

Relevance and the Peircean Conception of Truth

William Downes
University of East Anglia

1. Coding and Inferential Semiotics

In chapter one of *Relevance: Communication and Cognition*, Sperber and Wilson attack theories of communication which rely solely on the notion of *coding*. In a code model of communication an arbitrarily connected *signifier-signified* pair is the 'coding' device. The 'signifier' part of the pair is the means of transmitting a fixed message content which consists of 'signifieds', usually interpreted as 'concepts', from one communicator's mind to the other. Communication is limited to the information coded in the sign. This forms the folk picture of communication, based on what Reddy (1979) has called 'the conduit metaphor'. It is beautifully illustrated by Saussure's 'circuit' diagram in the *Cours de Linguistique Générale* (Saussure, 1962: 27-28).

These views underlie semiotic theories descended from Saussure, for example Hjelmslev (1961), Barthes (1967), early Eco (1979), or Jakobson (1962). Such theories cannot be correct. For one thing, all miscommunication would have to be attributed either to noise, or deficient knowledge of the code. For another, no message could transcend the literal meaning of the signs conveying it. *Your water is lovely and hot now* could not be used to get you to make the tea, or have a bath, or turn off the water heater, or an indefinite number of other things. Artificial devices such as hierarchical 'connotative' or 'second order' levels of 're-coding' are needed by Saussurean theories to deal with such phenomenon (see for example, Barthes, 1972: 114-115).

But the notion of coding is itself interesting. To be considered coded, a relation must be representable as a function of the form *if* _ , *then* _ , between two entities, which is a way of storing information. Of course, to be a function, the relation must be regular and determinate. Strictly speaking, a natural, causal relation, could be considered coded from an informational point of view. For example, a neurological structure could be said in some cases to biologically code information abstractly representable as an input-output function with respect to some specific cognitive activity. But there is also in the term 'code' a flavour of the 'artificial' with respect to the informational relation, as if the coded relation must be arbitrarily established by convention. In such cases, one simply knows the coded relation, *i.e.* the code, or one doesn't. An important question is how the notion of code relates to other logico-semantic notions, such as *analyticity, definition, convention, rule, axiom, inference, deduction, meaning postulate, etc.* Arguably, 'coded' can't be simply contrasted with 'inferential', since a meaning postulate represents an inference, for example;

for any x, if x is a bachelor, x is unmarried,

but this inference represents the arbitrary coding of that information. Rather it is a looser sort of non-demonstrative inferential relationship that contrasts with coding.

We must agree with Sperber and Wilson that a theory of the sign which is wide enough to accommodate non-natural intentional behaviours, including

communication, must involve some sort of non-coded inference. This is clear from Grice's (1957, 1975) analysis of meaning_{nn} and implicature, as well as philosophical accounts of interpretation like Davidson's (1984). This is the case because, since such stimuli do not determine their correct construal without risk, some sort of non-coded inference from data to explanation must be involved. The same is true of 'natural' signs. The world does not determine its correct interpretation. (By contrast, the world of a frog may do so because of a directly 'coded' link between eye, fly and tongue.) A general semiotics of this sort is tantamount to a theory of how sign users inferentially interpret the world, which is exactly what Relevance Theory is as a theory of cognition, although semiotics and Relevance Theory have different sources in intellectual history.

C.S. Peirce's semiotic provides a general theory of signs which incorporates both 'coded', demonstrative, and 'non-coded', that is non-demonstrative, inferential relationships. It is therefore an error to condemn semiotics in general as dealing only with codes. That is only the case within the Saussurean or semiological tradition. However, that said, a more powerful semiotics resolves itself into a general theory of stimulus interpretation, that is, a philosophical theory of knowledge or an empirical psychology of perception and comprehension. (This is what might be meant by Sperber's phrase *the semiotic illusion*.) It is worth noting that the same thing happens to Pragmatics as a domain of study. The remaining issue would simply be whether different kinds of stimuli, *e.g.* visual perception, musical sounds, natural language form, linguistic intentional behaviour, non-linguistic intentional behaviour, even aesthetic texts and objects, *etc.*, are comprehended according to different specialized principles. To the degree that stimuli are processed in the same way, or we can distinguish principled differences (*e.g.* with respect to language or intentional behaviour) we have the domain of an *interpretation theory*. Both Relevance Theory and Peircean Semiotics operate in this space, competing with contemporary philosophical (analytic philosophy), literary (post-structuralist), linguistic-pragmatic (Speech Act and Gricean theory) and psychological theories of interpretation / perception / comprehension / understanding (such as Coherence Theory). It is this welter of competing frameworks with differing aims and practices that have created problems for the acceptance of Relevance theory as a dominant paradigm.

