysis when talking about critical thinking: For instance, traditionally what has been taken as the object of analysis is single claims or propositions and the set of sentences which constitute a basic unit of argument in support of it (as exemplified in numerous textbooks like Scriven, 1976; Halpern, 1984; Toulmin, Rieke and Janik, 1984; etc.). For other authors, it is larger beliefs systems referred to with expressions such as *worldviews* (see for example Langsdorf, 1994, and Paul, 1992). Yet another question which has inspired some discussion is whether this assessment of strength or soundness can or should be made of individual arguments in isolation, or dialectically in comparison with alternatives available at a given time (see Missimer, 1989 and 1995; Paul, 1994). This second option is what I will term a conversational encounter between beliefs systems.

In this paper I attempt to present a contribution in some aspects which seem to be particularly relevant for critical thinking as one possible and desirable result of a conversational encounter between systems of claims or beliefs. Specifically, I will examine the notion of *assumption* in its relation to *understanding* and *interpretation*,[1] being one central thesis of this paper that hidden assumptions of an argument are not elements entirely contained in it and which can be discovered with the systematic use of some sort of method. Instead, I argue, they can emerge from conversational encounters between beliefs systems if certain conditions are present. Nevertheless, throughout my argument it shall be clear that my stance towards the question associated with the distinction between assessing knowledge claims individually and assessing them comparatively is that it cannot intelligibly be made in a sharp and precise way. The differences between them, I will argue, seem to be more of degree than of category. But I will only be applying this claim to the *theoretical* notions of individual assessment and comparative assessment and not to the *methodological* proposals by various authors. These methodological proposals may still be qualitatively different; but if my analysis is correct, their difference should not be described in terms of individual and comparative assessment. Furthermore, as I will attempt to show, the two general issues mentioned in the first paragraph—about the [proper] object of critical inquiry and about the need for alternatives—are linked to each other so that exploration and development of an answer to the first question is not independent from exploration and development of an answer to the second. In other words, the object of inquiry's *size*, so to speak, ranging from individual sentences to worldviews, depends on the degree of the differentiability of the alternatives in comparison with the piece of knowledge in question; *and vice versa*.

The adoption of a dialectical approach in critical thinking seems to imply that the answer given to the question "does one need to consider alternatives when assessing the worth of a piece of knowledge?" is in the affirmative. However, once one has given this answer, the difference between addressing the issue in a theoretical and in a methodological way can be seen by what this entails in terms of answering the follow-up question "what exactly does one need alternatives for, when assessing the worth of a set of beliefs or beliefs system?" I take it that proponents of the dialectical approach would respond by pointing out that it is more appropriate, or perhaps more effective, for a number of reasons. But let us notice that this second question seems to suppose that the first one has a sense of prescription,

or recommendation, in the sense that it would be a matter of choosing between courses of action. Indeed, this was a question in the domain of the methodological. My answer to the first question is also in the affirmative, but with a sense of inevitability; that is, I will argue that alternatives are already considered in the act of interpretation of some piece of knowledge, and that its critical examination necessarily takes into consideration these alternatives. The question about what methodological strategy to recommend is still a meaningful one to ask, but its answer will unavoidably have to make use of alternatives in a sense that I will explain in the paper. In this sense, I am suggesting that alternatives do not play an instrumental role in critical thinking; that is, considering them is not better for some external purpose. Rather, they are inevitably implicated in it via interpretation. This constitutes the first general theme in this paper.

Adopting a non-instrumentalist notion in this way has some implications for the notions of criticality and for the role played by the person performing a critical analysis. One of these is related to the *sources* of the critical questions that one asks of a piece of knowledge when carrying out a critical analysis of it; that is, to how those questions are formulated. Some critical approaches outside of the critical thinking movement have made use of various background theories for providing the sorts of questions with which the hidden assumptions made in a beliefs system or piece of knowledge might be exposed. These theories play in this sense a role of what I shall call a *theory of the critical*, and can indeed help reveal in a beliefs system new elements not explicitly considered before; but they also necessarily put a limit on what criticality can do because they fix what is critically questionable in a piece of knowledge. The limits of the theory of the critical used will become, then, the limits of criticality in practice for those who use it in this way. Different theories in the literature have played this role, including among others a Marxist theorisation of the social and the economic (as in Freire, 1970, and other authors in critical pedagogy), a feminist form of theorisation (as in hooks, 1989), a Habermasian theory of the human knowledge constitutive interests (as in Flood and Jackson, 1991, although not particularly in the domain of education), and a systems view applied to practical philosophy (see Ulrich, 1983, applied to the general problem of practical philosophy). These theories of the critical are only defined for limited contexts within which they are presumably powerful. Within these limits, they tell us with more precision where to look for assumptions, hence providing more help in this sense than, say, that given in the work of the critical thinking movement. But there are prices to pay for this, ranging from the possible irrelevance of these questions in some particular situations, to the blindness to new assumption-disclosing questions that may come from somewhere else. From here a second central theme for this paper emerges, as the examination of the issue of where the sources of these critical questions that one asks of a piece of knowledge or beliefs system can or should come from.

This theme will be expressed in two ways: first, the analysis of the possibilities of a non-instrumentalist non-restrictive form of criticality; and second, the formulation of the basic elements for a proposal which abides by these criteria. As for this latter point, this will become manifest in a notion of criticality that involves a forwards and backwards movement of questioning between one's own sets of beliefs and the alternative pieces of knowledge one is considering. This questioning would involve allowing that one argument, worldview, or beliefs system in general, dictate the questions which will be asked of its alternative, expressing its vocabulary, beliefs and concerns, and then allowing for the reverse process to take place. This defines what I shall call *external appropriation* and *self-reconstruction*—depending on the direction in which the analysis is done—and the basic purpose in this being a two way process is to allow for both possibilities to be taken mutually seriously, as well as to not let one's beliefs become the centre from which everything that is different is determined to bear the burden of proof and justification.

I will start in the first section of this paper with an examination of two dialectical views of critical thinking, namely Missimer's and Paul's, and of the way they define them in contrast to the more widely accepted view that promotes assessment of individual arguments. The idea is to clarify what is entailed by the distinction between them, so that my own argument may be appreciated as formulating the issue in a different way. The second section of the paper starts with an argument about the instrumentalist role that alternative knowledge plays in those approaches, for later presenting an analysis of the relation between knowledge and alternative knowledge in order to gain a better understanding of the acts of interpretation and assessment in terms of knowledge and alternatives. The third section of the paper carries forward this analysis to explain the role of the person, and the person's sets of beliefs, in interpreting and assessing a piece of knowledge. The emphasis is displaced from the piece of knowledge itself, to the act, by the person, of distinguishing it as a piece of knowledge. In this section I also discuss roles and limitations of theories of the critical as sources of questions which reveal alternatives and assumptions. In the final section I present some basic elements for a methodological proposal for a conversational form of criticality in the form of mutual questioning and redescription, and with that the notions mentioned above of external appropriation and self-reconstruction.

Dialectical and Isolationist Views of Critical Thinking

Connie Missimer has pointed out that the vast majority of the work on critical thinking presupposes that the assessment of arguments can and should occur taking account of only the argument itself, in isolation (1989). The set of beliefs under critical examination, in this picture, would be considered as it is on its own, only in its relation to whatever it sets out to describe. According to her, this implies that the assessment represents a somehow non-temporal and non-historical process, carried out according to non-temporal and non-historical criteria. The concern in this approach, which she calls the *individual view of critical thinking*, is "that each act of critical thinking be not only sound by logical principles but free of bias and prejudice, reflecting an impartial mind. The assumption is that if each act of critical thinking is as error-free as possible, knowledge ensues" (Missimer, 1989, page 119).

The workings of this approach can be illustrated with a look at one of the main tools used in it, which is a set of archetypal structures of bad forms of argumentation, normally known as the *fallacies*. Students are normally encouraged to identify in a text the basic elements that constitute an argument and then see whether some kind of fallacious argumentation has taken place. The suggested result might be that fallacies found in the argument conveyed by the text can be good enough reasons for rejecting it. Missimer describes this approach as an individual view of critical thinking because the argument in question is not contrasted with any alternative one; it is taken to be examined in isolation. Furthermore the assessment techniques used in the approach, one of them being the use of fallacies, can be applied by an individual person without the need to refer to anything else, and independently of who her/his peers are and of how that very assessment plays a social role in the community in which s/he lives.

An alternative for this isolationist view is presented by Missimer in what she calls the *social view of critical thinking* (1989), or the *Alternative Argument Theory* (AAT) (1995), which suggests that the consideration of alternatives available to whatever piece of knowledge is in question is necessary for critical thinking. The assessment, then, would be the comparison of the relative strength of the alternatives considered; the possible result, the determination that one theory or beliefs system is *better than the alternative ones considered*. As can be seen, this opposes her description of the individual view in which assessment and result refer to the [absolute] strength and good of a particular theory. An approach that is

similar to Missimer's social view in this respect is the one presented by Paul (1992 and 1994), namely what he calls *a dialectical mode of analysis*. Paul's approach also makes use of alternatives, but in this case an emphasis is put on worldviews. The differences between what can be considered a worldview and a theory are not so clear, given that no deep analysis has been presented in either case; apart, perhaps, from the idea that theories belong to the more formal world of scientific and academic endeavours—as in many of Missimer's examples— whereas the notion of *worldview* as used by Paul is perhaps to be applicable to the world of everyday life. According to Paul, the tools normally used in critical thinking—like identification of fallacies—are only moves in larger confrontations of worldviews. Given this, it would be these confrontations and the larger sets of beliefs which take part in them that have to be understood. It should also be said that even though the techniques used by more traditional approaches in critical thinking and those used by Missimer and Paul may be very different, similar criteria still applies in both cases, like coherency, consistency, breadth, etc.

