The *System* Idea and the Act of Knowing

TO WHAT EXTENT IS THE "SYSTEM" IDEA USEFUL FOR UNDERSTANDING THE ACT OF KNOWING?

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ABSTRACT

Some soft and critical emancipatory systems approaches have relied on some version of the idea that in knowing, humans organise the content of experience by means of conceptual schemes. Based on this, they have further proposed ways of describing particular views and beliefs of persons involved in a situation of concern, with the purpose of proposing understanding and/or critique. Furthermore, they use the system idea as a central concept for explaining the idea of a scheme. Paradoxically, however, a radically holistic understanding of the act of knowing suggests that the very idea of a scheme should be dropped. Some implications of adopting that radically holistic view are then examined.

Keywords; system, holism, interpretation, soft systems thinking, critical systems thinking.

INTRODUCTION

These days a lot seems to depend on an idea that may have had its origin in Kant: that in knowing, the knower selects some part of the manifold of experience and organises it, connecting its parts in some way that give sense or meaning to it. This idea is used sometimes, for example, as a central point in the justification of the claim that no worldview can ever be totally comprehensive—and therefore that one should be humble or that no absolute validity can ever be claimed. The linguistic object that performs these functions has been called by different names, including conceptual scheme, conceptual framework, weltanschauung, worldview, context of meaning, and paradigm, among others. The act of knowing is therefore seen as an act of selecting and organising. Conceptual schemes are therefore regarded in this view as playing a central role in knowing, given that without them there would not be sense or meaning. That is, reality, and our experience of it, would be meaningless. Davidson, for example, explains this notion as follows:

> Conceptual schemes, we are told, are ways of organizing experience; they are systems of categories that give form to the data of sensation; they are points of view from which individuals, cultures, or periods survey the passing scene. There may be no translating from one scheme to another, in which case the beliefs, desires, hopes,

and bits of knowledge that characterize one person have no true counterparts for the subscriber to another scheme. Reality itself is relative to a scheme: what counts as real in one system may not in another. (1974, p.183)

In systems thinking this idea has become somewhat foundational for some systems approaches, but particularly interpretive (soft) and critical (emancipatory) ones. Interpretive systems approaches can be said to have been designed to tackle problem situations which are ill-defined, and in which there is a plurality of views about what the problem is. According to Jackson (2000, pp.281-282), some of the characteristics of these approaches are that they do not assume the real world to be systemic, or constituted by systems; analysis of the problem situation is to be highly creative; and models are created to interrogate perceptions of the real-world and to structure debate. Importantly, these models just mentioned are constructed by means of systems ideas, and are thus essentially systemic. They should help the purpose of creating *understanding*—mutual understanding of the beliefs, perspectives, and values of the people involved in a problem situation—as a fundamental step towards learning and improvement (see Checkland, 1981 and 1985). Now, this understanding of other people's ideas would be aided by the description of some basic elements that constitute their conceptual schemes. As these elements are taken to be elements of systems, conceptual schemes are also deemed systemic. Systems would play the organising role of schemes, and what is organised are the various aspects that constitute reality. Checkland, for instance, says that

> the world outside ourselves causes only the matter of sensation. Our brains order this matter and supply the concepts by means of which we understand experience.
>
> [A systems approach] uses systems concepts in order to see the raw data into a particular kind of information, and this is the process occurring in virtually all human thinking. Whether we realize it or not we view raw data via a particular mental framework, or world-view. We observe people voting and see, not 'marks being made on pieces of paper' but 'human beings taking part in the democratic process'. We attribute *meaning* to the observed activity by relating it to a larger image we supply from our minds. The observed activity is only meaningful to us, in fact, in terms of a particular image of the world or *Weltanschauung*, which in general we take for granted. (1981, p.215)

Critical emancipatory systems thinking, according to Jackson (2000, pp.328-330), use systems ideas to reveal the sources of alienation and oppression in social situations, in them models are used to enlighten the alienated and the oppressed about their situation and their possibilities, and the intervention is conducted in such a way that the alienated and the oppressed begin to take responsibility for their own liberation. Within emancipatory systems thinking, the approach known as Critical Systems Heuristics (CSH) and other forms of what is called *boundary critique* make use of the *system* idea in a similar way to that of Checkland mentioned above, but with a critical intent (see Ulrich, 1983 and 1987; and Midgley, 2000). Systems would represent schemes that still have an organising role, although the emphasis is put on their selective power; that is, on how they include some of those aspects, and exclude some others. Given the finite capacity of earthly human beings, it is postulated that it would be impossible for us to take into account all the possible aspects relevant to some system design, thus making it necessary to draw

a boundary—a system boundary—separating the aspects that will be considered from those that will not. It is said in Critical Systems Heuristics that the *decision*, so to speak, concerning which aspects to include and which to exclude, is somehow arbitrary, and cannot be rationally justified. A main tool it provides is a set of twelve questions—called boundary questions—with which that system boundary can be described. If it is used by the disempowered—who are normally regarded in this approach as the ordinary non-expert citizens—they can reclaim the possibility of having a say in public decisions that affect them. Ulrich has associated this idea of system boundary with that of a scheme:

> Our assessment of the merits and defects of a proposition depends on both observations of fact and judgements of value. What *facts* we observe (e.g. regarding the consequences and possible side effects of a proposed action), and equally what *values* we judge appropriate (e.g. regarding purposes and people to be served), in turn depends on our reference system. The moment we change our *boundary judgements* as to what belongs to the system of concern and what falls outside its boundaries, the relevant facts and values change, too. (….) Thus boundary judgements strongly influence the way we 'see' a situation. (2000, p.252)

There would be a universe of possible facts and values, but just which ones we will take into account will be determined by the boundary judgements we make, thus defining the system of concern.

