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## ON THE RELATION BETWEEN INTENTIONAL-WITH-A-T AND MENTAL PHENOMENA AND INTENSIONAL-WITH-AN-S, MENTALISTIC AND *ORATIO OBLIQUA* LOCUTIONS.

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### *Introduction.*

In this paper I propose to discuss the relationship between eight distinct though related concepts:  
Three types of phenomena:

1. IntenTional-spelt-with-a-t phenomena
2. Mental phenomena
3. Dispositions.

Five types of locution:

4. IntenSional-spelt-with-an-s locutions
5. Mentalistic explanations of behaviour in the sense in which such explanations are repudiated by behaviourist psychologists
6. The use of *oratio obliqua* or indirect reported speech construction as device for characterising mental phenomena
7. Dispositional statements
8. Modal contexts.

I propose to begin by presenting four brief histories:

1. Of the notion of intenTionality-spelt-with-a-t and the associated doctrine of Intentionality as the mark of the mental
2. Of intenSionality-spelt-with-an-s
3. Of Mentalism as repudiated by Behaviourists
4. Of the discussion of the *oratio obliqua* construction in this connection.

I shall then present what I call 'the Established View' of the relation between Intentional and Mental Phenomena and Intentional, Mentalistic and *oratio obliqua* locutions. Finally, I shall try to indicate how my former view of the relation between these differs from what I am calling the Established View and how and why my view of this relationship has changed in recent years. This will involve a discussion of the relation between the inten(s)(t)ional spelt both ways and the dispositional, the modal character of dispositional statements and their role in causal explanation.

### *IntenTionality.*

The adjective 'intentional' spelt-with-a-t and its nominalised form 'intenTionality-with-a-t' is a technical term introduced by the Schoolmen of the Middle Ages. It comes from the Latin verb 'intendere' from which we get the English verb 'to intend', although in the sense from which the term *intentio* is derived the meaning is 'to aim at' or 'direct towards something' in a more general sense than that of its English derivative. The Scholastic philosophers followed Aristotle in distinguishing two major divisions of the human soul for which Aristotle uses the Greek words *nous* and *orexis* which for our present purposes we can perhaps translate, following Brentano (1973), as Thought and Desire respectively.

These two divisions of the mind, though in other respects sharply contrasted, have one thing in common. They both involve an act of envisaging, aiming at or 'intending' an object, the object of thought or of desire. Moreover these objects of thought and desire turn out to be objects of a very peculiar kind. They were said by the Schoolmen to be 'inexistent' meaning by that that the objects of thought and desire do not

exist as objects in the real world, but only as objects in the mind of the thinker or desirer. Moreover even when I think about or desire a particular object that actually exists, the object of my thought and desire is not identical with the object that actually exists since there are many predicates which are true of the object that actually exists which are not true of the object of someone's thought. Thus if I think about someone who at that moment happens to be asleep in bed, it does not follow that I am thinking about someone who is asleep in bed. This, as we shall see when we come to consider intentional-with-an-s or referentially opaque locutions, is the principle whereby Leibniz's law of the indiscernibility of identicals is suspended within a description or embedded sentence which occurs as the grammatical object of a psychological verb. It underlines the very close conceptual connections that exist between these two etymologically very different homophones.

### *Brentano.*

This Mediaeval notion of the intentional inexistence of the objects of thought and desire disappeared from the technical vocabulary of philosophers with the 17th-century reaction against Scholasticism and, as Bill Kneale (1968) has suggested, was replaced by the then novel practice of using the word 'idea' to refer to a content of the human mind. It was revived along with a number of other doctrines characteristic of Aristotelian and Scholastic thought by the 19th-century German philosopher and psychologist Franz Brentano (1838-1917).

However, the account which Brentano gives of the doctrine of Intentional Inexistence in his book *Psychology from the Empirical Standpoint* (1874; 1924; 1973) differs from that of his Scholastic forebears in three respects:

- (1) He held that intentional reference to an object is the mark that distinguishes the mental from the physical (Brentano 1973, p. 88).
- (2) In the original (1874) edition of his *Psychology from the Empirical Standpoint*, Brentano endorsed the Mediaeval doctrine that intentional objects are inexistent in the sense that they exist only in the mind. However, in his later work as evidenced by the Appendix which he wrote of his *Classification of Mental Phenomena* which appeared first in 1911 and was bound with the main text of the *Psychology* in the 1924 edition edited by Oskar Kraus (Brentano 1973, pp. 271-307), it appears that he abandoned this doctrine in favour of the view that, at least in those cases where the object of thought or desire is fictional, the intentional object simply does not exist, not in the mind nor anywhere else. As Brentano himself puts it in the opening paragraph of Section IX of the Appendix to the *Classification of Mental Phenomena*:

In many cases, the things which we refer to do not exist. But we are accustomed to saying that they then have being as objects. This is a loose (*uneigentlicher*) use of the verb 'to be', which we permit with impunity for the sake of convenience, just as we allow ourselves to speak of the sun 'rising' and 'setting'. All it means is that a mentally active subject is referring to those things. (Brentano 1973, p. 291)

- (3) Since a relation cannot exist if one of the objects so related does not exist, recognition that, in fictional cases at least, intentional objects simply do not exist forced Brentano to recognise, as he does in the opening section of his Appendix to the *Classification of Mental Phenomena* (Brentano 1973, pp. 271-272) that the so-called relation of reference to an intentional object is not a genuine relation at all. It is at best what he describes as 'quasi-relational' (*relativliches*) (Brentano 1973, p. 272).

Although Brentano is not as explicit as one might wish, what I take him to mean when he denies that intentional objects exist and consequently denies that intentional reference is a genuine relation is that intentional objects are linguistic fictions which we use to characterise the orientation of a mental act or mental state - a way of indicating the direction in which the mental act or mental state is pointing.