We can use Peirce's semiotics as an example of an *inferential semiotics*. Peirce's thought has had a pervasive influence in analytic philosophy, particularly in America. It can be seen to-day in the work of Quine, Putnam, Davidson, Rorty and Habermas in the context of Pragmatism today. Peirce's concept of the sign is, 1) inferential, 2) equivalent to a theory of *inquiry* and therefore a theory of *belief fixation*, hence a theory of the *central system* according to Fodor (1983), and 3) equivalent to the study of logic. Peirce construed logic broadly as the 'method of methods', the development and justification of the theory of inquiry and both of these as the whole part of his theory of signs (see Fann, 1970; Misak, 1993). His programme of research was logical, not psychological, and in that way very different than Relevance Theory.

2. Relevance and Truth

My aim is to look at these two inferential interpretation theories, Sperber and Wilson (1986, 1995) and Peircean Semiotics (1960) in one particular respect; with respect to the notion of truth and how it relates to relevance. My working

idea is that Sperber and Wilson's 'relevance' and 'truth' are intimately related. It is possible that Sperber and Wilson's notion of relevance has the same extension as the notion of 'truth' but under a different description. In particular, Peirce's normative concept of truth, which drives his semiotic, alludes to the phenomenon of relevance under 'a different description' - that relevance as a psychological notion governing perception/interpretation serves truth as a logical category of inquiry. To connect relevance and at least one concept of truth would be an important result. One reason for this would be that the basic principle governing human cognitive processing, namely relevance, whether it be biologically based or *a priori* in some more Kantian way, is at the same time a partial account of inquiry (= hypothetical investigation into the truth). The nature of human cognitive processing automatically produces and improves a primitive folk science (the beliefs of the encyclopedia and more entrenchedly, the dictionary) as it comprehends stimuli, including communicative intents, and *must* do so. In this way one could also argue that relevance was adaptive in terms of natural selection.

We should try to be precise about our use of the term 'truth'. First, we are not talking about whether a given proposition is actually true or false. Actual truth or falsehood relates to relevance in an interesting way, for a false proposition can be relevant partly by virtue of that fact. That will relate to the issue here, but is not the main point. Second, the minimalist semantic concept of truth, made explicit by Tarski's (1956) formal correspondence theory and forming the basis for formal semantics, is not the issue either. Convention T shows us what a theory of truth for a language should yield; a metalinguistically interpreted set of t-sentences which is an empirical theory of truth for a language. But this purely 'internalist' picture remains unrelated to the patterns of behaviour and stimuli which provide the actual evidence for belief and interpretation. Davidson (1986) notes that it is the ability interpreters have to apply the intentional idiom to behaviour that would give empirical content to the truth theory. So we are not directly interested in the semantic concept of truth. Rather, we want to relate truth to the process by which behaviours and phenomena are actually interpreted, that is, to the domain of relevance where the formal theory of truth would gain content. Peirce's concept of truth fits the bill because of its relation to inquiry or belief fixation. Third, other concepts of truth also relate to belief attribution; for example, Davidson's own *Coherence Theory of Truth and Knowledge* (1986). I have argued elsewhere¹ that relevance yields truth in Davidson's sense, not as a guiding principle, but as a by-product of interpretation. But, our concern here is with Peirce, because of his development of an inferential semiotic.