Both Paul and Missimer have associated the idea of critical thinking as a dialectical and comparative form of assessment with the social and historical embeddedness of knowledge. That is, they both acknowledge that claims, arguments and theories are always formulated by persons who belong to a "socially wrought fabric":

> As humans we are—first, last, and always—engaged in interrelated life projects which, taken as a whole, define our personal "form of life" in relation to broader social forms. Because each of us is engaged in some projects rather than others, each organizes or conceptualizes the world and her place in it in somewhat different terms than others do. Each of us has somewhat different *interests*, different *stakes*, and somewhat different *perceptions* of the world. Each makes somewhat different assumptions and reasons somewhat differently from others. (Paul, 1994, page 187, italics in the original)

> The Social View is by definition a historical view (….) Finally, the Social View is an evolutionary view in which terms like good and bad, appropriate or reasonable, and critical thinking are meaningless without historical and social reference points. (Missimer, 1989, page 120)

It is also interesting that Missimer has called her approach the *social view of critical thinking*, but also the *alternative argument theory*, showing the strong connection between the idea of theories or arguments as belonging to a community, and the idea that assessment depends on alternatives—which also emerge within that community. As she has claimed, assessment is not an attempt to stand outside of the social and historical particularities of knowledge and knowers, but a way of being linked to one's community. Thus she argues that "one must have reasons for one's judgment, such reasons argued to be better than those in contrasting theories, but the onus of being right or correct does not fall on the individual. As history has shown, that is too large a burden" (ibidem, page 121). People participate in the conversations of a community of inquiry, and doing this implies to take into account those theories and pieces of knowledge which have been proposed as alternatives for particular problems. But showing that one theory is better than its alternatives at a given time is not enough for declaring it true in an absolute sense. I take it that this is what she means with her remarks about the historicity and temporality of notions like good, bad, appropriate, and reasonable.

I have not seen in Missimer's papers the practicalities of how assessment of the worth of a piece of knowledge is to be carried out in comparison with other alternatives to it. In Paul's case, one very interesting feature appears in the instructions he gives his students for the assignments and/or examinations (see the example in Paul, 1994). The whole assignment

is structured in such a way that the students have to analyse the different conclusions about a particular topic by people or groups with opposing views. He then tells them to imagine the questions that an intelligent person representing each position would formulate and ask a person holding the opposing view to respond. The students would thus have to examine the soundness of each argument as it performs under the questions asked from the opposing point of view. Effectively, they have to *make use of one worldview as a source of critical questioning for the examination of the opposing worldview, and vice versa*. The underlying idea that one could conclude from this is that without an alternative worldview, these questions would have been very difficult to formulate, if they had been possible at all. I will come back to this point, given that it has a central importance for my argument.

To end this section, let me point out that the analysis by both of these two authors about the distinction between their own approaches—dialectical mode of inquiry and AAT—and the individual or isolationist view of critical thinking seems to suggest that here there is a difference of category. That means that the two possibilities are of different kinds, and that this difference in kind is determined by the presence or absence of alternatives, and by the same token also of a comparative assessment. Whereas in one case one would look at the *argument* or what is said in itself, in the other one would put it in front of something else so that what one sees is reflections from the other thing. One could either analyse the inside of the argument, the argument as it is in itself; or analyse it from the outside as it looks when seen from, or compared with, alternative arguments. This is what basically would allow one to talk about the choice between the two categories of approaches as one between assessment of the argument on its own, or "as it is in itself", and comparative assessment in the light of alternatives.

I will try to show in the following sections of this paper that this distinction drawn in this way is problematic in that any belief or claim already entails at least a display of alternatives, among which one in particular—or a subset of them—is chosen. In this sense, any assessment of a beliefs system necessarily has to account for alternatives in a comparative way. The difference between the individual and the social views of critical thinking, to use Missimer's expressions, must lie somewhere else. My idea is not to criticise the distinction, as I think that it is an important one, but instead to redescribe it by criticising some perhaps more basic ideas about meaning and interpretation.

The analysis might start by asking about how claims or arguments are individuated so that they appear as individual things. An answer to this question becomes somehow risky because some of these issues do not appear so explicitly discussed in their texts. In one first sense, both their views may be compatible with the idea just expressed that a claim or belief is already a choice, if we take them as simply saying that some beliefs only seem to make sense or appear plausible if one examines them together with other beliefs with which they cohere, and that therefore assessment should take into account that larger set of beliefs. Sets like this might correspond to Missimer's theories and Paul's worldviews. The decision of whether to consider alternatives could not be taken, for it would be inevitable; however, there would be an authentic instrumental choice in terms of what alternatives are considered, their degree of coherence, and their *size*. This way, well developed opposing theories or intelligently held worldviews would be better as alternatives than individual claims examined *one by one*. It seems that this is something they may mean. Nevertheless, at the same time their explicit distinction between one approach that does not consider alternatives and another one that does, seems to also point in a different direction. In Missimer's case, for example, her espoused advocacy of Popperian notions of truth and inquiry may suggest that she takes claims or beliefs as standing in a certain relation of representation to the world, and in the ideal case of correspondence even if we can never know it (1989, page 125). If one is to follow seriously the implications of this view, then it may be that some kind of "thing in

itself" in relation to beliefs—perhaps a representation—can be found, so that a qualitative distinction between individual and comparative assessment can intelligibly be made.[2]

Assessment, Interpretation, and Alternative Knowledge

I now want to spell out the form of the role that I think alternative knowledge plays for critical thinking. Let me begin by simply pointing at a conclusion that has come down to us from the works of Sellars and Quine, as a particular consequence of holism; namely, that knowledge of any one thing implies knowledge of many other things (see Sellars' discussion of the Myth of the Given, 1956; also Quine, 1953 and 1960; for a general integrating account, see Rorty, 1979). The whole argument for holism, however, is a long one in the history of philosophy, and it is not within the scope of this paper to recreate it.

For my purposes here, I am especially interested in one kind of beliefs entailed by any other one: that which covers what is negated; that is, those beliefs in which possible alternatives are declared false. One special case is related to the identity of things; as Quine has said, "we cannot know what something is without knowing how it is marked off from other things" (1969, page 55). Extending this to the more general case, knowing what an assertive utterance means implies also knowledge of what is denied by it.

As Malpas has further claimed, there is a close relation between holism in the structure of beliefs and holism in interpretation. As he puts it, "the structure of the psychological [and of beliefs as part of it] is mirrored, not unexpectedly, by the structure of interpretation itself: interpretation is holistically structure" (Malpas, 1992, page 145). Given this, Quine's remark can also be extended to interpretation: one cannot know someone's belief about what something is, without knowing many things that person believes about what it is not.

Thus, interpretation already necessarily implies the recognition of alternatives. Whatever one calls the piece of knowledge in question—a claim, an argument, a theory—and whatever its complexity, the act of recognising it as knowledge already implies distinguishing a claim or set of claims from alternative claims or sets of claims. Taking the meaning of a sentence as the conditions under which it would be true (see for instance Davidson, 1986), this further suggests that the interpretation of a phrase implies in some way the possibility of knowing what it would be like if that phrase were false. The alternatives do not necessarily have to be finite or susceptible of being counted, though, and one does not have to imagine them all when one interprets the sentence. For instance, for most of us the sentence "that car is of a scarlet red colour" suggests the denial of alternatives like "it is dark red," "magenta", "indigo", yellow", etc.; but all these and the enormously large number of other possibilities do not have to come to one's mind. Knowing what it would be like for that sentence to be false is something that already comprises these alternatives. In the interpretation of the sentence one brings forward a range of possibilities of which one takes the sentence to represent a particular choice. A sentence can thus be taken as an answer to a question, and the question as asking one to choose from among a range or space of possibilities. Depending on whether it is a more open or closed question, the space of possibilities will be less or more clearly defined respectively; but it still nevertheless defines what is not a possible answer.

This idea represents a fundamental insight, as suggested by Gadamer: Any piece of knowledge is the answer to a question, and a question presupposes the existence of different possible answers. Because of this, "it is the essence of knowledge not only to judge something correctly but, at the same time and for the same reason, to exclude what is wrong. Deciding the question is the path to knowledge" (1986, page 364). Interpretation is therefore related to the recognition of the question and the alternative answers for it:

> Interpretation always involves a relation to the question that is asked of the interpreter. To understand a text means to understand this question (….) We understand the sense of a text only by acquiring the horizon of the question—a horizon that, as such, necessarily includes other possible answers. (page 370)

In this way, a question opens up a space of possibilities, and by making a claim one or some of these possibilities are selected.

But the trivial example of alternative knowledge given above is not, of course, what Missimer and Paul have in mind when they propose their models for critical thinking. What they want to have compared is full alternative theories, or arguments, from different worldviews, and not simply alternative single claims. In the example of the colours given above, only in rare cases a dispute over the validity of that claim will involve any consideration or questioning of any more possibilities than the ones suggested by the different colours. However, if in the process of interpretation of a piece of knowledge new theories or worldviews are brought forth as alternatives for it, the space of possibilities within which it is seen as a choice will effectively have been increased.