But if this account is correct it ought to follow that intentional objects, the objects of thought and desire, are linguistic fictions which serve merely to indicate the orientation of those mental acts or mental

states, not just in the fictional cases where no actual object exists which corresponds to the object of thought or desire, but equally in those cases where reference is made to an actually existing object or state of affairs. For, as Brentano implicitly recognises in the passage quoted above, if the intentional object is being used merely to indicate the direction in which the act of reference is pointing, it is wholly irrelevant as far as the specification of that act of referring is concerned whether or not the object in question actually exists.

*Chisholm's linguistic theory of intentional inexistence.*

Unfortunately, Brentano seems either to have failed to appreciate this point, or, if he did, failed to make his recognition of it explicit. As a result he opens the door for what I take to be a gross misinterpretation of his position on this issue which has achieved considerable currency amongst philosophers in the English-speaking world in recent years through the work of Roderick Chisholm, particularly the theory of the intentional inexistence of the objects of mental acts and mental states which he (Chisholm) attributes to Brentano in his book *Perceiving* (1957) and in a number of subsequent writings.

This misinterpretation has two components. In the first place, Chisholm re-interprets the prefix 'in' in the adjective 'inexistent' so that instead of taking it, as it was intended by its Mediaeval inventors, as a preposition on the analogy of words like 'incoming' or 'inward', he takes it in the sense of a negation on the analogy of words like 'inefficient' or 'inedible'. For Chisholm, however, there is a distinction to be drawn between 'inexistent' in his sense and 'non-existent' in that whereas to say of something that it is 'non-existent' is to say simply that no such thing exists, to describe an object as 'inexistent' is to talk, not *de re* about an object as such, but to talk *de dicto* about the kind of object whose name or description can occupy a particular position or 'gap' in a sentence frame. To say that a particular position or 'gap' in a sentence frame is one which is occupied by an inexistent object according to Chisholm is to say that that position can equally well be occupied by a purely fictional name or description, one for which no bearer exists, as it can by the name of an object that has an actually existing bearer.

Now, as Linda McAlister (1976, p. ..) points out, there is no precedent whatever for this use of the term 'inexistent' in Brentano's writings. Brentano, whenever he uses the term 'inexistent', invariably uses it in its original Mediaeval sense where it meant 'existing as an object in the mind'. Moreover, as we have seen, when in his later writings he came to reject the view that intentional objects exist as contents of the mind, he saw this as an abandonment on his part of the doctrine of the inexistence of the intentional object.

However the fact that there is no precedent for this use of the term 'inexistent' in Brentano's writings would not in itself be a good reason for refusing to adopt Chisholm's interpretation of it, if it could be shown that our understanding of the issues involved is enhanced by so doing. In fact the reverse appears to be the case. For one thing in developing his new interpretation, Chisholm defines inexistence in terms which, as we have seen, make inexistence a feature, not of mental phenomena, but of the sentences we use to describe mental phenomena. For Brentano on the other hand, both intentionality (spelt-with-a-t) and inexistence as a feature of the objects of mental acts and mental states were features of mental phenomena rather than features of mental language. Consequently Chisholm's account of inexistence adds to the confusion that pervades all his writing on this subject between talking *de re* about mental phenomena and talking *de dicto* about the language we use to describe mental phenomena.

But, as Linda McAlister (1976, p. ..) also points out, when in what I want to distinguish as the second component of his reinterpretation, Chisholm uses inexistence in his special sense as the defining characteristic of Intentionality-spelt-with-a-t, and combines this with Brentano's doctrine that intentionality, so spelt, is the mark of the mental, some embarrassingly paradoxical conclusions begin to appear.

Needless to say, since Chisholm defines the inexistence of an intentional object in terms of the fictional/non-fictional character of a name or description which stands as the grammatical object of a (psychological) verb, it follows that intentionality, defined in terms of the inexistence of an intentional object in this sense, becomes a logical, or perhaps we should say, semantic feature of the grammar of sentences involving psychological verbs rather than a feature of the psychological phenomena so described. And it follows from *that*, that intentionality so defined must be understood not, as Brentano thought, as the mark which distinguishes mental from physical phenomena, but as the mark which distinguishes the language we use in talking about mental or psychological phenomena in contrast to the language we use in talking about physical phenomena.

Now whereas it is true that there is an important group of psychological verbs of which 'thinking about', 'wanting' and 'looking for' are the principal examples which invariably take grammatical objects which are 'inexistent' in Chisholm's sense, there are many others to which Chisholm's formula can only be extended by means of assumptions which bear the distinct odour of *ad hoc* special pleading.

One difficulty which confronts such a view of intentionality is that presented by the so-called propositional attitudes, verbs like 'know', 'believe', 'wish', etc. where the grammatical position is occupied, not by a name or description of some object or state of affairs which may or may not refer to something that exists, but by an indicative sentence introduced by the pronoun 'that' which is said by logicians and philosophers 'to express a proposition'. The difficulty in these cases is that it doesn't seem to make very much sense to ask of a proposition such as the proposition  $2 + 2 = 4$  or *It's going to rain tonight* whether or not that proposition exists. This difficulty is accommodated by Chisholm and those who interpret intentional inexistence as he does by equating the existence of a proposition with its truth and the non-existence of a proposition with its falsity. Unfortunately this interpretation simply throws up another difficulty. For whereas, on this interpretation, verbs like 'believe' and 'think' can take as their grammatical objects propositions which are inexistent in the sense that they can be either true or false, verbs like 'perceive' and 'know' can only take true propositions or propositions taken to be true as their grammatical objects, while verbs like 'wish' and 'dream' (if we follow Malcolm in his book *Dreaming*) can only take as their grammatical objects false propositions or propositions taken to be false. In such cases if we are to sustain both Chisholm's account of intentional inexistence and the doctrine of intentionality as the mark of the mental, we either have to deny that verbs like 'know', 'wish' and 'dream' are psychological verbs, which is extremely counter-intuitive to say the least, or we have to analyse statements like *John knows that it is going to rain tonight* in the manner first suggested by Plato in the *Theaitetus* as the conjoint assertion of the propositions:

1. *John believes that it is going to rain tonight.*
2. *It is going to rain tonight.*
3. *John has good reasons for his belief.*

Given this analysis we can say that although *John knows that it is going to rain tonight* implies the truth of the proposition believed, when analysed in this way, it separates out into three discrete propositions only one of which, *John believes it is going to rain tonight*, contains a psychological verb with an intentional grammatical object, and *that* proposition does not imply the truth of the proposition which occurs as the grammatical object of the psychological verb.

Similar arguments could no doubt be developed in the case of verbs like 'wish' and 'dream' where the proposition whose truth is wished for or dreamed has arguably to be false. But to my mind the *ad hoc* nature of such arguments reflect a bankrupt theory whose credibility is no longer worth the effort of trying to defend.

*Passages in Brentano which support Chisholm's interpretation.*

Although Chisholm's account of intentional inexistence as a feature of the grammatical objects of psychological verbs fails to carry conviction, whether as an interpretation of Brentano or as a thesis in its own right, it has to be conceded that there are passages in Brentano's writings which seem to support. This is particularly true in those passages where he seems to accept that in those cases where what is thought about or desired is an actually existing object or state of affairs the intentional object - the object of thought or desire - is identical with the object that actually exists. This would seem to imply that, in these cases at least, there *is* a genuine and substantial relation between the thinker and the object of the thinker's thought; for in this case both parties to the relation exist and exist independently of one another.

The passages which support this interpretation of Brentano's view and which may thus be said to open the door to Chisholm's interpretation of his position come from the Appendix to the *Classification of Mental Phenomena* (Brentano 1973, pp. 271-307) in which, as we have seen Brentano develops his later view, and from a letter to Anton Marty which is reproduced in a collection of Brentano's writings edited by

Oskar Kraus which appeared under the title *Wahrheit und Evidenz* in 1930, translated into English as *The True and the Evident* (Brentano 1966).

There are three passages in the Appendix to the *Classification of Mental Phenomena* where Brentano claims only that the object of thought need not exist and which therefore implies that an object of thought may actually exist as opposed to merely corresponding to or involving a reference to something that actually exists. The first is where he says (Brentano 1973, p. 272) "if someone thinks of something the one who is thinking must certainly exist, but the object of his thinking need not exist at all". The second which has already been quoted above is where he says (Brentano 1973, p.291) "in many cases the things to which we refer do not exist". The third is later in Section IX "On Genuine and Fictitious Objects" where he says

this is not to deny that in many cases the fiction that we can have something other than a real thing as an object - that non-beings, for example, may be objects just as well as beings - proves to be innocuous in logical operations. (Brentano 1973, p. 295)

It is true that Brentano's failure in these passages to discuss the status of the object of thought in those cases where the thought is of something that actually exists, as opposed to something fictional, leaves open the possibility that thinking in such cases involves an actual relation between the thinker and an actually existing object. Nevertheless these passages are, I suggest, equally open to the more plausible interpretation that in such cases, as in the cases where the object of thought is purely fictitious, the name or description which in this case happens to have a bearer, is merely being used to indicate the direction in which the thought is pointing. The crucial issue which would decide between these two interpretations of Brentano's view of the intentional object in those cases where such an object actually exists is whether in such cases it is possible to identify the object of thought with the actual object as it exists in the world.

As I have already pointed out in connection with the Mediaeval notion of inexistence whereby the objects of thought are held to exist in the mind rather than in external reality, the view which identifies the object of thought in such cases with the actual object as it exists in reality encounters the objection that it involves an infringement of Leibniz's Law of the non-identity of discernibles in so far as there are bound to be many predicates that are true of the real object that are not true of the object of thought. Brentano, moreover, was certainly aware of this, although not perhaps of its application in the present case, as is shown in a passage from his *Psychology from an Empirical Standpoint* where he says (Brentano 1973, pp. 93-4) that if we compare "a physical phenomenon outside the mind" with "those which we find intentionally in us ... we discover conflicts which clearly show that no real existence corresponds to intentional existence in this case".

On the other hand, there is a passage in a letter to Anton Marty included by Kraus in *Wahrheit und Evidenz* (Brentano 1930; 1966) which was drawn to my attention by Martha Kneale<sup>1</sup>, where Brentano appears to be saying that when someone thinks of a horse the object of thought is the actual horse and not the horse *qua* object of thought. In the English translation (Brentano 1966) the passage in question reads as follows:

It has never been my view that the *immanent object* is identical with the 'object of thought' (*vorgestelltes Objekt*). What we think about is the *object* or *thing* and not the 'object of thought.' If in our thought we contemplate a horse, our thought has as its immanent object - not a contemplated horse - but a *horse*. (Brentano 1966, p. ..)

Unfortunately, Brentano's meaning in this passage is not altogether clear. On one interpretation, he can be understood as saying that when we think about a horse that actually exists, the object of our thought is identical with the horse that exists in reality. On another interpretation, which I personally favour, all he is saying is that when we think about a horse we think about a horse and not about the thought or idea of a horse, "a contemplated horse", as he puts it. This interpretation is supported by the immediately preceding

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<sup>1</sup> Personal communication.

passage where he states:

By an *object* of a thought I meant what it is that the thought is about, whether or not there is anything outside the mind corresponding to the thought." (Brentano 1966 p. ..)