The *system* idea, then, is put here to play the interpretive role of giving sense and meaning, and the political role of including and excluding elements of reality.

The groundbreaking work of Donald Davidson in philosophy of language in the 1970s, and particularly his paper *On the Very Idea of a Conceptual Scheme* (1974), constitutes a direct attack on the intelligibility of that concept. The attack is on the idea that there is a distinction to be made between *scheme* and *content*; where content is what is organised and scheme what organises it. Even though his work is well known in the world of Anglo-US philosophy, and despite the fact that philosophers as well-known and influential as Richard Rorty have followed him in this, there seems to have been little response to this challenge in the world of systems thinking.

The rejection of the scheme-content distinction would have important implications for both interpretive and critical emancipatory systems thinking. For one thing, it entails a radically different view of what it is to know, and of what it is to interpret someone else's views or ideas.

Given that Davidson's work is not well-known in the Systems Thinking Movement, in this paper I will have to explain at some length his ideas. I will start by presenting Willard Quine's rejection of the analytic-synthetic distinction, which is a basis and precursor of Davidson's own account. Then I will expound Davidson's argument against the scheme-content distinction, and its relation with the problem of interpretation. Because of this, I will also explain briefly some aspects of Davidson's work on interpretation and of Quine's work on meaning and translation. Following this, I will present a development of my own on those theories, that attempts to make the conclusions more applicable to the kind of interpretation and understanding that interpretive

and critical emancipatory systems thinkers may have had in mind when they advanced their proposals. Finally, I will attempt to explore some consequences that these ideas on interpretation may have on our understanding of interpretive and critical emancipatory systems thinking.

THE ANALYTIC-SYNTHETIC DISTINCTION

The analytic-synthetic distinction has its origin in Kant, and constitutes a possible way of developing a notion of conceptual scheme. Let us imagine one possible instance of this idea: There is experience, which is like an enormous or perhaps infinite variety of, so to speak, bits of sensation. But those bits would not mean anything, would be meaningless, unless the knower can provide some *concepts* with which s/he can organise them and put them in a larger net of concepts and ideas. The concepts would not constitute knowledge in themselves, but would play that organising role mentioned above. There might even be sentences which explain those concepts, without adding anything to our knowledge about reality. Those would be analytic sentences:

> Kant conceived of an analytic statement as one that attributes to its subject no more than is already conceptually contained in the subject. (….) A statement is analytic when it is true by virtue of meanings and independently of fact. (Quine, 1953, pp.20-21)

An example might perhaps be "a triangle has three sides". It would be analytic because presumably it is already contained in the *concept* of triangle to have three sides. In other words, *three-sidedness* would be part of the meaning of the term *triangle*, and that would be so, independently of the ways of the world.

Analyticity and Synonymity

Quine wrote his essay *Two Dogmas of Empiricism* (1953) as an attack on both reductionism and the analytic-synthetic distinction, which he regarded as the two dogmas of empiricism. If his attack is right, then, it should produce, in his own words, "a blurring of the supposed boundary between speculative metaphysics and natural science", and a "shift towards pragmatism" (1953, p.20). His strategy, which I will only briefly present, can be outlined as follows: Firstly, arguing that meaning is not the same as extension or naming, he reduces the problem of meaning to that of synonymy. This claim is usually attributed to Frege: *Morning star* and *Evening star* have the same extension—in this case both name the same celestial object, Venus—but their meanings are different. Secondly, he looks at some proposals for making sense of the notion of synonymy, rejecting them all because they all presuppose some notion of analyticity instead of illuminating it; and thirdly, after having claimed that analytic statements cannot really be distinguished from synthetic ones, he presents a positive conclusion in terms of his holistic view of knowledge.

The problem is one of knowing when we have two synonymous expressions, without confusing synonymity with sameness of reference, and without relying on a previous notion of sameness of meaning, which is precisely what is to be analysed or explained. With this in mind, Quine will reject Carnap's idea that a statement is analytic if it is true under every possible state

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description[1], the idea of a meaning as a definition (in natural languages), and the idea that synonym terms are those which can be interchanged in every possible expression in which they do or might occur, without producing any change in the truth value of those expressions.

His conclusion, then, is that because it is obvious that the truth of a statement depends on both language and facts,

> one is tempted to suppose in general that the truth of a statement is somehow analyzable into a linguistic component and a factual component. Given this supposition, it next seems reasonable that in some statements the factual component should be null; and these are the analytic statements. But, for all its a priori reasonableness, a boundary between analytic and synthetic simply has not been drawn. That there is such a distinction to be drawn at all is an unempirical dogma of empiricists, a metaphysical article of faith. (1953, pp.36-37)

The rejection of analyticity is also a rejection of the idea of meaning as an *entity*, and of what Quine has described as the myth in semantics of a museum in which the exhibits are meanings and the labels words. Different sets of labels would simply represent different languages (see Quine, 1969). But the problem arises as soon as one tries to disentangle the contributions of meaning and fact in one's belief system.