It is possible to see this if one considers that declaring a claim true or false implies to have already accepted as valid the question for which it is an answer; that is, to have accepted the range of possibilities that it provides. No additional variables or dimensions would have been added to the ones that one had already recognised as being explicit in the claim or set of claims, which could modify the range of possibilities under consideration. But it may be that one does not accept that very space of possibilities presupposed by the question, in which case one will declare the claim neither true nor false, but simply irrelevant or perhaps even meaningless . This can be seen from the following example: let us suppose that a student has committed plagiarism in one of her/his assignments, and that a sentence like "the punishment this student deserves is X" is uttered by someone. At a first look, the question associated with this sentence and for which it seems to be an answer may be "what punishment does this student deserve?" But one may well have reasons to think that punishment should not be applied at all here; perhaps simply because of the nature of that particular situation, or perhaps as a general policy. Or moreover the very notion of *punishment* may be one that makes no sense in one's language; it may be a notion for which we have no use. In this latter case, in the attempt to make sense of the sentence one will see it, as well as the beliefs system it interpretation of that piece of knowledge recognises the existence of an issue involving possibilities that may go well beyond the limits imposed in an explicit way by the original sentence. As I will explain later, those limits can only be seen as limits if one at the same time can imagine possibilities outside of them, which in this case have been provided in one's act of interpretation. This can perhaps be seen as if one had introduced another question that modified the range of possibilities already present in the intention of the original question; but sometimes it is not so easy to decide what is actually included in it and what not. Some possibilities will certainly look as if they were already implicit there, but some others will be in a greyer area. Consider the previous example about punishing the student; would one say that the alternative that the student be not punished is implicit in the space of possibilities from which the choice was made? There is no easy answer, and perhaps not a determinate one for this. Other considerations that I have not taken into account here, mainly related to context, will further make that distinction between what is included and what is not even more difficult.

One first conclusion to be derived from this refers to the mistake, present in many pedagogical proposals, to think that knowledge imposition in its multiple forms can be avoided by adopting a pedagogy of questions instead of one of assertions.[3] Clearly an assertion is much more restrictive than its corresponding question in that, *ceteris paribus*, a

particular possibility has been chosen already, whereas a question still allows for different answers. But the question also imposes a space of possibilities and as such requires its acceptance in the first place. A question, then, neglects or fails to consider those alternatives that go beyond the limits of its space of possibilities; but those limits of that space of possibilities can only be determined in a concrete and intelligible way if one can already envisage such other alternatives beyond those limits. This is nothing other than thinking of a new question, one which provides that new space of possibilities. But this also implies that the limits only exist in the envisaged possibility of going beyond them; that is, in the new question as it stands in contrast with the former question. In this way it can be said that language creates as well as restricts.[4]

But when the differences in the spaces of possibilities are large between those more directly entailed by the other person's claims and one's own imagined ones, it is likely that only by looking at other related sentences held true by him/her one will be able to fully interpret the original ones. If I am to use Paul's terminology (1992), one would have to examine perspectives, points of view, or worldviews. It will only be within that larger and more or less coherent set of sentences or beliefs that the one in dispute might be seen as potentially meaningful and/or true. In general, the more radically different one's imagined alternatives are from the ones in question, the larger the set of sentences that one has to consider in the process of interpretation. In such cases, one's interpretation of that set of sentences *as a whole* will have occurred in opposition to a similarly large set provided by oneself. These two constitute alternatives to each other, of the kind that perhaps Missimer and Paul want.

For instance, one's understanding of a statement like "truth is correspondence to reality" will be weak unless at the same time one recognises the existence of alternatives to that claim like, say, "truth is the total coherence of one's set of beliefs." If one is not acquainted with the discussions in philosophy which give rise to these two alternative formulations as solutions to a set of problems, and if when presented with these two options one discovers that one believes that truth is correspondence to reality—just like Molière's character learned that all his life he had been talking in prose—then the other alternative will look in one's eyes like being on the edge of senselessness. For one does not know yet of any set of beliefs supporting each other which also support the possibility that truth is not correspondence to reality but, say, coherence. A similar case can be found when one feels the need for a new vocabulary, but it still only exists as an intuition, as something not yet formulated and much less fully developed. It is also in these terms that it is possible to understand Frye's description of her own feminist work on the creation of a new language which rejects the picture of women as portrayed by men, as "a sort of flirtation with meaninglessness—dancing about a region of cognitive gaps and semantic spaces" (Frye, 1983, page, 154; quoted in Rorty, 1991, page 217). I take it that this is a consequence of the holism of meaning and justification, in that a sentence cannot be justified in isolation from a lot of other sentences which lie on the same web of beliefs.[5]

In this argument there may appear at least two kinds of temptations. The first one of them is to objectify or materialise in some way a distinction between individual statements and worldviews. The second is to conclude that in this process of interpretation through the provision of radically different alternatives one can get to finally unearth or discover the assumptions implicit in the piece of knowledge in question. I will address this second issue in the next section. About the first one, this materialisation of worldviews might occur, for example, in the form of the postulate that worldviews are frames of reference on which the truth of a statement depends, effectively introducing an intermediate element between a sentence and the world. If that were the case, knowledge of the worldview, frame of reference, conceptual scheme, or whatever one calls them, would be necessary for any

assessment given that the validity of any sentence would be relative to a worldview. For instance, this is what Siegel (1988) seems to impute to Paul and his treatment of worldviews.[6] Let me emphasise that this is not the line I am taking here, for I have simply used these terms as shortcuts for more or less coherent sets of beliefs, without any implication that suggests that their individual or collective truth-values are relative to something else. In this respect I adhere to Davidson's arguments against the idea of a conceptual scheme, which he has rejected on grounds of unintelligibility when examined closely (1974). With the rejection of the idea of scheme, he drops the distinction between scheme and content, which he calls the third dogma of empiricism.[7] It is not within the scope of this paper to recreate his argument, which is based on a discussion of the functions traditionally attributed to schemes or worldviews—like fitting or organising experience—and of the relation between truth and translation. However, two basic ideas in his argument are worth mentioning. One of them is that organisation of experience can only occur if there are elements in it to be organised, which would only take us back to the question of how those elements of experience—like events or objects *that one can describe*—are individuated. Davidson's point is that a language that individuates and organises *such* entities "must be a language very like our own" (ibidem, page 192). A second idea refers to untranslatability as sign of difference in conceptual schemes. The problem, he points out, is that we do not understand "untranslatable, but true". If one observes some verbal behaviour coordinated with non-verbal behaviour as intelligible enough for calling it language, then there is already a great deal of agreement and translation has already taken place; for one has determined intelligibility based on one's own language and beliefs. Accepting this, one should not allow oneself to talk about these larger pieces of knowledge as something other than simply a set of beliefs held true by someone (see also Rorty, 1986 and 1988). That is, notions like worldview and conceptual system can be taken as "arbitrary divisions of a seamless and endless process of reweaving webs of belief" (1988, page 153). Let us notice that nothing in the argument so far has suggested the need to make use of such entities mediating the relation between sentences and the world, entities that may relativise the truth of a statement. What seems to be beneficial about talk of worldviews, the point can be taken, is that this recognises that for someone there may well be good reasons to think that the space of alternative possibilities provided by someone else's claims may not always be meaningful or enough, or that the differences between them are not only of different answers to the same questions but also of different questions asked. In such cases one might be inclined to talk about differences in worldviews. Still, as Davidson has also pointed out (1973), these differences that one recognises between worldviews cannot be so radical that understanding is not possible, for it does not make much sense to say that something is a language and that it is totally untranslatable. That is, the signs out of which one recognises that some people speak *a language* are forms of relating to the world and to others that follow the same or similar patterns to those with which one characterises one's own language. In a similar way, by recognising something as a piece of knowledge one is already granting that similarity, an assumption which necessarily plays a role in interpreting it. No wonder misunderstandings occur, and sometimes too frequently, but the very fact that someone is able to recognise the existence of a misunderstanding implies that understanding is possible.

To end this section let me now summarise the conclusion. According to the discussion in the previous paragraphs, interpretation always already implies a contrast with some alternatives, or the recognition of spaces of possibilities among which one [or some] has been chosen. This is simply another way of phrasing my previous statement that "alternatives are always already implicit in anything which we distinguish or recognise as a piece of knowledge." One's act of interpreting it will be an act of recognising these alternatives, of which some will be easier to see as having been implicit in the piece of knowledge in question

and others as being added by the interpreter in the act of interpretation. In the latter case, the effect might be that one adds to the space of possibilities by showing that there are other alternatives which lie off its limits, and perhaps also that one redescribes or dissolves the original description of that space.

From here, then, I conclude that whenever assessment of a piece of knowledge involves its interpretation, it implies the comparison between alternatives. Because of this, instead of suggesting that we should contrast alternatives because that makes our assessment better, as seem to be Paul's and Missimer's claims, I am saying that if we accept that assessment involves understanding,[8] then we shall also take it that any assessment, by its very nature, involves the play-off of alternatives.

Assumptions and Interpretation

In the previous section I described the relation between interpretation and the recognition of something as knowledge, and the recognition of alternatives. As the choice of terms suggests, the emphasis is not on the piece of knowledge in question itself, but rather on the act of recognising or distinguishing it as knowledge. And this in turn means that it is in the recognition of something as knowledge and of interpreting it, where the pieces of knowledge which constitute alternatives for it are to be found.