Clearly, if the statement that when we think about a horse the object of thought is the horse is intended to apply as much to the case where there is nothing "outside the mind corresponding to the thought" as to the case where there *is* something corresponding to it, Brentano cannot be saying that the horse that is thought about is identical with a horse that exists "outside the mind", since in the former case there is no such horse. But in that case there is no support in this passage for the contention that, in Brentano's opinion, where there is a real horse corresponding to the thought, the real horse and the horse *qua* object of thought are one and the same horse in the sense in which Red Rum and the only horse to have won the Grand National three times are one and the same horse.

The correct view, I suggest, is that although in such cases there is only one actually existing horse, nevertheless the real horse and the horse *qua* object of thought are distinct, the one exists, the other is only a linguistic fiction used to indicate the direction in which thought is referentially oriented. Interpreted in this way I am inclined to think that, apart from his, in my view, unnecessarily essentialist view of the mental/physical distinction, in the view of the matter which he adopted in his later writings Brentano got intentionality-with-a-t exactly right. In so far as he views the intentional object as a nonentity, a linguistic fiction which specifies the orientation of a mental attitude, his account is superior both to that of his Scholastic predecessors and to that of contemporary exponents of the doctrine like Roderick Chisholm who have adopted the optional existence account of 'inexistence' with all the problems and inconsistencies that that entails. It is the view to which, with one important exception, the doctrine that intentionality is the mark of the mental, I now subscribe.

*Intentionality within the Phenomenological and Analytic traditions.*

After Brentano, the doctrine of intentionality as the mark of the mental passed through Husserl who was a student of Brentano in Vienna into the Phenomenological Movement and, as Roger White has suggested to me, through Husserl it seems to have influenced Wittgenstein in his middle period, the period of the *Philosophical Remarks* (Wittgenstein 1930) and the *Blue and Brown Books* (Wittgenstein 1958).

The doctrine surfaced as an issue within the analytic tradition of philosophy in the mid 1950s. The names that spring to mind in this connection are Wilfrid Sellars (1958) and Roderick Chisholm (1957; 1958) in the United States who, at least in Chisholm's case, became interested in intentionality through reading Brentano, and a group of philosophers who were either, like Elizabeth Anscombe (1958), actual students of Wittgenstein or, like Antony Kenny (1963), standing within the tradition of philosophical thinking which stems directly from Wittgenstein.

However, in the form it is taken up in the late 1950s, both by Sellars and Chisholm and by the Wittgensteinians, intentionality has undergone a sea change. It is no longer as it was for the Scholastics and for Brentano - a feature of mental phenomena, of mental acts and mental states. It has become, what it already is in Wittgenstein's discussion, a grammatical feature of the language we use to talk about mental phenomena. The intentional object ceases to be the object towards which the mental act or mental state is orientated and becomes the grammatical object of a psychological verb, which in turn makes the distinction between the mental and the physical when construed in terms of intentionality into a difference of language rather than of substance. It also has the consequence that intentionality-with-a-t becomes inextricably confused, if not identical with the other kind of intentionality-spelt-with-an-s which, from the very beginning, has been viewed as a logico-grammatical feature of certain lexical items. Consequently, it is to the separate history of this kind of intentionality that we must now turn.

*Intentionality-with-an-s.*

According to Bill and Martha Kneale in their book *The Development of Logic* (Kneale and Kneale 1962), the history of the notion of intentionality-spelt-with-an-s begins with a distinction drawn by the 17th-century logicians of the Port Royal School between the 'comprehension' and the 'extension' of a general term or concept where the comprehension of a term is the set of criteria that have to be satisfied before an individual

can be subsumed under a general term, concept or description and its extension is the class of actually existing individuals thereby subsumed under it.

This distinction between the comprehension and extension of a term was taken over in the mid 19th-century by Sir William Hamilton, the Scottish logician, who substituted the term 'intension' for the 'comprehension' of the Port Royal logicians. From this we get the distinction between an *extensional logic* and an *intensional logic*, where an extensional logic is one in which the intension of a predicative expression is *used* to classify members of a universe of discourse into those to which the predicate applies and those to which it does not apply, but in which the *designation of or reference to* the intension of a term is not permitted. By the same token an intensional logic is one which *does* permit the designation of the sense or intension of a description or of the proposition expressed by an indicative sentence.

As is well known, first order predicate calculus as developed by Frege and Russell is a purely extensional logic in this sense which does not permit, as all natural languages do, the designation as distinct from the use or expression of things like intensions and propositions. The reason for this is partly that both Frege and Russell were concerned to establish the link between logic and mathematics and standard mathematics has no place for the designation of intension, but, perhaps more important, because as soon as designations of intensions are admitted, paradoxes are generated, unless what is known as Leibniz's Law, the converse of his principle of the Identity of Indiscernibles (whereby whatever is true of something under one description is true of it under any description that applies to it) is suspended within the so-called intensional context constituted by the description or sentence which is used to designate the intension or proposition in question.

Two examples must suffice to illustrate this point, one involving an intensional context which consists of a description, the other involving a proposition. The first is the case of someone who wants to smoke marijuana. Now smoking marijuana is a criminal offence. Hence if Leibniz's Law held, it would follow that anyone who wants to smoke marijuana wants to commit a criminal offence. But this doesn't follow. Leibniz's Law does not hold within the description 'to smoke marijuana' when it occurs as the grammatical object of the verb 'to want'. A description of what someone wants is invariably an intensional context. Similarly in the case of the example given by the Kneales (1962, p. 604). Given that the Pope knows that the number of the Apostles is twelve and given also that twelve is the sum of the third and fourth prime numbers, it ought to follow by Leibniz's Law that the Pope knows that the number of the Apostles is equal to the sum of the third and fourth prime numbers. Maybe he does, but it still doesn't follow. Leibniz's Law is suspended. The proposition which is expressed by the sentence which occurs as the grammatical object of the verb 'to know' is an intensional context.