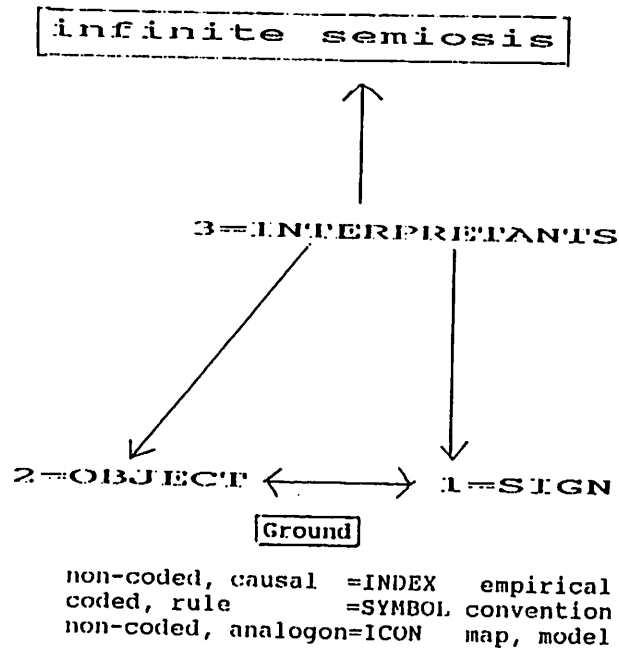
3. Peirce's Triadic Account of the Sign

This section sketches out Peirce's inferential theory of the sign and relates it to his account of inquiry (see Figure 1). First, I must point out that there are several well known problems in dealing with Peirce in this context. On a purely practical dimension, there is no one definitive text as a source for Peirce's changing views. They must be extracted from diverse sources in Peirce's (1960) own collected writings and those of his commentators. (I have relied

¹ I examined the interaction of Relevance Theory and Davidson's (1986) coherence theory of truth in a talk given to the *UEA Philosophical Society*, Nov. 9, 1995.

TRIADIC CONCEPT OF SIGN

"A sign ... is a first which stands in such a genuine triadic relation to a Second, called its *Object*, as to be capable of determining a third called its *Interpretant* to assume the same triadic relation to its object in which it stands itself to the same object."



NORMATIVE CONCEPTION OF TRUTH

The opinion which is fated to be ultimately agreed at the ideal limit of inquiry by all who investigate is what we mean by the truth. Concept of truth is relativized to process of inquiry which finally approximates to an ideal limit. Truth then is the *final or normal interpretant*. If *H* is true, then if inquiry relevant to *H* were pursued as far as it could fruitfully go, *H* would be believed. Note that inquiry is constrained by a reality independent of belief and this is represented as the *object of the final interpretant*. This is what would be known at the ideal end of inquiry.

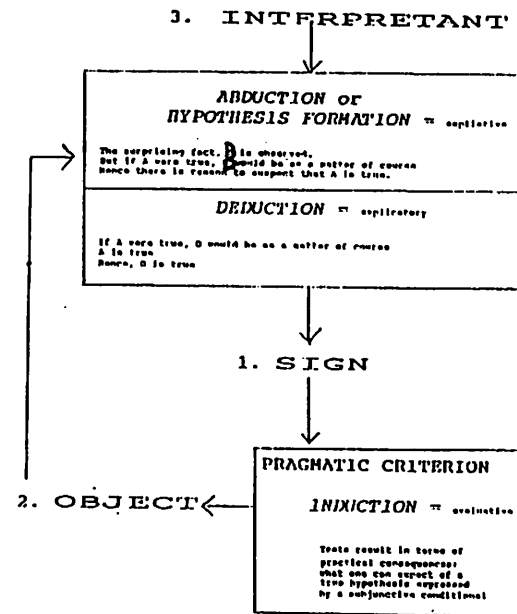


Fig. 1 Theory of Sign as Theory of Inquiry

heavily on Fann, 1970; Gallie, 1966; Misak, 1991, and various accounts in Ketner *et al.* 1981).

Figure 1. displays the irreducibly triadic nature of the sign in Peirce's thought. A sign is constituted *iff* there is a certain set of relationships and not otherwise. I include one of Peirce's many definitions in Figure 1. (Peirce 1960, Vol.2: 156 / 2.274). It states that a 1=*SIGN* is a 'first', some experienced 'particular suchness', that stands in a relationship to a 'second' called its 2=*OBJECT*, something that exists only relative to the first in reaction with it, so that the relation of first and second weakly 'determines' ('evokes' or 'delimits' or 'requires an answer') a 'third', the 3=*INTERPRETANT* which thus assumes the same triadic relation to the object. This third is abstract and general, a hypothetical explanation of the relation between sign and object. It is true of the relation either by definition or explanatorily. Such justifications of the sign relation is its *ground*. Symbolic signs are definitional. Indexical signs are grounded in terms of causal generalizations. Iconical signs are grounded in analogy.

It is obvious that the interpretant is also a sign. Therefore it must also enter into the triadic relation. Thus we have a regress of interpretation/explanation which is termed *infinite semiosis*. The process of interpretative explanation (or 'thought' as Peirce puts it) is 'open', each explanation intrinsically seeking further interpretative explanation in a kind of inner and outer, private and public, dialogue. To the degree that the meaning of a sign is its interpretants, this is what Peirce means when he says that *meaning is virtual*.