Holism and Verification

As the title of Quine's essay announced, it is actually two dogmas that he is after. The analytic-synthetic distinction is only one of them, and the other one is reductionism. Reductionism refers to the doctrine that states that any of our meaningful statements should be, in principle, reducible to a finite set of statements representing immediate experience; that is, expressed in sense datum language. To understand the connection between reductionism and the analytic-synthetic distinction it is important to see that the reducibility of a statement to immediate experience suggests that one way of specifying the meaning of a sentence—this time not of a term—is to determine the statements in sense datum language to which it is reducible. Quine describes this link as follows:

> As long as it is taken to be significant in general to speak of the confirmation and infirmation of a statement, it seems significant to speak also of a limiting kind of statement which is vacuously confirmed, *ipso facto*, come what may; and such a statement is analytic. (1953, p.41)

Now, the positive picture presented by Quine as a consequence of rejecting the two dogmas, is a holistic one: No single sentence is to be linked in a unique way to experience, or stimuli, or sense data; rather, they are logically linked with each other forming a net whose edges are only fastened by experience. It is the totality of one's belief system that has to face experience, and any tension in the system arising from it will trigger changes that can occur in any place in the

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[1] A state description is a set of atomic statements describing the state of the world, which have been assigned values of truth or falseness. The idea is that a state description would represent one way the world could possibly be without logical contradiction.

net. This way, Quine suggests that individual terms or statements cannot be compared with reality for confirmation or testing: Instead, the unit of comparison is the whole of our knowledge. As he puts it, "the unit of empirical significance is the whole of science" (p.42).

Let us notice that Quine's argument against the analytic-synthetic distinction does not necessarily rule out schemes altogether. It certainly rules out an idea of scheme like the one presented at the beginning of this section. But Quine's view of language still makes the distinction between experience, that which is in contact with the edges of our nets of beliefs, and the net of beliefs itself. It is just that now the scheme is the whole set of beliefs, and therefore it is a holistic one.

THE SCHEME CONTENT DISTINCTION

The notion of a scheme comes together with the notion of content. They constitute a system of something that organises, and something that is organised. Now, if Quine kept a [holistic] version of the scheme-content distinction, Davidson will reject the whole distinction, and with it both concepts: "Content and scheme (…) came as a pair; we can let them go together" (1988, p.165). The radical holism of Davidson that results from this idea has implications of a great importance: It is the rejection of the very idea of knowledge as representational (see my other paper in this volume, Mejía, 2002). One consequence of this is that Davidson is effectively rejecting empiricism altogether:

> I want to urge that this second dualism of scheme and content, of organizing system and something waiting to be organized, cannot be made intelligible and defensible. It is itself a dogma of empiricism, the third dogma. The third, and perhaps the last, for if we give it up it is not clear that there is anything distinctive left to call empiricism. (1974, p.189)

A first clarification is that schemes are to be associated with languages. The idea is that it does not make much sense to think of the mind as making use of categories imposed by its scheme, while at the same time handling a language with its own categories. I take this remark by Davidson as something learnt from the linguistic turn in philosophy; and particularly the change of thinking in philosophy from *ideas* as the central entities of the analysis, to *sentences* or linguistic structures in general (see Rorty, 1979).

Schemes as Organising and as Fitting

Davidson recognises two main general kinds of functions that have usually been attributed to conceptual schemes in the literature: that of organising (systematising, dividing up, putting into categories, etc.) something, and that of fitting (predicting, accounting for, facing, coping with, etc.) something. That *something* which must be organised or fitted could also be put into two general categories: reality (the world, nature, etc.), and experience (sensations, sense-data, the given, stimuli, surface irritations, etc.)

The main problem with the idea of organising, according to Davidson, is that one cannot organise a single object, unless it consists of many objects itself. One can only organise a plurality of

things. If reality, and experience, are to be taken as single things, then they simply cannot be organised. And then, if one takes them as consisting of a multitude of things, then this means that they have already been individuated somehow before language could have the opportunity to organise them. But this categorising is precisely the task that language or the conceptual scheme was supposed to carry out!

Talk of a language as organising something makes sense, perhaps, if one can already account for the individual objects which are to be organised; that is, if there is another language available to one which individuates those objects in a way in which the other language does not (see, for instance, Kraut, 1986). But let us notice that this is not what was expected from schemes. The whole idea has changed, for it is not reality that is being organised, but reality *as described in a different language*. It ceases to strictly be a relation between a language and reality, and becomes a relation between languages.

Now, the question of whether reality or experience are single or manifold, is in itself misguided. The problem is, how does one know that there is a plurality of things in nature if not by describing that plurality using some language available? As Rorty puts it, in discussing Kant's distinction between intuitions and concepts, and his idea of synthesis,

> It is not an evident pre-analytic fact that such a manifold exists, how can we use the claim that sensibility presents us with a manifold as a premise? How, in other words, do we know that a manifold which cannot be represented as a manifold *is* a manifold? More generally, if we are going to argue that we can only be conscious of synthesized intuitions, how do we get information about intuitions priori to synthesis? How, for instance, do we know that there is more than one of them? (1979, p.154)

The idea of schemes as fitting reality presents a different picture. A first difference consists in that it is not terms, as in the previous case, but whole sentences expressing a proposition which is the subject matter. It is only sentences which can fit, predict, cope with, or match either reality or experience. This time, Davidson argues that fitting experience, or the evidence, or reality, or the facts, adds nothing new to the concept of *being true*. That is, something that can be characterised in those words is simply said to be true. But what is it that can make a sentence, theory, or whatever is the case, true? The most direct answer, which Davidson adapts from Tarsky (1956), is that a sentence *s* is true if and only if *s*[2]. This way, the sentence "my father's name was Fernando" is true if and only if my father's name was Fernando. There is no indication whatsoever as to the procedure by means of which I or any other person could find out whether it is actually true, or to the need for the existence of something else so that the sentence is true. Davidson says in this respect that

> nothing, however, no *thing*, makes sentences and theories true: not experience, not surface irritations, not the world, can make a sentence true. *That* experience takes a certain course, that our skin is warmed or punctured, that the universe is finite, these facts, if we like to talk that way, make sentences or theories true. But this point is put

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[2] This sentence is called by Tarsky a T-sentence, in the special case in which the sentence to be examined (s) is in the same language as the meta-language of the interpreter. It is important to notice that s is only *named* in its first occurrence in the T-sentence, whereas in its second occurrence it is *used*.