It is in this sense that to describe an expression as intensional is to say the same thing about it, that Frege (1892) would have expressed by describing it as "referring indirectly", that Peter Geach (1962, p. 165) expresses by describing it as "a non-Shakespearean predicate", i.e. a predicate that does not obey the principle of the quotation from Shakespeare's *Romeo and Juliet* "A rose by any other name would smell as sweet", that Quine (1953) describes as "opaque" as opposed to "transparent" and which is described as "intensional-with-a-s" when that adjective is applied to linguistic expressions rather than to phenomena characterised by those expressions.

The suggestion that a clear distinction ought to be drawn between these two forms of intentionality, intentionality-spelt-with-a-t being reserved for that feature of actual mental phenomena whereby they are orientated towards an object, while intensionality-spelt-with-an-s is reserved for linguistic expressions in which this characteristic suspension of Leibniz's Law occurs, was first made in two linked symposia, the first between Bill Kneale and Arthur Prior and the second between Jonathan Cohen and J.O. Urmson, which were presented at the Joint Session of the Aristotelian Society and Mind Association at Liverpool in 1968 and published in the PAS Supplementary Volume for that year. Moreover, until the distinction was taken up by John Searle (1979) in a paper in *Mind*, little attention seems to have been paid to the distinction outside Oxford, where all the participants of the 1968 symposia were then based. Other philosophers have continued to spell intentionality with a T even when it is quite clear that what they are writing about is a form of linguistic expression rather than a feature of mental phenomena.

The fact that the same spelling of the same homophone can be used to describe both a feature of a class of phenomena and a feature of certain linguistic expressions, however regrettable the confusion

between two such radically different kinds of things may be, strongly suggests that there must nevertheless be a very close connection between the two. It is generally accepted that all intentional-with-a-t phenomena can be and normally are described in ordinary language by means of intentional-with-an-s locutions. On the other hand, it is equally universally accepted that there is at least one kind of intentional-with-an-s or referentially opaque context which does not or need not describe an intentional-with-a-t phenomenon. This is the well-known case of sentences which are within the scope of the modal operators 'possibly' and 'necessarily'.

Where there is a difference of opinion is over the question whether it is or is not possible to characterise an intentional-with-a-t phenomenon without employing an intentional-with-an-s locution. The view that this is not possible must, I suggest, be attributed to those philosophers who, like Chisholm, persist in using intentionality-spelt-with-a-t both as a feature of linguistic expressions and for a feature of the phenomena those expressions describe. It is also the view to which John Searle (1979; 1983) who *does* draw the s-and-t distinction is explicitly committed. On the other hand, those like Carnap (1934) and Quine (1960) who believe both in the possibility and the desirability of extensionalizing the intentional-with-an-s, rendering transparent the referentially opaque, must be credited with the view that intentional-with-a-t phenomena can be described without using intentional-with-an-s locutions. This, as we shall see, is an issue on which I have recently changed sides in the direction of the position adopted by Searle, though for very different reasons.

### *Mentalism.*

My third historical sketch and the fourth of the five elements in my juggling act concerns the notion of mentalism, as that term is used by behaviourist psychologists to characterise the kind of description and explanation of the behaviour of living organisms to which they are in principle opposed. What I take it that most behaviourists have primarily in mind when they condemn the use of mentalistic explanations for the purposes of scientific psychology is the kind of explanation we give in everyday life of the behaviour of ourselves and our fellow human beings when we explain what someone does in terms of what they know, believe or think about the situation confronting them and what possible future developments of that situation they want to bring about or are anxious to avoid.

In order to understand the behaviourist objection to mentalistic explanations in this sense, we need to cast our minds back to the aftermath of the publication of Darwin's *Origin of Species* (1859) when biologists like G. J. Romanes (1882) set about collecting anecdotal evidence on the behaviour of animals of a wide variety of different species in the hope of being able to chart the evolution of human intelligence by assessing the performance of species at different points on the so-called phylogenetic scale from primitive unicellular micro-organisms up to man. This early work was rejected by the later experimental animal or comparative psychologists who replaced them, partly on the grounds that the evidence was anecdotal and therefore unreliable, but also because of what they saw as the highly speculative and anthropomorphic character of the explanations proposed. The behaviourist confronted with the problem of explaining the behaviour of animals has, as Dan Dennett (1978) puts it in his essay on Skinner, "a strong gut intuition that the *traditional* way of talking about and explaining human behaviour - in 'mentalistic' terms of a person's beliefs, desires, ideas, hopes, fears, feelings, emotions - is somehow utterly disqualified" (p. 54).

Although the original objection to the use of mentalistic explanations by the behaviourists was to their use in describing and explaining the behaviour of animals and very young children, the ban was later extended to the behaviour of older children and human adults, on the grounds that, as Darwin has shown, human beings are just another species of living organism. Consequently, if mentalistic explanations are unacceptable as far as animal behaviour is concerned, they must be equally unacceptable as far as human behaviour is concerned.