The process of interpretation is in fact halted in a diversity of ways. In each tokening it is halted by a given 'dynamical' interpretant. One such case is if the object of the sign is an intentional state of a communicator, *e.g.* communicative or informative intents. Another way is in terms of 'final' interpretants, about which more later. It is worth remarking that the objects of semiosis are not crudely considered referents. They are constructs of semiosis and are internal to it. The connection between sign and world is *via* the pragmatic criterion (see Fig. 1), the practical empirical consequences of the sign considered as an hypothesis about the world.

Relevance Theory can be inserted at this point. It offers a principle which cognitively regulates the process of interpretation, and brings it to a halt in the minds of particular interpreters. In cases of perceived phenomenon, it will maximize relevance. In cases of intentional communication, it identifies the informative intent with the optimally relevant interpretation of the sign.

4. Inference and Inquiry

Peirce relates the three aspects of the sign to the forms of inference in such a way that sign interpretation is identical to the process of inquiry. Inquiry is the process by which beliefs are established. The normative investigation of this, the method of methods, is the subject of logic. Hence the interest in the formal clarification of valid inference and its relation to natural reasoning.

The right hand side of Fig.1 displays Peirce's alignment of the three forms of inference with the three aspects of the sign. The assignment of 3=*INTERPRETANTS* is *abduction* or *hypothesis*, acting on an input of new information *D*. Normally *D* consists of a set of properties P_1, P_2, P_3 etc. which

need explanatory unification under some hypothesis of the form of a previously stored or newly constructed conditional, 'If *A* were true, *D* (namely P_1, P_2, P_3 etc.) would be as a matter of course' where *A* designates a grounded relation of 1=SIGN and 2=OBJECT. As can be shown, hypothesis can be formally reduced to a *deduction*, so the sign *D* (P_1, P_2, P_3 etc.) can be inferred as a logical consequence of the hypothesis as premiss. The sign thus becomes a consequence of the hypothesis and can be used as a pragmatic test of its correctness in terms of practical consequences. Repeated success of an hypothesis, a sign interpretation, lends it *inductive* strength and warrants its deployment in further sign interpretation. Thus, a virtuous circle is established reinforcing successful hypotheses, and weeding out those that are pragmatically unsuccessful. Hence a theory of sign interpretation is of necessity a theory of inquiry.

Peirce added two interesting constraints to the process of abduction. Aware of the expenditure of time, energy, thought involved in hypothesis, he proposed an *economic constraint* on hypothesis, hence on inquiry. Secondly, impressed by the human ability to form good hypotheses, he postulated that it may have a biological basis, a point also made by Chomsky with reference to a 'science forming capacity' (Magee, 1978: 186), although more recent speculations in this area have proposed ever more specific capacities (Pinker, 1994: 411ff.).

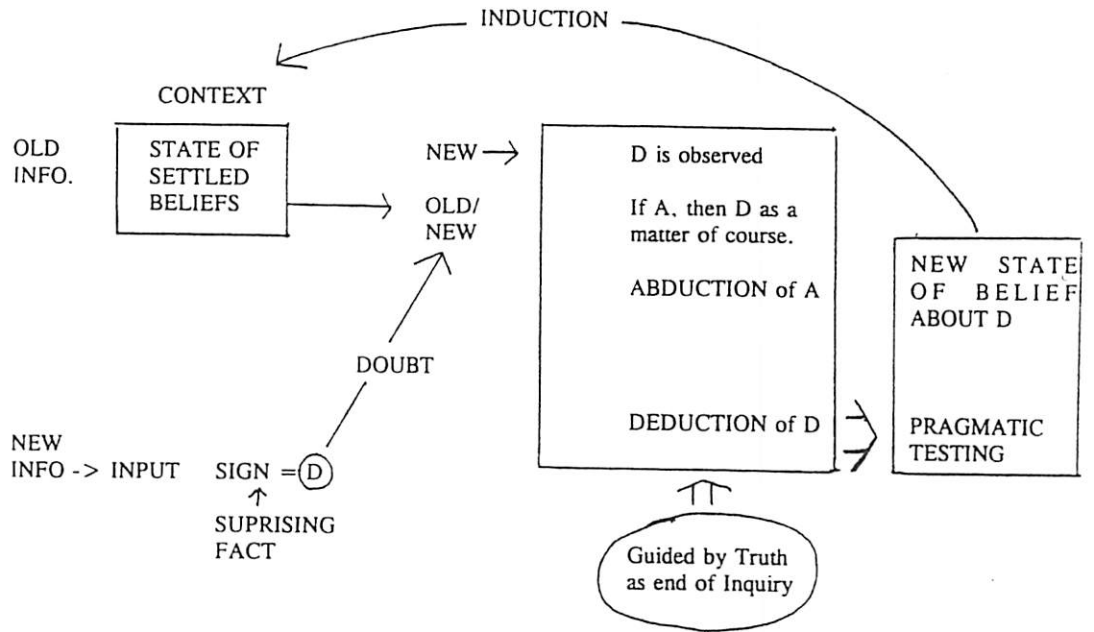
5. Relevance Theory and Peirce's Inquiry