> better without mention of facts. The sentence 'My skin is warm' is true if and only if my skin is warm. Here there is no reference to a fact, a world, an experience, or a piece of evidence. (1974, p.194).

At least two important ideas can be derived from the quotation above. First, Davidson deals here with the problem of assigning epistemic properties to objects which are non-propositional in character. It is neither reality nor experience—no *thing*—which can make sentences true, for neither reality nor experience are propositional; that is, reality does not speak a language, or "splits itself, on its own initiative, into sentence-shaped chunks called 'facts'" (Rorty, 1989, p.5)[3]. If reality or experience have epistemic properties, then they are not a manifold that needs to be organised. If they have epistemic properties then they are already part of a system of beliefs. And second, it is not some particular set of sentences—for instance, foundational sense-data sentences, or observational sentences—which make the rest of them true: The sentence "the universe is finite" is true if and only if the universe is finite; just as the sentence "Bardot is good" is true if and only if Bardot is good (see Davidson, 1967). In fact, for Davidson truth is a basic notion that cannot be analysed into anything like correspondence, coherence, consensus (by the knowledgeable, or in an ideal speech situation, etc.), or any other possibility (Davidson, 1990). It is, nevertheless, an essential notion required for having any language at all.

How Are Our Beliefs Connected to the World?

If we accept that there is no need to postulate *things* in reality or experience which make true sentences true—and which in that sense would be what those sentences *correspond* to, or what they *represent*—then we would have to conclude that talk of fitting reality would be simply misleading. For there is nothing to fit, and therefore the relation between sentences and reality cannot be one of fitting. What kind of relation is it, then? Sellars had already argued that it is causal, and not justificatory or representational (1956). Similarly Davidson will say in relation to sensations, which are part of experience, that

> the relation between a sensation and a belief cannot be logical since sensations are not beliefs or other propositional attitudes. What then is the relation? The answer is, I think, obvious: the relation is causal. Sensations cause some beliefs and in *this* sense are the basis or ground of those beliefs. But a causal explanation of a belief does not show how or why the belief is justified. (1983, p.311)

> No doubt meaning and knowledge depend on experience, and experience ultimately on sensation. But this is the 'depend' of causality, not of evidence or justification. (1983, pp.313-314)

Now, as said in the introduction, the notion of scheme is used in soft and emancipatory systems thinking as a means of description, and then critical judgement or assessment, of views possibly held by the various persons involved in or affected by a situation. The interpretation of other people's views, then, would take place by describing the schemes which give rise to those views.

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[3] This idea of the relation between epistemic and non-epistemic entities was extensively discussed by Sellars (1956). Davidson has only recently acknowledged his debt to Sellars (Davidson, 2001, p.xvi).

How can then we understand interpretation once we have abandoned the scheme-content distinction?

THE PROBLEM OF INTERPRETATION

It is my contention that neither soft nor emancipatory systems approaches have seriously examined what happens in the act of interpretation. It is true, however, that some tools—like root definitions and CATWOEs in Checkland's Soft Systems Methodology (SSM)—help participants clarify and understand the various perspectives brought into the debate (see Checkland, 1981; and Checkland and Scholes, 1991). Similarly, even though boundary judgements used in Ulrich's Critical Systems Heuristics (CSH) have a critical essence, they can be said to also aid in the clarification and understanding of proposals of systems designs. The question I am interested in, however, is how do we know that we are understanding correctly someone else and, for example, that we are attributing her/his view the correct boundary questions? As far as I know there is no discussion of this in the literature on these approaches, and therefore I conclude that interpretation has largely been taken for granted.

I will start with Davidson's formulation of the problem:

> Kurt utters the words 'Es regnet' and under the right conditions we know that he has said that it is raining. Having identified his utterance as intentional and linguistic, we are able to go on to interpret his words: we can say what his words, on that occasion, meant. *What could we know that would enable us to do this? How could we come to know it?* (Davidson, 1973, p.125, my emphasis)

Radical Interpretation

I start again with Quine's and Davidson's works on, respectively, translation and interpretation. To elucidate the answers to these questions, Davidson follows a strategy of Quine's (Quine, 1958 and 1960), which is to imagine the extreme position of someone trying to interpret the language spoken by people in a community, a language of which s/he has no clues at all, and which is radically different from any other language s/he already knows or has been in contact with. This person, by being in this position, is labelled a *radical interpreter*.

The radical interpreter will start by matching sentences of her/his language with sentences as uttered by the natives in particular circumstances. Quine's example is that of the interpreter noticing that the utterance "gavagai" is expressed by the natives when in presence of a rabbit in their proximity (Quine, 1960). This induces in the interpreter a first working hypothesis that "gavagai" can be translated as "here's a rabbit", or "look, a rabbit" or some similar sentence. The first sentences to be worked out, with the possibility of error always latent, are those which, like that of gavagai, can be associated to particular circumstances that can be picked out by the interpreter. Importantly, let us notice that doing this involves observing patterns of that kind in the linguistic behaviour of the speakers. *Those are the same patterns that allow one to recognise that the beings observed speak a language*. Something else that is of importance is that it is sentences which the interpreter works with, rather than words or expressions, for it is sentences

which are uttered, as it is only them and higher order linguistic expressions—like for instance theories, which can be taken as very complex sentences—that have unity.