This is not the same as adopting a relativistic position concerning interpretation and understanding, or as saying that any interpretation is possible, or acceptable. But the alternatives recognised can be different in different acts of interpretation, in different contexts, by different people. Similarly to the example of punishment for a student who has committed plagiarism, the alternative knowledge for something like "Ana is guilty" may comprise not only the obvious one in societies like ours: "Ana is innocent". If *guilt* is not part of one's vocabulary, for instance because of different beliefs about human agency, then the generation of an alternative might also require from one to take the larger piece of knowledge in which the term *guilt* is meaningful and which allows for the very formulation of the sentence "Ana is guilty." One's attempt to interpret the sentence will make one look at other beliefs held by the person who is postulating Ana's guilt, *even if those sentences have never been made explicit by or occurred to that person*. And one's own vocabulary may make this very notion meaningless, or senseless. What we would be inclined to look for here, then, is other of her/his and one's beliefs, which can help account for this difference in attributing sense to something like *guilt*.[9]

Indeed, it may happen that the other person had never considered the possibility of *guilt* not being meaningful. What is important is that s/he will only understand any question or claim about the meaningfulness of the notion of guilt if s/he comes to understand an alternative—for instance, one's alternative. It is when something like that happens, that one is inclined to say that a *hidden assumption* has been found. The reason why it would be an assumption, is related to the fact that there had not been any reflection on that question before, and therefore no justification had been provided for its answer, even though an answer could be inferred from the position held. This is basically the idea of assumption as can be found in a dictionary. It was hidden because it was never explicit that an answer had been chosen, so to speak, and even for the person her/himself the question had never appeared at all. The disclosure of a hidden assumption is, effectively, the addition of a new dimension to one's set of beliefs, and the recognition of other spaces of possibility one had not considered before. As in the example above, it is not simply that one takes the message at face value and decides whether it is true or not, but one broadens the scope of one's web of beliefs by expanding the range of issues which are dealt with. This means that the spaces of possibilities within which one can see one's beliefs as a choice has expanded. And of course, once the

assumption has been disclosed, it is no longer hidden. And I take it that in critical thinking the idea is to try to make it *cease to be an assumption*, if possible, so that it either becomes a supported belief or is rejected and a new belief takes its place. A total acceptance and a total rejection of the belief are not the only possible results of this process, for its resolution might be decided to be put off, or alternatively the validity of the belief and its recognised alternatives may be limited to particular contexts or domains.[10]

By relating assumptions to spaces of possibilities in this way, this analysis is compatible with the one provided by Delin et al. (1994). They have formulated the notion of *assumption* as a boundary or a limit; as "some sort of limitation or circumscription of the thinking process, or the field that the thinking process concerns itself with" (page 117). In the terminology I am using, these boundaries surround the spaces of possibilities directly recognised in one's claims. My further claim, however, consists in that these limits can only be seen as such if one can imagine possibilities beyond them, and that the shape of those limits as we recognise them depends on the alternatives one provides. If there is no limit to the alternatives one might imagine, then it makes no sense to think of these boundaries as existing in the claims themselves.

This last point refers to how assumptions should be understood. One might ask whether it is useful at all to say that it had been there all along, perhaps somewhere in the holder's unconscious, or in the logic of the argument (see Plumer, 1999). A view which holds that it was there all along, and that one eventually discovers it by means of critical inquiry, could provide, or at least postulate, some kind of theory of the critical, and perhaps a method for revealing these assumptions. This position seems to be more the rule than the exception: For instance, it is clearly reflected in some categorisations of paradigms based on epistemological and ontological assumptions (see for instance Burrell and Morgan, 1979). More interestingly, it is also present in the idea of critique as *unmasking*, which has been so central for much work in the movement known as critical pedagogy, specially in its early stages, but also in some feminist authors. It is taken as a process of finding some assumptions which are there to be discovered (see for instance Freire, 1970; and Giroux, 1981 and 1983; and hooks, 1989). What one is to become aware of if one is to acquire a critical consciousness, is somehow already limited by some relatively predefined questions taken from a theory—which in this case might correspond to a [Neo-]Marxist analysis of the socio-economic, or a feminist view of the social. The source of the questions asked in critical analysis would then be this background theory, but hence also its limit. The way in which these limits are set might perhaps account for Young's complaints about the way in which Neo-Marxism has hijacked the term *critical*, attaching to it very specific connotations related to class and power (see Young, 1992). Likewise, in the movement known as critical systems thinking, in early versions, a meta-theory based on Habermas' knowledge constitutive interests was used as the source of the questions which constituted the critical inquiry into systems paradigms (see Jackson, 1991; and Flood and Jackson, 1991). Again, the limits of this theory adopted as the source of critique will be the limits of critique. A case which is different to a certain extent is Fuenmayor's Interpretive Systemology. Whereas in early critical pedagogy and early critical systems thinking the background theory used as the source for critical questions serves to step out of the particularities of the pieces of knowledge, in Fuenmayor's version even the critique of some knowledge will later be critiqued, and so this is a never-ending process. For him the act of critical inquiry is the disclosure of the context of meaning which enables the formulation of any knowledge—even critical knowledge—but this disclosure itself occurs in a context of meaning and hence is unavoidably vulnerable to critique (see Fuenmayor, 1990). In any case, he postulates the existence of something called *context of meaning*, which is a variation of the idea of *assumptions*, and which is to be discovered by means of critique.

Let us also notice that all these approaches imply that critique of a particular piece of knowledge can properly be done once and for all—in most cases in virtue of the use of one theory of the critical which they take to exhaust the possibilities. Because of that, the result of critique would be said to be somehow contained within the piece of knowledge in question itself; that is, it would be a *property* of the object of critical inquiry. But let us notice that to take it like that would be to freeze the possibilities of critique to the scope already provided by the theory of the critical which is used, not allowing for the possibility that more imaginative people with different backgrounds, or from somewhere else inside or outside of one's community, or in the past or future, can add to it at this level of fundamental premises. This, in itself, might be problematic, for it would be limiting us to ask only certain questions when engaged in critical inquiry. This general idea of criticality based on a theory of the critical suggests that these questions can be and have been specified by someone who somehow can provide a guarantee for their standing outside of time and history. This, in turn, corresponds to a belief about human inquiry as always being about the same questions, striving to provide ever more accurate or better answers to them, or about the possibilities of human inquiry as always being defined by the answer to a finite set of questions for which the possible answers are already there—and one simply chooses from them. This guarantee could take place if, for example, they corresponded to categories proper to the transcendental nature of the knowing subject, or to epistemologically fundamental categories. But this does not seem to be a promissory line of thinking (see Rorty, 1979, and 1989), apart from the problem of imposing unnecessary limits on criticality. In this sense, we might be better off if we take from them what they enable us to do, and leave them aside just at the point where they claim to exhaust criticality, or to correspond to how things are in reality.

It is interesting to see that these theories of the critical seem to stand on a meta-level with respect to the *first-order* pieces of knowledge they address, and because of this they look like having acquired a universal status. But the questions asked from these theories of the critical only make sense if one already knows that there are at least two alternative answers for them, just like the postulation of a variable only makes sense if one already knows that there is more than one value that it can or could take. In this sense, it may be as valid to say that the answers are constituted by or came to be because of the question, as to say the opposite: that the question was constituted by the play-off of different answers which made the question come to be. If one first talks about the questions and then derives the possible answers for them, as if giving ontological priority to the questions, then it will look like there are two different levels. Theories of the critical seem to be like this: It is because they start with the questions with which one is to critically analyse pieces of knowledge that they seem to stand at a meta-level in relation to them. But one could also have chosen to put the emphasis on the different pieces of knowledge which, *when contrasted with each other*, appear as giving different answers to a same question or set of questions. In this case one would choose to talk only of pieces of knowledge or beliefs systems with their more explicitly recognised spaces of possibilities, and encounters between them; rather than creating a structure of levels with first-order and second-order knowledge—in which the meta-level is occupied by theories of the critical. But the choice has some other implications. The *levels picture* does not make explicit the conditions of validity and/or meaningfulness for the questions which are asked; that is, the beliefs out of which critical questions are asked could be themselves false or meaningless. Because of this, the levels picture may be misleading. Instead, focusing only on the pieces of knowledge and the encounters between them explicitly shows that these questions may not be generalisable to other encounters. Furthermore, instead of being divided in levels—perhaps in an arbitrary way—the critical questions which are asked should be incorporated into the beliefs systems, enlarging their scope.

From the ideas and examples discussed above, we can try to reconstruct the notion of *assumption*, and with it part of what it is to perform a *critical analysis*, in such a way that we do not need a theory of the critical which functions as the source of questions for discovering them, and which also unnecessarily limits their scope. A first relevant element for that reconstruction is the idea that, as stated before, a hidden assumption and the question for which that assumption is an answer only come to be an assumption and a question *as such*, acquire a meaning and can be understood, when one is able to contrast the belief expressed in the assumption with some alternative/s. But that alternative piece of knowledge is not fixed, does not have to come from an atemporal and ahistorical source theory—of meaning, or of knowledge constitutive interests, or of the transcendental nature of the human subject, etc.— but from any alternative vocabulary or set of beliefs.

It is interesting to see that this is what happens when one attempts to do what Rorty calls a *rational reconstruction* of the work of those philosophers, scientists, or whoever from the past. In a rational reconstruction, we "imagine conversations between ourselves (…) and the mighty dead" (Rorty, 1984, page 249). By doing this, one lets one's own present vocabularies dictate the course of the conversation by making "the mighty dead" answer one's questions. So, for instance, "in an imagined argument with present-day philosophers about whether [Plato] should have held certain other views, he would have been driven back on a premise he never formulated, dealing with a topic he never considered—a premise that may have to be suggested to him by a friendly rational reconstructor" (ibidem, page 252). This premise that Plato himself never formulated would constitute, effectively, a hidden assumption; but it would have appeared only in the encounter between Plato's and the present-day philosopher's ideas, instead of being ever present or totally self-contained. And this is so, because "rational reconstructions (…) are not likely to converge, and there is no reason why they should" (ibidem); that is, they also depend on the vocabulary and web of sentences held true by the reconstructor. It is him/her who imposes the issues for conversation, and the terms in which it is to be carried out. To fix the rational reconstructions from where new questions can be asked is simply to get tired, or unimaginative, and not necessarily to stick to [a metalinguistic] reality. But this is precisely what happens when we fix criticality to a particular theory of the critical.