However, this extension of the ban on mentalistic explanations to include adult human behaviour is difficult to justify. When you ask what is wrong with explaining the behaviour of organisms in mentalistic terms, you are told, as Clark Hull (1943, p. 27) puts it, that to do so is to be guilty of what he calls "anthropomorphic subjectivism". Anthropomorphism may be a good reason for rejecting the use of mentalistic explanations in the case of animal behaviour, but it can hardly be put forward as a good reason for rejecting such explanations in the case of adult human behaviour. Moreover, while it is easy to accept



the subjective nature of introspective observation as a reason for rejecting introspection as our only source of access to psychological data, or, indeed, unless it is corroborated by more objective methods, as a reliable source of evidence for or against any kind of theory in psychology, it is difficult to see why the subjective nature of our source of information about them should be a reason for refusing to incorporate assumptions about an individual's mental states in framing hypotheses to explain his or her behaviour. After all, in physics we are used to postulating theoretical entities for whose existence we not only do not, but never could, have any kind of direct observational evidence. However subjective and suspect it may be, we do at least have some sort of direct observational evidence for the existence and nature of mental states in our own case, so it is hardly a great leap of faith to postulate similar states in the case of others, provided the hypothesis is confirmed, as arguably it is, by the objective behavioural evidence.

Faced with this confusion on the part of the psychologists as to precisely what it is about mentalistic explanations that they are objecting to, sympathetic philosophers, and I am thinking here particularly of Carnap (1932) and Quine (1960), have been inclining to see in the behaviourists' rejection of mentalism a reflection of their own dislike of intentionality-with-an-s or referential opacity as a feature of certain locutions in ordinary language. This, I am suggesting, is part of the motivation behind both Carnap's espousal of Logical Behaviourism in 'Psychology in Physical Language' (1932/33) and of that part of that curiously one-sided intellectual friendship between Quine and Skinner, which cannot be accounted for by the fact that they happen to be approximate contemporaries who have spent virtually the whole of their working lives the same University in Cambridge, Massachusetts.

However, neither Carnap nor Quine, to my knowledge, have drawn a specific connection in their published writings between intentionality-with-an-s or referential opacity and mentalistic explanations as stigmatised by the behaviourists. The two notions are brought together, however, in the contribution made by Wilfred Sellars to a debate by correspondence between himself and Roderick Chisholm on the subject of Intentionality, here spelt-with-a-t, which appeared as an Appendix to the second Volume of the Minnesota Studies in the Philosophy of Science in 1958. A much more explicit identification of the mentalistic and the intentional, here also written with-a-t though quite clearly used to mean a feature of linguistic expressions, is in Dan Dennett's (1978) essay 'Skinner Skinned' which forms Chapter 4 of *Brainstorms*. In that essay Dennett (pp. 60-61) explicitly identifies what is right about Skinner's "gut intuition" that mentalistic language is "utterly disqualified" from a scientific standpoint, with Quine's objections to the use of what Quine himself would call referentially opaque idioms for scientific purposes but which Dennett calls intentional (spelt-with-a-t) idioms. Another explicit identification of mentalism, as objected to by the behaviourist psychologists, and intentionality-spelt-with-a-t, but nevertheless construed as a "logico-grammatical feature of our ordinary psychological language" occurs in a paper of my own entitled 'Psychological Paradigms and Behaviour Modification' which was originally delivered at the Annual Conference of the European Association of Behaviour Therapy held at London Heathrow Airport in 1974 and subsequently published in the Dutch psychological journal *De Psycholoog* (Place 1978). Later, in my paper 'Skinner's *Verbal Behaviour* - I - why we need it' (Place 1981), I incorporated the distinction between intentionality-spelt-with-a-t as a property of mental phenomena and intentionality-with-an-s as a property of linguistic expressions, identified 'mentalism' in the sense of the behaviourists' repudiation of it with intentionality-with-an-s language and argued with Carnap (1934) for the possibility and desirability of an extensional theory to describe and explain intentional-with-a-t phenomena.

#### *Oratio Obliqua.*

The fourth and final item in my series of historical vignettes concerns the *oratio obliqua* or indirect reported speech construction. Depending on your point of view, this topic has both the longest and the shortest history of the four whose history I have been summarising here. In the form of the doctrine that the object of belief and knowledge is a proposition which is expressed by an indicative sentence which occurs as the grammatical object of verbs like 'know', 'believe' and 'think', we can say that the importance of the *oratio obliqua* construction has been recognised by philosophers ever since Plato's *Theaetetus*.

This long tradition is represented in contemporary philosophical parlance by the notion of "a propositional attitude" first introduced somewhat tentatively by Russell (1918-1919)<sup>2</sup> What has a much shorter history is the recognition that the grammatical object of verbs like 'know' and 'believe' where they are used to describe a propositional attitude is an embedded indicative sentence in *oratio obliqua* or indirect reported speech, which is exactly parallel to and presumably derived by analogy from more explicit uses of the same construction to report what Peter Geach (1957) calls "the gist or upshot" of something that someone has actually said on a particular occasion, rather than his or her exact words.

As far as my researches go, the earliest discussion which, at least implicitly, recognises that propositional attitude expressions involve the *oratio obliqua* construction, occurs in Carnap's *Logical Syntax of Language* of 1934, where he introduces the device of substituting a direct quotation in inverted commas of the corresponding *oratio recta* sentence for the embedded *oratio obliqua* sentence as a device for extensionalizing<sup>3</sup> what is otherwise an intensional-with-an-s context. Thus instead of saying "Brown thinks that it will rain tomorrow" where the embedded sentence 'it will rain tomorrow' is intensional, Carnap recommends that we should say, "Brown says to himself with a feeling of conviction 'It will rain tomorrow'".

However, as far as I know, the first *explicit* recognition that we are dealing with a use of the *oratio obliqua* construction, and certainly the source from which my own awareness of this element in the puzzle derives, is Peter Geach's book *Mental Acts* (1957 pp. 75ff).

The subsequent history of the *oratio obliqua* construction in this connection belongs to my own intellectual history. Others may, for all I know, have written on the subject, but if they have, I have not read their work, and any influence it has had on my thoughts on this matter must be extremely indirect. As I see it, I have extended the account which Peter gives of the use of the *oratio obliqua* as a device for characterising mental phenomena in three respects.