The Intertwinement of Meanings and Beliefs

Related with this there are some themes here that Quine touches, but which are developed more extensively by Davidson (see Davidson, 1973, 1974, and 1983). One of them is the connection between meaning and belief. This connection can be seen in the fact that even though the interpreter does not have any previous notion of beliefs or meanings about the speakers and their language, yet s/he must decipher both at the same time. If s/he knew all the meanings of the language—and knew how to tell what propositional attitudes the native speaker has, or at least the attitude of believing true—s/he could know what the native believes. But even if this can be correctly assumed most of the time in cases in which both speaker and interpreter are said to speak the same language, how does one know that the assumption is justified? There are slips of the tongue, malapropisms, and very frequent and non-mysterious cases of different uses of the same word or expression (see for instance Davidson, 1986). Conversely, if s/he knew all the beliefs the native speaker holds, then s/he could get to know what the meanings of the sentences are. The problem, however, is how to attribute both to the speaker without assuming either. LePore has put this point like this: "We cannot hope to discover interpretation first, and then read off beliefs and vice versa" (1986, p.18).

The solution to this puzzle constitutes a crucial theme. The idea is that the sensible way forward is to grant the native speaker truth in her/his beliefs as much as it can be conveniently possible, fixing some beliefs in this way and then solving for meaning. This principle is usually referred to as the principle of charity, that Quine attributes to Wilson (see Quine, 1969; and Wilson, 1959). Expressed in a negative way, it states that an interpretation that holds the speaker wrong in most matters is likely to be a bad interpretation. The example above shows just how this principle works in practice: By translating "gavagai" as "here's a rabbit", the interpreter takes the native to be correct about the presence of rabbits, in the circumstances in which s/he uttered the sentence, and this is precisely what allows him/her to suggest that as a possible translation. Supposing the speaker to be wrong in most cases—e.g. that the native normally mistakes rabbits for dogs and that "gavagai" is to be translated as "here's a dog"—would probably mean that the interpretation is wrong, rather than that the speaker is wrong her/himself. The use of the principle of charity in interpretation does not mean, of course, that there will be no disagreements. It simply implies that for disagreement to make sense, there must be a lot of agreement on many other things. It is not simply a plea for solidarity or sympathy either but mainly a necessary restriction for the very idea of language to make sense. The simplicity of the example above should not be an obstacle for extrapolating the conclusion to cases of sets of sentences rather than single sentences, of sentences less dependent on particular occasions of utterance, and of sentences which are formed in a less direct connection with the sensory organs, for the original considerations have not ceased to apply to these cases (for instance, see Davidson, 1967, 1995, and 1999). For example, the existence of malapropisms and the fact that we can normally understand the intended meaning also suggest that charity applies in these not-necessarily-occasional sentences (see Davidson, 1986).

The *System* Idea and the Act of Knowing

As Malpas has pointed out, the two-dimensional relation between beliefs and meaning has been transformed into a three-dimensional relation that includes truth (see Malpas, 1992). The connection between truth and translation has been established in that the meaning of a sentence is its truth conditions. This way, "es regnet" and "it's raining" mean that it is raining; and that it be raining is the truth condition of both sentences. The interpreter takes those truths—according to her/his view, for there is nothing else available to her/him—that s/he takes the native speaker to believe, as determining the meaning, if one likes to talk that way, of the sentences uttered by her/him. Furthermore, the need to use the charity principle in interpretation, and the intertwinement between meanings and beliefs constitute an indication that most of our beliefs must be true, even if any one of them can at any moment be doubted and proved false.

In radical interpretation, then, the interpreter can be seen as producing a theory of meaning for the native speaker's language, as well and at the same time as a theory of the truth of his/her beliefs. But it can be argued that a theory of meaning is also a theory of truth for the native speaker's language. Taking into account Quine's considerations on analyticity and synonymy (see Quine, 1953) and his criticism of the "museum view of meanings" (1969), by giving for each sentence in the natives' language (the object language), a sentence in the interpreter's language that is true if and only if the original one is true, a theory of truth for the speaker's language provides all there is to the notion of meaning[4] (see Davidson, 1967 and 1973). Expressed in other words, "translation succeeds only if it preserves truth, and the traditional aim of translation is to preserve meaning" (Davidson, 2000, p.70). As Rorty has remarked, although in the different context of interpretation of texts of authors from the past, "you will not know much about what [they] meant before figuring out how much truth they knew" (Rorty, 1984, p.251).

As the reader will have noticed, the determination of truth that is involved in the process of interpretation, occurs without the mediation of conceptual schemes.

INTERPRETATION ACROSS BELIEF SYSTEMS

Interpretation, then, requires and actively involves a reading of reality from which it can be made. In other words, an interpreter is necessarily a language user and a holder of beliefs. But it might seem that the paradigm of interpretation across languages, which is the basis of Quine's and Davidson's examples, does not so neatly apply to interpretation across viewpoints or belief systems within the same language, which is what may impact on the application of interpretive and emancipatory systems approaches. At least two questions are involved in this new issue. What is the relation between a language and a belief system? And what is the relation between

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[4] Some authors have criticised the centrality that Davidson attributes to the concept of truth (see for instance Rorty, 2000; Williams, 1999; and Horwich, 1998 and 1999). Noting that sentences like "it is true that this landscape is beautiful" and "the sentence 'this landscape is beautiful' is true" add nothing—except rhetorically—to "this landscape is beautiful", most of them favour a *deflationary* account of truth that only grants this notion some limited rhetoric and expressive power (in sentences like "everything in that report is true" which cannot or may only be awkwardly expressed by sentences not including the word "true"), but not explanatory. For the purposes of my discussion here, it is simply important to note that these deflationary views—like Quine's, Williams', and Horwich's—still have to rely on the *endorsement* of a sentence as a basic element in language. It is this endorsing which is of importance for my purposes.

interpretation across languages and interpretation across belief systems? In order to address these questions, I will firstly briefly discuss what it may mean to share a language.