Let us now try to map relevance onto inquiry. In Fig. 2, I have tried to align the two theories to highlight similarities and differences. For example, Peirce's sign is a stimulus in Relevance Theory. Both theories use the results of successful processing or hypothesizing as contexts for future processing. In Relevance Theory each successful use makes an assumption stronger and more potentially manifest. In Peirce, this would be pragmatic testing and inductive support. But Peirce does not make explicit the mechanism by which the conditional is selected (out of the very large number of possible ones), while Relevance Theory does do this in terms of its theory of context.

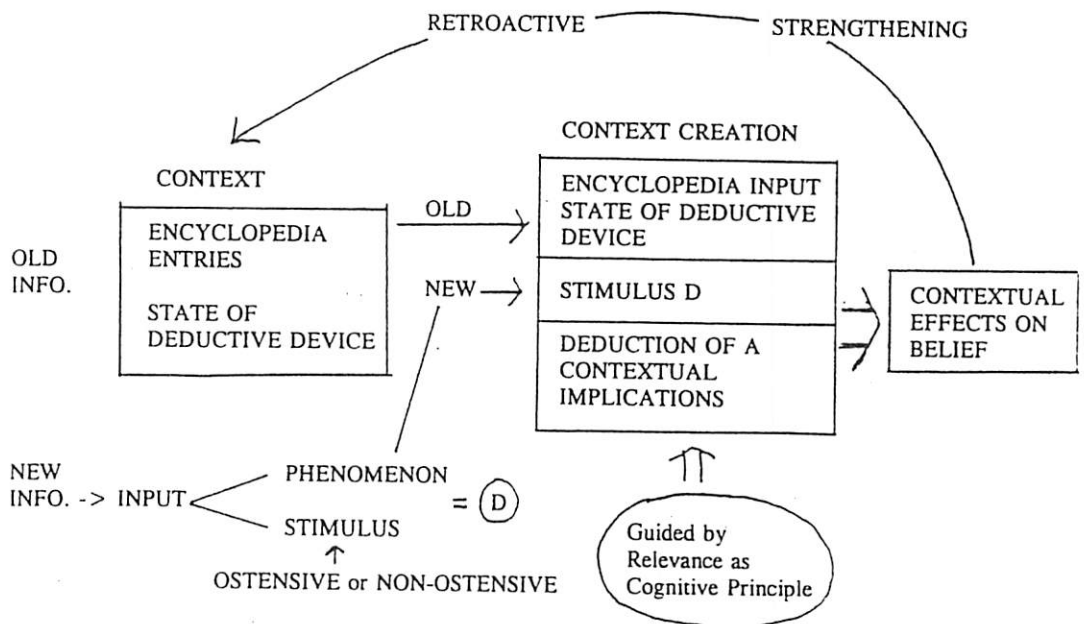
The central relationship is that in Relevance theory the sign is interpreted in such a way as to maximize or optimize the impact which it has on the store of beliefs already held. The premisses which are accessed to combine with and interpret new information (*i.e.* equivalent to Peirce's 'hypothesis') are just those which produce the most, or at least an adequate number of contextual effects, given economy of effort. Context selection is the functional equivalent of abduction. It is a way of both cognitively generating it and making it more explicit. It says that when interpreting a sign, within the constraints of economy, construct interpretants of the sign which have the largest empirical effect on the stock of beliefs; that is, attribute the largest possible empirical content to the sign that you can.