A second element to be added refers to the idea that, even when formulated, an assumption only becomes meaningful if a full coherent alternative is available; that is, one which does not appear to be senseless—even if we decide not to keep it. Putnam's analysis of Euclidean geometry provides a very nice example of this point. It is acknowledged nowadays that Euclidean geometry is only valid as an approximation where space is almost not curved; in other words, Euclidean geometry assumes that space is not curved. But this premise was never formulated by Euclid, and here we find the first element of this reconstruction. Instead, he proposed some axioms as laws which look to most of us to be perfectly correct. But it was only with the advent of the work by Riemann and Lobachevski that the aforementioned premise could be formulated, and that the laws became visible as assumptions. So Putnam writes that

> it is inconceivable that a scientist living in the time of Hume might have come to the conclusion that the laws of Euclidean geometry are false: "I do not know what geometrical laws are true, but I know the laws of Euclidean geometry are false."[11] (1962, page 372)

A very similar idea is presented in Rorty's discussion about the attempt by some feminists to create a language in which we hear "what women as women have to say"[12] (Rorty, 1991):

Assumptions become visible as assumptions only if we can make the contradictories of those assumptions sound plausible. So injustices may not be perceived as injustices, even by those who suffer them, until somebody invents a previously unplayed role. Only if somebody has a dream, and a voice to describe that dream, does what looked like nature begin to look like culture, what looked like fate begin to look like a moral abomination. For until then only the language of the oppressor is available, and most oppressors have had the wit to teach the oppressed a language in which the oppressed will sound crazy—even to themselves—if they describe themselves as oppressed. (page 203)

In this same way, the egocentric and sociocentric attitudes that Paul attributes to most of the students (1994; see also Paul and Adamson, 1993), and for which critical thinking should be an antidote, can only be seen as such in terms of the possible alternatives that one can imagine, perhaps because one has learned them from other persons, other social groups, and other societies.

A third element is the displacement of the result of a critical inquiry that reveals assumptions of a piece of knowledge, from being a property of the piece of knowledge itself to being located in the encounter between beliefs systems. This is also to say that masks, as in the idea of critique as unmasking, are properties of encounters—conversational encounters—rather than messages.

It is now possible to partially accept and hint at an answer to one of Duhan Kaplan's criticisms of the critical thinking movement about it taking for granted that "the reader's only task is to reject or accept the message" (1991, page 216). Duhan Kaplan's attribution of this problem to the critical thinking movement seems to be only partially true given that a similar issue has been raised and addressed by Paul, particularly with his description of *intra-system thinking* and his analysis of its limitations (Paul, 1993). A form of critical thinking like the one I am willing to reconstruct is not only about whether to reject or accept the message, but also about how the message itself makes sense in a context of meaning—constituted by a net of beliefs, some of which may function as hidden assumptions—which only comes to be in the act of critical analysis in the encounter between the systems of beliefs of the subject who carries it out, and the piece of knowledge in question. It is in this sense also about relevance and meaningfulness.

Having said all that, I can now in the last section of this paper present some aspects about how some rather formal aspects of a critical analysis can take place. This will be, however, a general overview rather than a very detailed elaboration.

External Appropriation and Self-Reconstruction in Critical Thinking

The discussion above points in the direction of an approach to criticality and to the act of critical analysis which is strongly based on interpretation. But interpretation is not taken here as separate from assessment or critical analysis, but as an essential part of it. In this sense it is different from other proposals based on a kind of interpretivism. For instance, Langsdorf has presented a method as a proposal for critical thinking, which she describes as strongly based on hermeneutics and phenomenology (see Langsdorf, 1994). This is an approach which "places far more emphasis on understanding claims (…) than on assessing the strength or validity of arguments that may be formed from those claims" (1994, pages 162-163). Furthermore, according to her argument, interpretation has to be done "before even thinking of evaluating the claims that can be located within the text" (page 180). In a certain sense, when understanding of some claims or theories has already been secured, it is possible

to formulate other things that one should consider in order to become more certain about whether to hold them true or false. But this implies that much agreement has already been established, and that the questions for which the claims are answers have already been declared meaningful and relevant.

This distinction between understanding and assessing as two actions of which the former can happen independently of the latter but is required before the latter can take place has also appeared in a different guise in Ayer's claim that a description of someone's ideas in that person's terminology is necessarily prior to that description in our terminology. It has also appeared in Hirsch's claim that discovery of *meaning*—the author's intentions around the time of writing—naturally precedes discovery of *significance*—the place of the text in some other context (see Rorty, 1984).

In the present analysis I shall adhere to a Davidsonian theorisation of the relationship between meaning, belief, and truth. According to him, it is not possible to intelligibly understand translation or interpretation separately from truth—and therefore assessment—and from the "charitable assumption that most of [the other person's beliefs] are true" (Rorty's remark, 1984, page 254; see also Davidson, 1973, 1986, and 1999; Rorty, 1995b; and Malpas, 1992). In his discussion *of radical interpretation*,[13] he has shown that in interpreting someone else's utterances one has to attribute to him/her both beliefs and meanings at the same time, taking neither of them for granted. The way to do this is by applying the charity principle; that is, to attribute the other person true beliefs *as far as it is possible*, letting meanings be then assigned as they may. But of course, the only possibility for deciding which beliefs are true is by recourse to one's own beliefs, and especially those one is most certain about (Davidson, 1973, 1974, and 1999). In interpretation in a known language, previous acquaintance with the use of words and sentences in a language (meanings) is sure to play a more important role, but it cannot still be taken for granted. This is what allows, for instance, for the possibility of identifying that someone's usage of certain expressions is different from one's.

It is interesting to note that a similar version of the idea that understanding and assessment do not occur independently has been formulated by authors in the hermeneutic tradition for some time now, as can be evidenced by Gadamer's discussion of application and reading, and in particular his claims that "all reading involves application, so that a person reading a text is himself part of the meaning he apprehends" (1986, page 340), and that "application does not mean first understanding a given universal in itself and then afterward applying it to a concrete case. It is the very understanding of the universal—the text—itself" (page 341).

However, there is a distinction that has been made by Rorty between *historical reconstruction* and *rational reconstruction* of old texts (1984). His distinction was made in the context of the understanding of authors from the past in his discussion of historiography. The historical reconstruction of an old text would try to understand it in relation to the ideas and discussions at the time when it was written, in terms, for example, of the real and imagined conversations between its author and her/his contemporaries "or, more precisely, by that selection of their contemporaries or near contemporaries whose criticisms and questions they could have understood right off the bat—all the people who, roughly speaking, 'spoke the same language'" (page 249). In a rational reconstruction one places the text in one's own context and forces its author to have imagined conversations with one about issues that perhaps s/he never formulated. Its attitude, therefore, is more of assessment. Rorty has clarified, in agreement with the argument in the paragraph immediately above, that understanding and assessment are not independent actions

because you will not know much about what the dead meant before figuring out how much truth they knew. These two topics should be seen as moments in a continuing movement around the hermeneutic circle, a circle one has to have gone round a good many times before one can begin to do *either* sort of reconstruction (page 251).

One important difference is that a historical reconstruction does not have as a goal the production of an assessment of the ideas by an author—although as already said some assessment inevitably has to have been made in the process of interpretation—except for the weighing of his/her arguments in comparison with her/his contemporaries. In a rational reconstruction this is much more explicit, for in it there is an explicit contrast of the beliefs held by the author in question with one's own beliefs; that is, those sentences one thinks are true.

Rational and historical reconstructions do not necessarily have to be done on texts and ideas by authors in the historical past—the mighty dead—though. However, if the texts one examines are too close to one's cultural and intellectual communities and time then possibly not many significant differences between the two kinds of reconstruction will be found, because one will already be part of those contemporaries with whom the author is engaging or has engaged in conversation. Nevertheless, as long as there are disagreements and new issues that can be discussed a reconstruction is possible. I shall make a distinction between two forms of reconstruction, which I will call *external appropriation* and *self-reconstruction*. Both of them can be seen as being rational reconstructions, in that assessment is strongly emphasised; but as just mentioned, in cases of close proximity the distinction between rational and historical reconstructions is blurred. The distinction between external appropriation and self-reconstruction is one which points at the direction in which the reconstruction—and with it a terminology and a set of beliefs—is imposed between two pieces of knowledge which can be considered as alternative options for a particular domain. In this case I am not necessarily talking about imagined conversations with the mighty dead, authors of old texts who are not present anymore and of whom we say that did not know as much as we do now. Their application is something to happen in real conversations between persons engaged in some form of dialogue. [14]

External appropriation refers to the reconstruction of someone else's statements in our own vocabulary, according to our own sets of beliefs. It is an external appropriation because we *imperialistically* [15] take the other person's statements as expressed by ourselves, without any intention to "see through the other person's eyes". In it, one is inclined to use expressions like "what s/he is *really talking about* when s/he says that X is …," and "s/he *wrongly* believes that X *because* …." The first of these sentences places the other person's statements in relation to one's own as different descriptions—the other person's and one's own—in a same domain. But here the only clue for saying that the domain is the same is precisely the expression "what s/he is really talking about" and not anything external, given that the question "different beliefs about the same thing, or beliefs about different things?" has no definite answer (see for instance Rorty, 1979). With this last clarification I want to take distance from the presently widely accepted view of *perspectives* as different lenses with which something can be seen or perceived (see for instance Morgan, 1986). For in those views the question "but what is really that which you describe/perceive as X and I describe/perceive as Y?" has as an answer that *something*; which would simply take us back to the distinction scheme-content that Davidson has dissolved. The second expression that I said above that one tends to use in an external appropriation refers to the *sources of deception* that one sees as having misled the other into believing what s/he believes, in making the descriptions s/he makes. In this sense it is basically explanatory of the disagreements, but of course in one's own terms. The disclosure of sources of deception has traditionally been one

the main tasks self-attributed by people who engage in critical inquiry, and an aim for which theories of the critical have been constructed. However, I am locating the disclosure of sources of deception as being dependent on beliefs systems, and not as a neutral external operation exercised from above the pieces of knowledge under examination. The basic reasons for this have already been given in previous sections in this paper.