To Share a Language

Quine and Davidson have said in passing that the problems of radical translation/ interpretation to also appear when speakers of the same language try to communicate. For Quine (1969, p.46), "radical translation begins at home. Must we equate our neighbor's English words with the same string of phonemes in our own mouths? Certainly not; for sometimes we do not thus equate them." Similarly, Davidson claims that "the problem of interpretation is domestic as well as foreign: it surfaces for speakers of the same language in the form of the question, how can it be determined that the language is the same? (….) All understanding of the speech of another involves radical interpretation" (1973, p.125).

Whether the language spoken by speaker and interpreter is the same is, then, always a hypothesis that can be proved wrong and for which justification may *sometimes* be needed. So sharing some rules or conventions—the rules or conventions of a language—cannot be central to what it is to speak a language. The point is that an interpreter constructs a theory of meaning for the speaker s/he is engaging in conversation with, that fits *that speaker on that occasion*. This theory of meaning, although very likely to be useful for her/his interpreting skills for future occasions, is never enough for guaranteeing successful interpretation in the future, not even for the same speaker. Any possible differences in the use of old words and expressions, any newly created words and expressions, any slips of the tongue, any possible malapropisms, and any related features that cannot be anticipated, will render any old theory of meaning useless to some extent. And yet language-users cope with all these new experiences. Perhaps even more straight to the point, and more startling, too, is Davidson's conclusion that

> there is no such a thing as a language, not if a language is anything like what many philosophers and linguists have supposed. There is therefore no such thing to be learned, mastered, or born with. We must give up the idea of a *clearly defined shared structure* which language-users acquire and then apply to cases. (Davidson, 1982, p.446, my emphasis)

What distinguishes us as language-users is, instead, the capacity to continuously construct and reconstruct our theories for understanding others—theories of meaning—usually at the very moment at which communication occurs (see Davidson, 1982). And this capacity cannot be understood correctly if one tries to separate meaning from truth and beliefs.

There is, then, an important sense in which languages are not shared, or at least in which this cannot be taken for granted. The skills of radical interpretation permeate even the so-called domestic cases in which the same language is spoken, and even more so in cases in which for some reason words and expressions appear to be used differently.

To Speak a Language and to Hold a System of Beliefs

The *System* Idea and the Act of Knowing

As mentioned before, a theory of meaning constructed by an interpreter is also a theory of truth. It can be seen as producing sentences in the interpreter's language that somehow translate or describe the sentences uttered by the speaker. But then what is it for a sentence to belong to the interpreter's language? And does this have any relation with holding a belief system?

Given the relationship between meaning and truth, one might say that a sentence that belongs to the interpreter's language is one which s/he understands to directly give truth conditions (see Davidson, 2000)—for, if the language is the same, T-sentences would be of the form "the sentence *s* is true if and only if *s*". However, at first sight, at least, the idea of giving *truth conditions* still seems to be obscure, not less than that of belonging to a person's language. But, we should then take into account that in Tarski's T-sentences, which are of the form "*s* is true in L iff *p*", *s* is only named—and could be replaced by any other description of the sentence— whereas *p* is used. From here an important insight can be developed: An interpreter's knowledge of the truth conditions of a sentence may be reflected in her/his ability to use that sentence, as opposed to simply naming it. But then what is it to be able to use a sentence? In the case of a word one would say that to know how to use it is to know a great deal of meaningful sentences which include that word, and the truth value of many of those sentences. In the case of whole sentences, one might as a first step claim something similar: To know how to use a sentence would be to know a great deal of other sentences which are somehow directly related to the original one—let me call it the *translated sentence*—and their possible truth value. In general, it does not make much sense to say that one understands a sentence if one does not know correctly a great deal of *related sentences*.

Now, I have remarked that an important question is about the relation between interpretation *across* different belief systems, and interpretation *across* different languages. A problem with this way of phrasing the question is that the idea of interpretation between different readings of reality seems to presuppose that it has been established that the readings are different, but it has not been established yet what interpretation between them is like. The difficulty lies in the fact that if one has established that the readings are different, then one must have already produced an interpretation which recognises the existence of disagreements or differences.

What can be said, taking this into account, is that for some purposes it might be useful to draw a distinction between meanings and beliefs; and that, exactly, one does in interpretation. But a consequence of giving up the analytic-synthetic and the scheme-content distinctions is that this separation has no clear rules. If one is talking about words then one may have, as it were, and using Rorty's phrasing, *dictionaries* and *encyclopaedias* as separate books (see Rorty, 1988). But it is not principled what should go in each of them, or which changes in one's beliefs should propel one to modify one's encyclopaedias and which to modify one's dictionaries. In a strict sense the phrases found in the dictionaries do not give the meaning of words, except in the mild and non-absolute sense that they constitute sentences which one takes to be less contingently and more certainly attached to the word they supposedly define, as compared to those in encyclopaedias. And something similar can be said about whole sentences as opposed to single words.

Related Sentences and Interpretation Across Belief Systems

The *System* Idea and the Act of Knowing

I have argued that the interpretation of a sentence endorsed by a speaker can only be sensibly deemed correct if the interpreter attributes her/him many other related beliefs, and can count her/him right in a great deal of them. And, as also argued before, there is no single belief which is necessary to that list of related beliefs, and no set of them is sufficient—although for practical purposes in most cases one is usually well justified in reaching a conclusion and producing an interpretation.