(1) In the first place I have taken the use of the indirect reported speech construction here as intended rather more literally and less analogically and metaphorically than Peter does in Chapter 17 of *Mental Acts* under the rubric *Analogy Theories of Psychological Concepts*. In other words, what I am suggesting is that when we explain someone's behaviour in terms of the belief that it is going to rain tomorrow, although we are not committed to saying that he or she actually said something to that effect to himself or herself or heard or read a statement to that effect by someone else and assented to it, nevertheless in using the belief in order to explain an agent's behaviour, we are relying on our intuitions as native speakers of the language as to the kind of behaviour to be expected of someone who has formulated such a sentence for himself or herself, or has assented to it when asserted, whether audibly or in writing by someone else.

In other words, what I am claiming is that when we use this *oratio obliqua* construction for purposes of explaining an agent's behaviour, we are, for purposes of explanation, relying on, even though we would not ordinarily be taken to be committed to, the assumption of what I have called "a consistent, rational and causal connection" between what the agent is inclined to say both to others and more importantly to his or herself on the one hand and what he or she otherwise does on the other, and that it is this feature which makes the use of mentalistic explanations of behaviour unacceptable for scientific purposes in the only cases where such explanations are in my opinion unacceptable, namely in those cases where the assumption of a consistent, rational and causal connection between what the agent says and what he or she otherwise does fails to apply.

I first published an account of this interpretation of the use of the *oratio obliqua* construction in characterising psychological states in my 'Psychological Paradigms and Behaviour Modification' paper (Place 1978) and it provided the basis for my paper arguing for a rehabilitation of Skinner's Verbal Behaviour (Place 1981).

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<sup>2</sup> I am indebted to David Holdcroft for this information.

<sup>3</sup> As Dr. Harry Lewis pointed out in the discussion following the presentation of an earlier version of this paper to the Department of Philosophy, Senior Seminar, University of Leeds, this device fails as a device for extensionalising an intensional context, since we cannot validly substitute an alternative description within the *oratio recta* sentence any more than we can when it is in the *oratio obliqua*. All the 'oratio recta' does is to remove the temptation to do so by isolating the sentence within inverted commas, thus making clear that the sentence is being named rather than used.

(2) The second respect in which I have been gradually extending Peter Geach's account of the use of the *oratio obliqua* in characterising psychological states is by recognising that the use of this construction for this purpose is not confined to embedded indicative sentences usually introduced by the pronoun *that*, but includes also embedded interrogative sentences introduced by a variety of interrogative pronouns of which the *how* of Gilbert Ryle's (1949) "knowing how" case is only one, as well as embedded imperative sentences introduced by the preposition *to*, as in the sentence *the doctor told him to get undressed*. At this point I would like to draw your attention to Table 1 [see Appendix 1 at the end of the paper] which is an attempt to classify English verbs, verbs of utterance as well as the more specifically psychological verbs, according to the kinds of *oratio obliqua* construction that can occur as the grammatical object of the verb in question. I have also, as you will see, underlined those verbs which can, in most cases, with the addition of an appropriate preposition, take a descriptive noun phrase as their grammatical object.

(3) More recently still, I have come to recognise what I now take to be the correct explanation both for the use of *oratio obliqua* rather than *oratio recta* for this purpose and for introducing the concept of a proposition or thought which is not tied to any particular sentence which is said to express that thought or proposition. This explanation in terms of the phenomenon emphasised especially by Chomsky (1957, etc.) when he points out that sentences are seldom repeated word for word and are constructed *de novo* on each occasion of utterance. Consequently where we are dealing with a psychological state such as a propositional attitude which may persist for a lifetime, we are dealing with a verbal and behavioural orientation which is liable to be instantiated in the form of a wide variety of different sentence utterances having only the same "gist or upshot" in common, in other words with the same truth or satisfaction conditions, and with the individuals referred to identified in the same or in some corresponding way.

#### *The Established View (EV).*

Having presented a potted history of four out of the five concepts announced in my title, all of which histories form in one way or another subdivisions of the history of the fifth concept (the mental), I now want to proceed to a presentation of what I am calling the Established View of the relationship between them. I have set out what I am calling the Established View on Table 2 [see Appendix 2 at the end of the paper], indicating in the column marked EV its relationship to the thirteen propositions set out in the lefthand column. Subsequent columns marked UTP 1 and UTP 2 indicate my earlier view, which I held from about 1978 until January 1983 (UTP 1) and my present view (UTP 2). As you will see, what I am calling the established view accepts all the propositions listed on the left except for proposition 5(a) where it is, I take it, universally accepted that sentences under the control of the modal operators *Possibly* and *Necessarily* are examples of intentional-with-an-s contexts which do not or need not describe mental phenomena. In the column on the right, I have listed without brackets exceptions to the rule stated in the corresponding proposition in the lefthand column, which I now accept as such and which consequently lead me to reject the proposition stated on the left. The exceptions in brackets are either ones which I formerly accepted, but now no longer accept or ones which have been suggested by others, but which I do not accept as genuine exceptions. The changes that have occurred in my view over time, assuming what is not in fact the case that there was a time when I accepted the Established View in all respects as correct, are numbered (1) to (5), indicating the order in which these various changes of view took place and are marked on the diagram on the line between the columns at the point where a change occurs as between EV and UTP 1, or between UTP 1 and UTP 2. [...]