Contextual effects are quite precise (Sperber and Wilson, 1986: 108-116):

- (1) Introducing new beliefs in the form of contextual implications.
 - (2) Strengthening already held beliefs.
 - (3) Erasing beliefs in favour of the stronger in case of contradiction.
 - (4) Retroactive strengthening, in which beliefs are strengthened by their successful use in interpretation.
- Taken together these have the overall effect of improving the representation of the world, as is pointed out by Sperber and Wilson (1986: 103-104). This is made even clearer in the Postface to the 2nd edition (1995: 263ff.) where relevance is restated in



Peirce's Semiotic



Sperber and Wilson's Relevance Theory

Fig. 2

terms of 'positive cognitive effects' in relation to cognitive goals, which can be epistemic. I would argue that such a functional processing teleology is deeper than a contingent goal, rather it is an intrinsic goal of the system, in all likelihood preprogrammed in the organism because adaptive. We can argue that the system is designed to deliver overall more truths than falsehoods in the long run (this might further illuminate Davidson's, 1984, point that beliefs must *a priori* be for the most part true), especially in everyday middle sized domains which have practical consequences, since this is a *sine qua non* both for the intersubjectivity of interpretation, for survival and for the achievement of most other goals (but see 7 v below). This Peircean point is made explicitly by Sperber and Wilson (1995: 263): "The function of a cognitive system is to deliver knowledge, not false beliefs". Each successful interpretation adds to and strengthens the beliefs mobilized by that interpretation. The belief stock, or *encyclopedia*, is thus continually subject to pragmatic learning and testing, in terms of its practical consequences. It would appear then that relevance is implementing inquiry in Peirce's sense.

Furthermore, this constant inferential 'fitting in' of new stimuli to mobilized encyclopedic beliefs will tend to produce consistency or *coherence*. In fact, interpretation is a way of fitting the old and new together such that they cohere and cognitive success may be measurable as degree of consistency of strong beliefs in some domain. Such coherence also signals truth, consensual success in inquiry. New input will have (or may be managed to have) lower relevance in that domain - it is simply further confirmation of what you already know. This is an area for further research.

Before going on, it is worth noting that different inputs relate to relevance differently in different types of processing. I have distinguished three main types, displayed in Table 1. for the sake of brevity. Each type has a different relation both to relevance and truth. Thus, II *Hermeneutic Interpretation*, the intentional discourse characterizing informative intents and perhaps realizing a specialized form of cognition, yields interpretations which it seems odd to call true rather than correct. Intentional communication also has the special status such that, even if the discourse is misleading or persuasive or otherwise not truth-oriented, to convey what is overtly intended remains a priority. To understand what others specifically want us to understand about their intentional states is a separate domain of everyday reasoning governed by its own principles. It must be distinguished from the third general type, III *Critical and Explanatory Interpretations*, which utterly transcend the intentions of the text producer and yet are true interpretations (Downes, 1991: 291ff.).

6. Peirce's Concept of Truth and Relevance

For Peirce, the interpretation of signs is equivalent to developing an empirical theory to explain sensory input (the *signans*). The three forms of inference characterize this process of theorizing and testing. If this is the case, then sign interpretation is necessarily by its very nature *the attempt to arrive at actually true hypotheses*. Thus, even naive interpreters in everyday situations are aiming at the truth and learning from experience. Peirce sees truth as the 'regulative principle' governing such inquiry. He develops this into a theory of truth. *It is the hope that, inquiry is such, that if X is true and the process of inquiry as described above is followed as far as it fruitfully can be by a community of rational inquirers, then X would be believed. Thus, the truth is what would be*

Table 1.

TYPES OF INTERPRETATION
AND RELATIONS TO RELEVANCE

I. PHENOMENAL INTERPRETATION

Natural signs. Relevance maximized subject to economy. Institutionalized as a special case of Inquiry in the 'method of the natural sciences', if such exists.

11. HERMENEUTIC INTERPRETATION

Intentional communication verbal and non-verbal. Relevance is optimized to determine intended message.

111. CRITICAL AND EXPLANATORY INTERPRETATION

(a) Weak Implicatures are those for which the interpreter takes responsibility. In one type of these the interpreter creates a context where an intentional sign is treated as a phenomenon and understood in ways that transcend the intentions of the communicator.

This produces a parallel layer of interpretation accompanying II, and is used to formulate replies.

Used in interpretative and explanatory contexts in social sciences, such as history, psychoanalysis, literary criticism, and everyday contexts such as gossip.