In radical interpretation, when an interpreter produces a translation of some sentences uttered by a speaker, s/he does it on the basis of an overall pattern of truth and consistency over many sentences and occasions of use, as suggested by the charity principle. This makes interpretation essentially holistic, in a way that is radical once one abandons any notion of scheme or of content that might revive reductionism. In more standard cases of interpretation, that truth and that consistency just mentioned are largely presupposed and only rarely questioned, on grounds of previous acquaintance of the use of particular linguistic expressions by members of the community. But whether with evidence weighed and used, or simply presupposed, the attribution of a belief to a speaker by an interpreter entails that the latter is prepared to attribute the former many more beliefs, expressed in sentences related to the originally translated ones. These *related sentences* would effectively be ones that the interpreter her/himself takes to be entailed by the translated ones, and that therefore s/he thinks the speaker will—or should—agree with. In fact, it can be said that an interpreter does not attribute a speaker a belief, but many *at the same time*.

It is important to point out, however that it is not possible to draw too clear lines separating translated sentences from related sentences. My argument for the fuzziness of this line is a simple one: When writing a text, for example, the speaker—who is a writer in this case—will have very probably tried different phrasings for her/his sentences, will have tried different structures, will have removed sentences which s/he thought were less relevant or more obscure, and will have added others. It was probably not written in its final form from the first time. Any change entails from the speaker some beliefs about the relations between the sentences in the text as it was, and the ones involved in the modification. This suggests that all these sentences are, for the speaker, related to each other. The final text will be constituted by the chosen possibility from among the many tried, under various criteria and restrictions. But it remains difficult to point at this one or at another of the possibilities tried for the final text—and the ones not tried, too—by the speaker, and say that it is the one that really or best conveys what s/he wanted to express.

If this happens on the side of the speaker, then it also happens for the interpreter trying different interpretive possibilities. When the focus of one's attention is a single, simple, and relatively small sentence—like *gavagai*—then the line between a translated sentence and related sentences may be more clearly drawn. However, if we part ways with Quine and Davidson, and stop concentrating on sentences of this kind, then it becomes more difficult to draw it, for reasons similar to the ones mentioned in the previous paragraph. How would an interpreter describe what was said by the speaker, if s/he is not to repeat the exact words uttered and instead use some words s/he knows how to use? And, strictly speaking, a whole theory can be taken to be a very large and complex sentence.

The *System* Idea and the Act of Knowing

The conclusion I draw from this is that, because of their active involvement in the translation of sentences, a widened notion of interpretation is necessary that should include related sentences. In this sense, it is part of someone's interpretation of a text her/his rephrasing of its sentences, and the additional related sentences used to represent or describe the speaker's ideas.

Related sentences, as I have tried to show, depend on the interpreter's belief system, and as such do not have to converge for different interpreters. They may not even have to be recognisable by the speaker as something s/he would say or agree with. They simply constitute descriptions of what the speaker said, that cannot be clearly separated from what s/he actually said.

SYSTEMS THINKING AND A HOLISTIC VIEW OF KNOWLEDGE AND INTERPRETATION

Finally I have come to the point where I will examine some implications that accepting the previous argument may bring to bear on interpretive and emancipatory systems thinking.

Non-Neutrality of Descriptions of Viewpoints

A first point consists in the fact that what the application of the systemic tools these approaches provide to clarify people's perspectives—e.g. root definitions and CATWOEs in SSM, or boundary questions in CSH—produces, is related sentences describing those perspectives and explaining their implications *as believed by the person applying the tools*. That is, they are related sentences because they are related according to someone's views or belief system The description of someone's views is made from someone else's belief system, and cannot be taken to be neutral in any way. Let me call this characteristic *interpretation dependence*, to acknowledge the fact that interpretation depends on the interpreter's belief system.

This suggests that the systems analyst or expert can play a crucial role in any intervention process in a situation, if s/he is the person doing the formulation of the alternative perspectives to be considered. Those formulations will carry the mark of the interpreter. In practical terms, one possible effect might consist in the fact that some perspective not favoured by the expert might look worse in her/his formulation, in comparison with a formulation made by its proponent. In an example that I have used elsewhere, Midgley, using a variant version of Ulrich's boundary critique, suggests that

> there is a conflict in many Western societies between the liberal discourse of citizenship (where all people are seen as having equal value because of their status as rational beings) and the capitalist discourse of good employment practice (which limits the responsibility of organisations to their employees alone). (….) If unemployed people were to be fully included along with employees in the primary boundary of industrial organisation, 'good employment practice' (indeed the whole capitalist system of organisation) would become untenable. (Midgley, 2000, p.145)

Midgley effectively suggests that the boundary of concern of liberal discourse is wider than that of capitalism with respect to this issue. But this depends, of course, on how one interprets the

discourses of liberalism and capitalism. For instance, people strongly in favour of capitalist and neo-liberalist positions who advocate less onerous responsibilities to be set on companies—in terms of tax, salary and employment regulations, etc.—might disagree with this way of establishing the boundary. And they would do it based, for instance, on the role of private interests of entrepreneurs in the creation of more jobs and more wealth for the whole society.

Now, a problem of knowledge imposition may appear here as the interpretations are produced by someone considered an expert in some way—for example a critical systems thinking expert—and therefore they may be accepted unquestioningly by the other non-expert persons involved in the intervention or in the situation.