Self-reconstruction is the opposite movement, in which we try to reconstruct our claims in the other person's vocabulary, according to her/his beliefs or conceptual scheme, as if saying "s/he would say that what I am *really talking about* is…," and "s/he would say that I believe so because…." This form of reconstruction is more difficult, for it requires a lot of familiarity with the other person's beliefs; but it can be done, and particularly more easily if one can count with the other person's help. To some extent these two forms of reconstruction might yield similar results, in that both represent contrasting operations between both sets of beliefs; however, if not theoretically, at least methodologically a self-reconstruction will much more easily reflect the other person's concerns than what can be grasped in an external reconstruction—and vice versa. This is so because specifically engaging in that effort implies an attempt to take those concerns seriously by addressing them and giving an answer to them.

Of course the production of these two forms of reconstruction, external appropriation and self-reconstruction, are not to be thought of as the end result of a critical analysis. The idea is to use them to formulate the issues that may need further elaboration and that had not been addressed so far; for instance hidden assumptions. At that point a great deal of assessment has been carried out already, though. But it is not simply understanding what is being sought, as what is traditionally attributed to interpretive approaches, for in these reconstructions the sources of deception should be made explicit for both systems of beliefs in the conversational encounter, not as neutral characterisations given by a theory of the critical, but as part of the very reconstruction of one system in the terminology of the other. This takes account of the fact that the recognition of sources of deception and their manifestation in the form of knowledge distortion requires the formulation of alternatives and therefore remains tied to the act of interpretation, as I formulated it before. Or, as Rorty puts it, "'ideological frozen relations of dependence' [that distort communication] become detectable only when somebody suggests concrete alternatives to them" (1995a, pages 319-320).

In particular, the distinction between external appropriation and self-reconstruction will be useful to formulate a way in which critical analysis can happen in a conversational way, and in which the play-off of alternative pieces of knowledge is something that is effected *between* them rather than *upon* them from some outside atemporal and ahistorical source theory.[16] This takes account of the idea that there we co not know any *language of reality* different from the language we use and know.

An external appropriation of someone's ideas, or of a piece of knowledge which is alternative to ours, would be, as I have already said, a description of those ideas in one's terminology. By doing that, one is automatically asking questions expressed in one's own vocabulary to the person whose ideas one is considering, and asking her/him to accept the topics and issues as initially potentially valid and relevant. One's concerns are expressed in those terms and questions, which also convey implicitly or explicitly one's beliefs. In this process, the questions themselves may appear to be senseless, they may not be acceptable for the other person; and in this case it would be necessary to dig deeper to find the beliefs which can account for this refusal to take them seriously. That is, the meaningfulness and relevance of the questions is in doubt. This would take us one step back to start again. The questions might be or become acceptable, however, and in the process one may also force the other person into explicitly formulating some beliefs—perhaps in the form of assumptions—that in one sense one could say that s/he had, but that had never been expressed until this conversation came about. We shall not say that those are *the* assumptions made in that piece

of knowledge, as if they were fixed and totally contained in it, waiting to be discovered. That is, we should not think that we have reached the essence of the piece of knowledge in question, from where everything else in it can be explained.

What is important is what happens when we reveal these hidden assumptions. The results are a choice by the person who had made these assumptions, based on other beliefs and reports of concrete cases by her/him and others, in terms of justification. This choice is one about how one decides to balance the tensions in one's web of beliefs, which is always affected by one's own and others' reports. But it is this person who becomes responsible for the choice made, in the light of other possibilities which become available at that time. The choice may as well be one of postponing it until some other reports by oneself or others are made, in a few simpler cases, or perhaps one of relativising the choice to yet another variable, or dimension, which qualifies different contexts in which different options may be more applicable or valid.

Self-reconstruction is the opposite movement, in which one lets the other person's terminology, conceptual scheme, language, worldview, or whatever is the case, redescribe or reconstruct one's beliefs about a concrete or general situation. By doing this, we also allow him/her to dictate the questions, based on his/her concerns and beliefs, which will be asked of one's proposed pieces of knowledge. The process is similar to that of external appropriation, but this time the other's set of beliefs is what functions as the source of questioning. The main difference is that one has to abstain from falling back into using one's own terms again, terms in which some of the questions that the other can and will ask about one's proposed pieces of knowledge, might never have appeared. But again, in the same way as before, the meaningfulness or relevance of those questions remains as a question.

The process of critical analysis that is engendered in this way should establish a communication in which concerns are more genuinely shared. Through the external appropriation of the other's set of beliefs, one is trying to figure out whether her/his ideas will be useful for addressing one's concerns, in such a way that one could gain from her/him some deeper understanding for coping with them in a better way: more efficiently, more efficaciously, more effectively, more elegantly, etc. Through the self-reconstruction of one's own beliefs and concerns from the other person's vocabulary, one is trying to figure out whether s/he has some important and valid concerns which might have been lacking in one's vocabulary without one knowing it. One may as well find out that one's deepest concerns might be dissolved, rather than solved, by the adoption of [parts of] the other's vocabulary, and/or by questioning some hidden assumptions which lay behind one's known-to-oneself set of beliefs. In the conversation with the other, one's external appropriation of her/his beliefs is taken by her/him as the source for her/his self-reconstruction, and vice versa. In this process each person makes use of the other's beliefs as sources for questioning his/her own beliefs, both in terms of how they can address his/her concerns, and of whether these concerns are valid or are taking account of everything that should be taken account of.

A critical conversation in the proposed sense would have a number of characteristics, of which the following four seem to be particularly important:

Firstly, its aim is not defined as the creation of knowledge which better corresponds to reality, whatever this means, but as the improvement of one's set of beliefs, by taking alternative pieces of knowledge as sources for critical questioning of one's own original beliefs. In the latter point, it is similar to Paul's dialectical mode of analysis (1994), which is evidenced in his example of an assignment for his course in which students are asked to ask questions which intelligent persons holding alternative conflicting worldviews would make to their opponents in an imagined discussion between them. In this conversational form of criticality proposed here, improvement is suggested to happen in two different ways: by enhancing one's capacities to deal with one's declared concerns—as what is encouraged with

external appropriation—and by enhancing one's scope by acknowledging the other's concerns and by becoming aware of and/or perhaps modifying one's hidden assumptions *in such a way that they cease to be assumptions* and become part of the consciously justified set of beliefs—as what is encouraged with self-reconstruction.

Secondly, it is not necessarily adversarial; that is, it is not based on an idea of confrontation between alternative claims, pieces of knowledge, worldviews, or whatever is the case, but rather on a contrast between them. Confrontation can occur but it is not the norm, nor does it have to be. This critical process attempts to make people visible to each other, so that they can make use of each other's ideas for improving their beliefs and with that their way of coping with their concerns. That is, it encourages symbiotic relationships rather than confrontations. At the same time, one is to take the other's concerns seriously by redescribing one's sets of beliefs in a terminology which carries them.

Thirdly, to carry out this action in the two-way manner in which I am suggesting—as the back and forth movement between external appropriation and self-reconstruction—is a way of metaphorising the ontology on which a reconstruction is made, which is in each case provided by one of the vocabularies or beliefs systems in conversation (see Kraut, 1986).

And lastly, there is no assumption of whether the aim of the conversation should be consensus (as in Habermas, 1981), or dissension (as in Lyotard, 1979). As Rice and Burbules have argued, one neither knows, nor has to try to determine, the result of a conversation in these or any other terms (1992). To do that is to already unnecessarily impose limits on the results. The holistic view of knowledge espoused here does not allow for the compulsoriness for the adoption of one or another particular belief for, as Quine has shown (1953), there are always various possibilities for adjustment in one's beliefs system when facing tensions. What happens when a hidden assumption is disclosed and the choices that are made or confirmed are something the individual is responsible of, according to the kinds of tensions in her/his particular system of beliefs that s/he is willing to accept. Of course, a person shall be accountable for those decisions before the communities s/he does and should belong to. Let us notice that this does not imply, as has been suggested, that truth is a matter of choice (see for instance Arcilla, 1995, page 69).

An interesting example of an exercise which bears some similarities with the proposal presented in this paper is that by Romm (1994), who created an imagined conversation between proponents of two main approaches in systems thinking, namely Soft Systems Methodology (SSM) and Critical Systems Heuristics (CSH). Rather than a conversation undergoing the full cycle of external appropriation and self-reconstruction proposed in this paper, it is really "a possible critique of the position propounded by [the founder of SSM], by drawing on some of the arguments that may be forwarded by those who wish to defend the possible relevance of critical systems heuristics" (page 1). In this initial presentation it is now clear that the logic of the questions to be asked from SSM is that of CSH, and in this sense it will be an external appropriation of SSM from the perspective of CSH. Even though this exercise by Romm has a rather unilateral character, it nevertheless allows for an expansion of the current debate in systems thinking, by pushing the limits of the arguments from their original boundaries in the way they have been presented so far. In this sense, the participants in the conversation may be pressed to formulate premises which they may *discover* were implicit in their approaches, in the form of hidden assumptions. Romm concludes her paper by saying that "meaningful conversation is [not] rooted in the aim to reach consensual 'agreements'," but in the possibility of taking each other seriously in "an attitude of expansiveness and willingness to confront 'bad news' which locates our position in relation to other possible alternatives and calls for a response" (page 35).