(b) Weak Implicatures in Poetic Effects. A wide and uncontrolled range produced by poeticalness of form e.g. parallelism, (and see Jakobson, 1962). Verbal play and art.

consensually believed at the ideal end of inquiry (see Misak, 1991: 43; compare Putnam's (1981,1988) explanation of truth as "*idealized rational acceptability*"). There would be little point of hypothesis formation, deduction and pragmatic-inductive testing without a tacit commitment to the reliability of its outcomes, but because of the fallibility of the process only overall and for the most part, in the long run. Ultimately, it is an ideal norm. (I don't think that this is a *moral* regulation or norm, although it could be developed that way, but something intrinsic to and thus inferable from how minds process sensory input; 'quasi-necessary' is how Peirce defines his study of signs Peirce, 1960, Vol.2: 134 / 2.227.) In other words, the norm governing reasoning is that truth reveals itself to our species as a consequence of and within the sign relation (=inquiry).²

For some propositions, inquiry has already apparently gone as far as it fruitfully can go; the end of inquiry is actual for the moment. But note that this is relative to all background assumptions, and their implications, and so on, *etc.* being also equally consensually established by inquirers. Hence the end of inquiry will always remain ideal. The relevance of evidence is a test of the stage that inquiry has reached. Consider: *Today, Norwich, England has only one utilized passenger railway station within the official city limits.* Inquiry has gone as far as it usefully can for the community and there is universal consensus about this belief at this time. Hence, if I proposed further evidence of the truth of this belief, it would be viewed as irrelevant as it could have no contextual effect. The belief could not be further strengthened or weakened or erased according to the normal canons. Nothing can be relevant to it. Any remark about its truth status would be *boring*. Its empirical indubitability, along with millions of other such propositions, supports, braces the framework of encyclopedic beliefs, as background to those propositions upon which contextual effects *can* take place. But the complete actual truth is what would be believed by the community of inquirers (sign users) at the *ideal* end of inquiry. This is an abstract, practically unachievable state, towards which things must, ought to, tend, unless otherwise prevented, because of the quasi-necessary nature of comprehension. The actual truth reveals itself as a reflex of signification, being its *real objects* and *final interpretants* at the ideal end of inquiry.

I have argued that the consequences of the operation of relevance as an empirical principle governing cognition *automatically* tends towards the same state as inquiry into the truth. Both the really true and the actually relevant are products of mind conceived of as semiosis. All this is tantamount to claiming that truth at the ideal end of inquiry as the regulative principle of sign interpretation covers the same phenomenon but described differently, in terms of ideal epistemic outcome as functional goal, as a psychological theory of relevance. How the different descriptions interact is of interest. Relevance itself only suggests its function. The truth characterization provides a functional account of the biological system (Downes, 1993). However, Relevance Theory gives an account of the cognitive processing mechanism which doesn't need to explicitly refer to truth, but only implicitly in terms of the addition, strengthening and cancellation of beliefs. Methodological solipsism - implicitly a 'justification' account of truth - makes this possible. But since actual empirical stimuli are being processed by an automatic inquiry engine, as Fig. 2 shows, actual improvement in representations, more truth, *ought ideally* to result.

² Whether 'truth' or 'justification' is what drives interpretation is a current debate within philosophy. It depends wholly on one's conception of truth and the metaphysics one finds acceptable. See, for example, the discussion in Rorty (1995). For a new survey of relativisms see Harré and Krausz (1996).

The most relevant understanding in each case would lead to the best possible and only possible agreed representation of the world at an ideal limit, on the metaphysical assumption of the principle of bivalence. This would be one sort of final interpretant.

At that ideal moment, all possible contextual effects have already infinitely strengthened all equally infinitely manifest infinitely strong beliefs and having already made manifest an infinite number of mutually consistent infinitely strong beliefs and all their logical consequences, and so on *etc.*, none are revisable or erasable, identically over all possible cognitive systems. At that ideal moment, nothing could have any further contextual effect and hence nothing could be relevant. At the same time, there is no way what is actually true, the truth, could further reveal itself to any device that could represent it. If what is true is exhausted, as it must be, by that which is propositionally representable, then at that ideal moment the truth is known. *This is a relevance account of truth as the ideal limit of cognitive processing.*

(It also, by the way, demonstrates why Barthes, Derrida and others associate the ideal truth grounding of signs, the Word, with idealized mind, the *logos* or an all knowing God. But this is a false analogy based on the ancient syncretism of Platonism with the Judaic personal-historical concept of the transcendent. Just because this *hypostatic* interpretation of the ideal moment cannot exist as an authoritative guarantee in the way that Platonist and socio-politically motivated Judeo-Christian religious culture insisted it must, isn't a reason for *Nietzschean panic*. It is Peirce's 'unreasonable doubt' not to hope that 'what is' constrains what evolved and fallible cognitive systems can come to believe, such that languages can gain a Tarskian content which makes rational confidence in and growth of both knowledge, science, action and their liberating critique possible in principle. Relevance Theory suggests such hope is structurally intrinsic to the human species. This is a central debate of our time, the Enlightenment and its critics, see footnote 2.)