The Givenness of Content

The scheme-content distinction takes content to be given, somehow fixed in reality or experience. It is non-inferential, uninterpreted, incontrovertible, and in a sense inescapable. In Checkland's work, it is called "raw data" (1981, p.215), emphasising the fact that it has not presumably gone through the organising and sense-making process that interpretation is supposed to be. Moreover, his approach is structured in such a way that the content of some real-life situation is to be expressed in as detailed a way as possible—e.g. by means of rich pictures—to then *look at* it using different schemes with which different interpretations are then produced. Let us notice that knowledge of the content itself is not questioned, or problematised, and therefore is taken for granted. What is deemed problematic is the ways in which the content can be organised into meaningful definitions of systems, which are better called *holons*. As these ways of organising content are somehow arbitrary and necessarily limited and partial, it is then suggested that a number of them should be formulated and then discussed. The problematisation, to repeat, exists in this approach only at the level of the holons defined by means of schemes, but not at the level of content. This will further allow these approaches to suggest a comparison between what is expressed in the various holons, and reality itself (see Checkland, 1981; and Fuenmayor, 1991).

In approaches such as boundary critique, the general idea is a very similar one. Not all the aspects relevant to a situation can be taken into account and considered in, for instance, a social system design. Therefore, one would have to draw a [system] boundary, effectively leaving some possible aspects out of the system under consideration. The definition of the boundary would be arbitrary, being constituted by boundary judgements which are taken to be the synthetic a priori judgements of practical reason (see Ulrich, 1987). Content, in this case, is constituted by the universe of possible aspects that might be included or excluded from systems designs. Again, content is not problematised, but only the way in which it is organised by means of schemes, which in this case are systems.

How can we understand what these approaches are proposing, if we reject the scheme-content distinction? The answer is, I think, a relatively simple one: The presumed content—raw data, possible aspects, etc.—establishes a set of rather uncontroversial beliefs which might be taken as a starting point for a discussion that follows from and is based on it. Uncontroversial would simply mean that the persons involved in the discussion do not find reasons to question them, rather than that they are *certain* in some epistemological sense. In principle, they could still be challenged if someone feels that is appropriate. Because of this, non-theoretical ideas (in the

Kantian sense), normative or otherwise, could also be included as long as they are also non-controversial, because they would still be useful as starting points. It is the controversial parts which would then be questioned by means of comparisons with each other as well as with the non-controversial parts. Instead of raw data, content, experience, aspects of reality, etc., it would be better to talk about a provisional *basis of agreement*.

A last point to highlight in this respect consists in the fact that, given that content has been left unproblematised, these approaches do not worry about being insufficient, or simply wrong, in its postulation (of content). Traditional scientific methods have worried about getting observations right. My contention is that interpretive and emancipatory approaches have not, not because of some commitment to a non-objectivist epistemology, but precisely because they have taken observations for granted in their reliance on content and, more generally, on the scheme-content distinction. But, in general, the same care should be taken with all the ideas constituting the basis of agreement, regardless of whether they are descriptive, normative.

The Arbitrariness of Scheme

In the same way that we should not assume a content which is to be taken as given, we should not assume schemes which are to be taken as arbitrary. The failure to distinguish between scheme and content suggests that there is neither givenness nor arbitrariness in beliefs, as determined by some epistemological theory. As the argument above suggests, total arbitrariness would imply, among other things, the impossibility of understanding. And expertise about normative elements can and has been postulated, for instance by those who believe their religious leaders are some kind of "experts" in morality.

Now, in interpretive and emancipatory systems thinking the arbitrariness of schemes has been taken as an indication that validity can only be obtained by means of consensus (see Ulrich, 1983), and that in interventions the role of experts should be restricted to process facilitation, or at the most to a participation on an equal basis as that of the persons directly involved in the situation being intervened. How then can we understand the contribution of the experts as well as that of the actors in the situation, if we reject the ideas of the arbitrariness of schemes and of the impossibility of expertise?

The answer is, I think, again of a relatively simple nature. The central point is related to the uncertainty about relevant issues in a situation. There may be domains in which *we* are very uncertain about our knowledge about them, and in which no known (*to us*) experts seem to exist. This produces a, let me call it this way, *horizon of uncertainty*. But apart from these there may be domains in which local, and in some cases occasional, knowledge, held by non-expert actors but not by those we would normally call the experts, may be highly relevant to the situation. Let me call it a *basis of locality*. But any discussion about the delimitation of those three areas *is the same discussion* as the very inquiry produced in each intervention, and is therefore local, and cannot be determined philosophically or epistemologically.

CONCLUDING REMARKS

The *System* Idea and the Act of Knowing

In this paper I argued, following Davidson, that the scheme-content distinction should be rejected. Some of the implications of this rejection were explored in the last section; namely interpretation dependence, manifest in the non-neutrality of interpretation of viewpoints; the problematisation of content as a category of given and uncontroversial sources of knowledge; and the problematisation of scheme as a category of arbitrary knowledge and as a justification for restricting the role of experts. The title of this paper was, however, to what extent is the *system* idea useful to understand the act of knowing? It is time now to spell out the answer to this question, which was left mostly implicit in the whole argument.

If Quine's and Davidson's main conclusions are right, then knowledge is essentially holistic, and at least in that sense systemic. One cannot know something, without at the same time knowing many other things. Interpretation is, by the same token, also essentially holistic. An interpreter can only interpret a speaker's utterances by means of looking at the general pattern that her/his sentences produce, with reality as the background of that investigation. And, of course, But is it systemic in the way systems thinkers have argued? No. For that idea of systemicity, which for instance Fuenmayor attributes to Kant (Fuenmayor, 1997), and which I have claimed interpretive and emancipatory systems thinking uses, is just an instance of the scheme-content distinction. And, paradoxically, it is reductionist in its postulation of the content, of that universe of elements constituting the manifold of experience or of reality, each with its own independent existence and knowable separately.

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