The questions that are asked about a certain approach (SSM in this case), then, expand its scope by adding new dimensions which express other concerns (those of the proponents of

CSH) which one is willing to take seriously. In this way, here criticality is not only expressed in terms of being able to correctly justify or elaborate an argument, or of being appropriately moved by reasons, or of being able to *apply* a theory for describing how power relations shape our thinking and acting, or even about creating thinking which will be acclaimed by many. Rather, it is also but mainly expressed in the acquisition of a new awareness and in the assumption of responsibility for the choices we have made when holding certain beliefs and acting according to them, which were not visible before because of the lack of alternatives available at hand. It is a broadening of the scope of our beliefs and actions, and an act of taking charge of the choices we have made when deciding to hold some beliefs instead of others, in the face of tensions in our web of beliefs. Instead of limiting the scope of our knowledge and beliefs to the limits imposed by the theory of the critical we use, criticality will be limited by the theories which are available at hand, and which may include, depending on the case, particular theories of the social, anthropological, political, or semiotic, or of whatever is the case.

Summary and Concluding Remarks

With this paper I have attempted to elaborate on some elements of special relevance for a conversational form of critical thinking. It should be said that what I have presented here is not by any means a full account of criticality, and that it does not particularly reject the contributions by the various critical approaches available. I first described in general terms some aspects in two approaches which propose such or a similar type of critical thinking, namely the social view by Missimer and the dialectical model of analysis by Paul. In these two approaches critical thinking is taken to be about the comparison and assessment of alternative pieces of knowledge, and not the judgement of one option in isolation. This choice was methodological, rather than theoretical, in that they are choosing between alternative courses of action that which they think is better. My analysis suggests that assessment of a piece of knowledge, strictly speaking, cannot be carried out in isolation.

With the examination of how any piece of knowledge which we distinguish as such necessarily already entails the recognition of alternative pieces of knowledge, I argued that assessment necessarily requires a comparison between alternatives. These alternatives appear in spaces of possibilities from which the piece of knowledge is seen as having picked one. Furthermore, to be understandable in a complete sense, they have to form coherent sets of beliefs which support each other and which constitute a redescription of the original piece of knowledge in question. That is, for being genuine alternatives they at least have to not appear senseless, to appear plausible. I further claimed that these alternatives are not, however, totally self-contained in the text or the set of ideas in question, but they are called forth in the act of distinguishing something as knowledge. Because of this, they also depend on the beliefs of the person who is performing the act of critical analysis. This act implies, at the same time, interpretation and assessment.

In many approaches available in the literature, criticality is taken to rest on a particular kind of questioning taken from a source which functions as a theory of the critical. This has taken different forms: a Marxist view of the social and the economic, or a theory of the knowledge constitutive interests, among others. However, I showed that any theory which is used as a theory of the critical in the sense above will enable the consideration of some alternatives, but at the same time will set unnecessary limits to interpretation and assessment, and effectively is imposing those limits and the theory they come from. I argued that this takes certain questions as being essential or central to human understanding, but that this position is untenable.

Lastly, I presented some elements for a proposal of critical thinking which does not take as the source of critical questioning a predefined theory of the critical, but instead the alternative knowledge available at any given time. The process would first involve an *external appropriation* of an alternative piece of knowledge, in which it is redescribed and asked to answer questions about it whose logic is dictated by one's own vocabulary. This essentially helps one to figure out what the alternative has to offer for addressing one's own concerns. The process would also involve a self-reconstruction of one's own pieces of knowledge in the vocabulary of the alternative knowledge in question, to see whether one's own set of beliefs is able to address and deal with the concerns expressed in it, or if one has simply ignored them and shall make some modifications. This conversational form of critical analysis does not make use of a theory of the critical as the source for the critical questioning of any piece of knowledge, but it is very clear that any such theory, like the ones that have been used until now, would be enormously useful for presenting alternatives and therefore critical questions. These theories would make us aware of alternative pieces of knowledge by different people, which reflect different concerns that may be missing from our own— therefore being more inclusive—and enlarge the scope of our own sets of beliefs. But they cannot exhaust the possibilities of the critical or claim their essentialness apart from the choices made by the person.

In doing this we now take the responsibility for the choices made in holding certain beliefs and acting according to them. Criticality, according to this, importantly involves a becoming aware of one's decisions about one's beliefs and actions, and to the taking responsibility for them as ours.

References

Arcilla, R. (1995). <u>For the love of perfection. Richard Rorty and liberal education</u>. New York: Routledge.

Buckingham, D. (1998). Introduction: Fantasies of empowerment? Radical pedagogy and popular culture. In D. Buckingham (ed.), <u>Teaching popular culture. Beyond radical pedagogy</u> (pp. 1-17). London: UCL Press.

Burbules, N. (1993). <u>Dialogue in teaching. Theory and practice</u>. New York: Teachers College.

Burbules, N. & Berk, R. (1999). Critical thinking and critical pedagogy: Relations, differences, and limits. In T. Popkewitz & L. Fendler (eds.), <u>Critical theories in education. Changing terrains of knowledge and politics</u> (pp. 45-65). New York: Routledge.

Burr, V. (1995). <u>An introduction to social constructionism</u>. New York: Routledge.

Burrell, G. & Morgan, G. (1979). <u>Sociological paradigms and organisational analysis</u>. London: Heinemann.

Davidson, D. (1973). Radical interpretation. In <u>Inquiries into truth and interpretation</u> (pp. 125-139). Oxford: Clarendon Press, 1984.

Davidson, D. (1974). On the very idea of a conceptual scheme. In <u>Inquiries into truth and interpretation</u> (pp. 1283-198). Oxford: Clarendon Press, 1984.

Davidson, D. (1986). A coherence theory of truth and knowledge. In E. LePore (ed.), <u>Truth and interpretation: Perspectives on the philosophy of Donald Davidson</u> (pp. 307-319). Oxford: Blackwell.

Davidson, D. (1999). Reply to Andrew Cutrofello. In L. Hahn (ed.), <u>The philosophy of Donald Davidson</u>. (pp.342-344). Peru (Illinois): Open Court.

Delin, P., Chittleborough, P., & Delin, C. (1994). What is an assumption? <u>Informal Logic, 16(2)</u>, 115-122.

Duhan Kaplan, L. (1991). Teaching intellectual autonomy: The failure of the critical thinking movement. In K. Walters (ed.), <u>Re-thinking reason. new perspectives in critical thinking</u> (pp. 205-219). Albany: State University of New York Press, 1994.

Ellsworth, E. (1989). Why doesn't this feel empowering? Working through the repressive myths of critical pedagogy. <u>Harvard Educational Review, 59(3)</u>, 297-323.

Flood R. & Jackson, M. (1991). <u>Creative problem solving. Total systems intervention</u>. Chichester: John Wiley & Sons.

Freire, P. (1970). <u>Pedagogy of the oppressed</u>. New York: Seabury.

Frye, M. (1983). <u>The politics of reality</u>. New York: Crossing.

Fuenmayor, R. (1990). Systems thinking and critique. I. What is critique?. <u>Systems Practice, 3(6)</u>, 525-544.

Gadamer, H. (1986). <u>Truth and Method</u> (2nd rev. edition in English). New York: Continuum, 1989. Based on the revised and expanded 5th German edition, 1986.

Giroux, H. (1981). <u>Ideology, culture, and the process of schooling</u>. London: The Falmer Press.

Giroux, H. (1983). Ideology and Agency in the Process of Schooling. In <u>Pedagogy and the Politics of Hope</u> (pp. 71-94). Westview: Boulder, 1997.

Giroux, H. (1986). Authority, Intellectuals, and the Politics of Practical Learning. In <u>Pedagogy and the Politics of Hope</u> (pp. 95-115). Westview: Boulder, 1997.

Habermas, J. (1981). <u>The theory of communicative action. Volume 1. Reason and the rationalization of society</u>. London: Heinemann. Transl. by T. McCarthy, 1984.

Halpern, D (1984).<u>Thought and knowledge. An introduction to critical thinking</u>. Hillsdale: Lawrence Erlbaum.

hooks, b. (1989). <u>Talking back</u>. Boston: Southend.

Jackson, M. (1991). <u>Systems methodology for the management sciences</u>. New York: Plenum.

Jackson, M. (1999). Towards coherent pluralism in management science. <u>Journal of the Operational Research Society, 50(1)</u>, 12-21.

Kraut, R. (1986). The third dogma. In E. LePore (ed.), <u>Truth and interpretation: Perspectives on the philosophy of Donald Davidson</u> (pp. 398-416). Oxford: Blackwell.

Kuhn, T. (1970). <u>The structure of scientific revolutions</u>. Chicago: University of Chicago Press.

Langsdorf, L. (1994). The interpretive focus: A prerequisite for critical reasoning. In K. Walters (ed.), <u>Re-thinking reason. new perspectives in critical thinking</u> (pp. 157-184). Albany: State University of New York Press.