7. Objections

There isn't space to deal with objections. But five general classes can be identified. These are:

- i) loose uses (S&W, 1986: 233-34)
- ii) figurative language
- iii) relevance of actually false propositions
- iv) non-truth oriented discourses
- v) no actual improvement in truth

The first three involve propositions which are false but which are nevertheless relevant. But this is only apparent. The falsehood leads to an improvement in truth. The relation of truth and relevance must be examined over time and over sets of related contexts. In the case of both literary and scientific metaphors, relevance is achieved through analogical reasoning (Black, 1962, 1979; Gentner, 1982; Hesse, 1980). To construe is to work out implicatures which are plausibly true of both domains; to see the relevant isomorphism of the domains. If these implicated relationships between the domains weren't plausibly true, they wouldn't be derived. In scientific analogy, taking structural isomorphism of domains as literal, as possibly true hypotheses about new

areas, is a device to gaining new truths. The same point is made about fiction in Sperber and Wilson (1995: 265).

In (iv) and (v) one can argue that socio-historical factors interact with relevance in actual discourses and their contexts in complex ways to systematically affect the relation to truth. Material interests, authority and consensual 'hermeneutic horizons' of tradition may censor from consciousness or coercively recommend beliefs in order to regulate social life *contra* experience. This 'weights' the calculation of relevance in ways that systematically distort its tendency towards improving truth. There is a deep relationship between any individual's cognitive system and the intrinsic limitations of any single life-span, the social nature of 'personhood' necessarily lived within the horizons of social structures with imperatives of group co-ordination, conflict management *etc.* that frustrates this *a priori* tendency. Note that the original social context of hominid evolution must have been very different from that of the actual 'civilized' historical mass societies. Peirce's inquiry is fundamentally social. Truth requires consensus among a community of inquirers and, we must now add, no distortions of inquiry.

Intentional communication (Hermeneutic in Table 1.) seems protected from this since it is usually in everyone's interest to convey communicative and informative intents, even if these also covertly serve other conscious or unconscious ulterior goals, whether unconsciously structural or consciously personal. Hence the principle of optimization grants speakers social authority about 'what they mean' and thus deflects critical interpretation which might reveal that ulteriority (III. in Table 1.). Academic discourses, such as science (derived from I in Table 1.), philosophy, critical social theory, history and literature (derived from III. in Table 1.) form special practices which socio-historically aim to construct relevance calculations so that the truth yield appears to be maximized in certain limited ways, and pay the processing and socio-economic costs of so doing. To do this it must licence some premisses which would be suppressed by authority or material interests, paying the costs to get the benefits.

Much text is not truth oriented. In many registers, for example 'the news', 'gossip' and other forms of 'phatic communion', 'advertising', 'propaganda' and other regulative discourses, different complex functions are served. Also, some texts exist purely for pleasure, and although there may be a calculative *plaisir* got from working out relevance, especially poetic effects, some forms of pleasure are outside relevance and truth. That is to say some aspects of language use are non-cognitive. But in all cognitive cases, such as gossip, credibility is required. If the new information was 'incredible', it would neither strengthen, weaken, or warrant additions to the stock of beliefs, except as it was either taken figuratively or as a symptom of derangement. Instead, the gossip or advertising would be 'seen through'. To do its work, it must be believable. The study of how relevance and truth intersect with social context is an important area for further study.

Finally, with respect to criticism (v), the view that relevance leads to truth at the ideal end of inquiry doesn't logically require this actual movement in history. The actual increase in the number and proportion of true beliefs may be random over both individuals and communities since the beginning of sign use for the reasons just given. But consider also that the number of propositions, and hence possible beliefs, is infinite. The number of contexts is also infinite. Any increase in the number of true beliefs would still leave an infinite number of

propositions unknown to finite creatures. In one sense it is meaningless to ask if there has been an *actual* increase in the amount of truth known. It would still leave an infinite number of things unknown, so there would be no reduction in ignorance. Furthermore, there seems to be no way of infallibly 'knowing' whether our representations *have* actually improved over time (*pace* Chomsky, as quoted in Magee, 1978: 186-187, and almost all scientists). The only test as to whether it is decidable is in terms of successful pragmatic outcomes in both the linguistic sense of success in interpretation and the philosophical sense of those practical empirical consequences that we take as signs of truth.

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