Luke, C. (1998). Pedagogy and authority: Lessons from feminist and cultural studies, postmodernism and feminist pedagogy. In D. Buckingham (ed.), <u>Teaching popular culture. Beyond radical pedagogy</u> (pp. 18-41). London: UCL Press.

Lyotard, J. (1979). <u>The postmodern condition. A report on knowledge</u>. Manchester: Manchester University Press. Transl. 1984.

McPeck, J. (1981). <u>Critical thinking and education</u>. Oxford: Martin Robertson.

Malpas, J. (1992). <u>Donald Davidson and the mirror of meaning. Holism, truth, interpretation</u>. Cambridge: Cambridge University Press.

Missimer, C. (1989). Why two heads are better than one: Philosophical and pedagogical implications of a social view of critical thinking. In K. Walters (ed.), <u>Re-thinking reason. new perspectives in critical thinking</u> (pp. 119-133). Albany: State University of New York Press, 1994.

Missimer, C. (1995). Where's the evidence? <u>Inquiry: Critical Thinking across the Disciplines, 14(4)</u>. Also available at:
http://www.chss.montclair.edu/inquiry/summ95/missimer.html

Morgan, G. (1986). Images of organization. Beverly Hills: Sage.

Paul, R. (1992). Teaching critical thinking in the strong sense: Getting behind worldviews. In R. Talaska (ed.), Critical reasoning in contemporary culture (pp. 135-156). Albany: State University of New York Press.

Paul, R. (1993). The contribution of philosophy to critical thinking. In R. Paul, Critical thinking. What every person needs to survive in a rapidly changing world (rev. 3rd edition). Santa Rosa: Foundation for Critical Thinking.

Paul, R. (1994). Teaching critical thinking in the strong sense: A focus on self-deception, world views, and a dialectical mode of analysis. In K. Walters (ed.), Re-thinking reason. new perspectives in critical thinking (pp. 181-198). Albany: State University of New York Press.

Paul, R., & Adamson, K. (1993). Critical thinking and the nature of prejudice. In R. Paul, Critical thinking. What every person needs to survive in a rapidly changing world (rev. 3rd edition) (pp. 229-265). Santa Rosa: Foundation for Critical Thinking.

Plumer, G. (1999). Necessary assumptions. Informal Logic, 19(1), 41-61.

Putnam, H. (1962). The analytic and the synthetic. In Explanation, space, and time. Volume III of the Minnesota studies in the philosophy of science (pp. 358-397). Minnesota: University of Minnesota.

Quine, W. (1953). Two dogmas of empiricism. In From a logical point of view. Nine logico-philosophical essays (pp. 20-46). Cambridge: Harvard university Press.

Quine, W. (1960). Word and object. Cambridge: MIT Press.

Quine, W. (1969). Ontological relativity. In Ontological relativity and other essays (pp.26-68). New York: Columbia University Press.

Rice, S., & Burbules, N. (1992). Communicative virtues and educational relations. In Philosophy of education 1992. Proceedings of the 48th Annual Meeting of the Philosophy of Education Society. Also available at http:// www.ed.uiuc.edu/EPS/PES-Yearbook/92_docs/rice_burbules.HTM

Romm, N. (1994). Continuing tensions between soft systems methodology and critical systems heuristics. Working Paper number 5, 1994. Hull: The Centre for Systems Studies, University of Hull.

Rorty, R. (1979). Philosophy and the mirror of nature. Princeton: Princeton University Press.

Rorty, R. (1984). The historiography of philosophy: Four genres. In Truth and progress. Philosophical papers, Volume 3 (pp. 247-273). Cambridge: Cambridge University Press, 1998.

Rorty, R. (1986). Pragmatism, Davidson, and truth. In Objectivity, relativism, and truth. Philosophical papers, Volume 1 (pp. 126-150). Cambridge: Cambridge University Press, 1991.

Rorty, R. (1988). Representation, social practice, and truth. In Objectivity, relativism, and truth. Philosophical papers, Volume 1 (pp. 151-161). Cambridge: Cambridge University Press, 1991.

Rorty, R. (1989). Contingency, irony, and solidarity. Cambridge: Cambridge University Press.

Rorty, R. (1991). Feminism and pragmatism. In Truth and progress. Philosophical papers, Volume 3 (pp. 202-227). Cambridge: Cambridge University Press, 1998.

Rorty, R. (1995a). Habermas, Derrida, and the functions of philosophy. In Truth and progress. Philosophical papers, Volume 3 (pp. 307-326). Cambridge: Cambridge University Press, 1998.

Rorty, R. (1995b). Is truth a goal of inquiry? Donald Davidson versus Crispin Wright. In Truth and progress. Philosophical papers, Volume 3 (pp. 19-42). Cambridge: Cambridge University Press, 1998.

Scriven, M. (1976). Reasoning. New York: McGraw-Hill.

Sellars, W. (1956). Empiricism and the philosophy of mind. Cambridge: Harvard University Press.

Siegel, H. (1988). Educating reason. Rationality, critical thinking and education. London: Routledge.

Taylor, P. (1993). The texts of Paulo Freire. London: Open University Press.

Toulmin, S., Rieke, R., & Janik, A. (1984). An introduction to reasoning (2nd edition). New York: Macmillan.

Ulrich, W. (1983). Critical heuristics of social planning. A new approach to practical philosophy. Chichester: John Wiley & Sons.

Weiler, K. (1996). Myths of Paulo Freire. Educational Theory, 46(3), 353-371.

Young, R. (1992). Critical theory and classroom talk. Clevedon: Multilingual Matters.

Endnotes

1 In this paper I will not make use of a distinction between understanding and interpretation (for this distinction see for instance Burbules, 1993). A similar but not entirely the same distinction is Rorty's between rational reconstruction and historical reconstruction (see Rorty, 1984), which I will examine in the final section. In general, I have tried to be consistent with Davidson's usage of the term *interpretation* as referring to the figuring out of what sentences and texts mean. In any case, and as shall be clearer later, I take interpretation to be always present in that the interpreter's own beliefs system plays a role in understanding.

2 It is not very clear what Missimer's position is given that the Popperian view is only presented in her paper as a way to avoid being accused of relativism. But it does not seem to play any role whatsoever in her proposal, given that when it comes to the practice of critical thinking it is only justification in the light of alternatives that counts. And with this, *truth* ceases to have any explanatory or regulatory role.

3 Although I am not going to provide an argument for these claims here, I take it that this is common in the work by Freire, in his proposal of a problem-posing education, and work in early critical pedagogy. The repressive potential of such theorisation in that movement, itself interested in emancipation, has been commented by authors like Ellsworth (1989), Weiler (1996) and Buckingham (1998). See also Burbules and Berk (1999) for a comparison of this aspect in the critical thinking movement and critical pedagogy.

4 Something similar to this has been said before a number of times, most notably by Foucault (see for instance Giroux, 1986). A difference, however, as shall be clearer later in this paper, is that I claim that those restrictions can only be seen as restrictions once one can imagine alternatives to that language, and therefore that they do not lie exclusively in it. That is, restrictions are only restrictions *as such* in the act of knowing that there is something beyond them.

5 As explained by Rorty (1979), this holism is based on a rejection to the quest for foundational sentences which can be determined to be true in an immediate way. Sellars' criticism of the Myth of the Given (1956)would have disposed of such sentences in the realm of the empirical, and Quine's criticism of the distinction between the analytic and the synthetic (1953) as a dogma of empiricism would have disposed of them in the realm of the rational. And Davidson would have got rid of the distinction between scheme and content (1974), and with it of any relation of representation between sentences and reality. See also Arcilla (1995).

6 In the endnotes, however, Siegel says that in personal conversations Paul has denied ascribing this relativistic power to worldviews, but that this is not explicit in his texts.

7 This is an allusion to Quine's dissolution of the other two, namely reductionism and the analytic-synthetic distinction.

8 In this paper I am not going to engage on this discussion about whether understanding is required. However, Missimer's (1989) and Paul's (1992 and 1994) arguments point in the direction of an affirmative answer, as well as McPeck's extensive discussion of the subject (1981). See also the discussion by Ulrich about the problems of logicism in Popper's critical rationalism (1983). See also Langsdorf (1994) for a discussion of the role of hermeneutic understanding in critical thinking.

9 This description would have to be softened to allow for the possibility of one same person using different sets of connected ideas or beliefs, or different *interpretive repertoires*, in different contexts and/or for different purposes (see for instance Burr, 1995). In this sense this encounter of vocabularies I am describing here could take place in the same person.

10 This latter case is the resolution adopted by Jackson (1991) for the assumptions he identifies that the different systems paradigms make. He defined problem-contexts as

differently assumed by these paradigms and therefore as having validity only within their limits.

11 Putnam's main concern in his essay was about the analytic-synthetic distinction, which Quine had proposed to eliminate one decade before, and therefore the context is different. However, I am using it here for highlighting some consequences of adopting the holism that Quine's work contributed to.

12 I find the idea of *something that women as women have to say* particularly problematic; however, for the purpose of this paper I am only interested in the interplay of a potential discourse with an actual one.

13 The idea of *radical interpretation* is an extension to Quine's *radical translation* (Quine, 1960). It refers to the interpretation of a totally alien language by observation of the speakers and their verbal and non-verbal behaviour.

14 I am using the ideas of conversation and dialogue without referring to any particular medium (written, oral, etc.).

15 This expression refers to one of the possible ways of engaging the various alternative competing paradigms or weltanschauungen in a given domain, as described by Jackson (1997).

16 Some more recent formulations of critical systems thinking take this line of thinking, abandoning a theory of the critical as a source of critical questioning from above (see Jackson, 1997). The mechanisms for this purpose are still in development.