I should emphasise that what I am calling the Established View doesn't represent the view of any one philosopher. The philosopher whose view comes closest to it, and who I see as the most influential writer in its establishment as a generally accepted view, is Roderick Chisholm, particularly the account Chisholm gives of Intentional (spelt-with-a-t) inexistence in Chapter Eleven of his book *Perceiving* (Chisholm 1957). In that chapter Chisholm begins by committing himself to his version of Brentano's doctrine according to which intentional inexistence is the mark of all mental phenomena. This I take it commits Chisholm to my propositions

"1. All mental phenomena are intentional-with-a-t"

and

"2. All intentional-with-a-t phenomena are mental".

He then goes on to mention three marks of intentionality namely:

- (1) the orientation of psychological attitudes towards an object which is nonexistent in the sense that it need never actually exist;
- (2) a sentence containing an embedded propositional clause; and
- (3) the suspension of Leibniz's Law within such a clause.

Since he presumably holds that all three marks are simultaneously present in all cases of intentionality and since the second and third marks are features of language, whereas his first mark is a feature of extra-linguistic phenomena, we must suppose that if he were to draw the distinction between intentional-with-a-t phenomena and intentional-with-an-s locutions, he would be committed to my proposition

"3. All intentional-with-a-t phenomena require (i.e. can only be characterised by means of) intentional-with-an-s descriptions",

to my proposition

"4. All mental phenomena require to be characterised by means of intentional-with-an-s locutions"

and to

"5. (b) All non-modal intentional locutions describe mental phenomena".

Moreover, if his second mark is supposed to apply generally, in other words, if, as I assume he is, he is committed to the view that sentences like *I want an apple* or *I see an apple* are to be construed as *I want it to be true that I have an apple* and *I see that the object with which I am visually confronted is an apple* or something of the kind, and that this goes for all our ordinary psychological sentences, then it follows that he is committed both to my proposition

"7. All embedded *oratio obliqua* sentences are intentional-with-an-s",

which I take to be uncontroversial and more controversially to my proposition

"8. All intentional-with-an-s locutions can be and are best expressed by means of an embedded *oratio obliqua* statement".

Chisholm is not, by and large, interested either in science in general or in the problems of constructing a scientific psychology in particular. Consequently, he takes no stand on the issue of the scientific status of mentalism, as discussed by the behaviourists; though he can obviously see no good reason why anyone should want to repudiate such explanations, whatever his purposes might be. However, taking our cue from other writers like Carnap (1932), Quine (1960), Sellars (1958) and Dennett (1978), who *do* interest themselves in this problem, we can, I suggest, represent the Established View as holding my propositions:

"5. All intentional-with-an-s locutions describing mental phenomena are mentalistic."

"6. All mentalistic locutions are intentional-with-an-s."

"9. All embedded *oratio obliqua* sentences are mentalistic."

"10. (a) All mentalistic locutions can be and are best expressed by an embedded *oratio obliqua* sentence."

"10. (b) All mentalistic locutions are embedded *oratio obliqua* sentences."

*The first deviation from the Established view (EV) - the objects of attention are non-intentional.*

So much for what I take the Established view to be. My next task is to explain the various respects in which my own earlier view UTP 1 differed from the Established View (EV) and how my view has recently changed from UTP 1 to UTP 2.

At the bottom of Table 2 I have listed the various deviations from the Established View and from my own previous view in the order of their occurrence. Deviation (1) represents a longstanding interest of mine in verbs of attention like 'look at', 'watch', 'listen to', 'savour' and 'pay attention to' itself, with which my paper 'The concept of heed' (Place 1954) was concerned. It also reflects a longstanding belief that both intentionality-spelt-with-a-t and intentionality-spelt-with-an-s involve using the intension of a sentence or description as a device for characterising what one might call the scope of a mental disposition. On this view, it ought to follow that intentionality-with-a-t would not be involved in the case of those mental activities such as paying attention to an as yet unidentified stimulus, which does not imply the possession of any particular mental disposition on the part of the attention payer's activity in question. It ought also to follow that the grammatical objects of verbs referring to such activities should be extensional or transparent, as seems to be born out if we compare the grammatical objects of verbs like 'watching', 'looking at' and 'listening to' with those of verbs like 'seeing' and 'hearing'.

*The second deviation from the Established view (EV) - wanting is not a propositional attitude.*

Deviation (2), the second deviation from the Established View involves the rejection of the widely held view (e.g., Prior, Davidson, etc.) that to say of someone that they want something, say an apple, is to say of them that they want a proposition, the proposition that they have an apple to be true. There are four sets of considerations which, to my mind, show beyond doubt that this analysis of wanting is incorrect:

- (1) Propositions, properly understood, are timelessly and tenselessly true. The sentence *Julius Caesar will be murdered in the senate on the Ides of March* uttered as a prediction prior to the event, the sentence *Julius Caesar is being murdered in the senate at this very moment* uttered at the time and the sentence *Julius Caesar was murdered in the senate on the Ides of March, 44BC* all express the same proposition which was just as true before the event as it was at the time and has been ever since. To say that someone wants some state of affairs to come about entails that that state of affairs has not yet come about. But if *wanting something* were a propositional attitude in which what is wanted is that a certain proposition be true, this would imply that the proposition in question, a proposition to the effect that the state of affairs will come about in the future, is currently neither true nor false, and that its truth value will not be decided until either the predicted state of affairs has come about or the opportunity for it to do so has disappeared into the past. Clearly this consequence of the propositional attitude theory of *wanting something* is at odds with the view of the nature of propositions I have outlined.
- (2) In the case of genuine propositional attitude expressions, such as those formed from sentence frames like *A knows that p*, *A believes that p*, *A wishes that p*, *A wonders whether p*, *A dreamed that p*, any indicative sentence which expresses a proposition can be meaningfully substituted for *p*. Whereas, if we translate *A wants O to come about* as *A wants that p be true* we find that only indicative sentences in the future tense can be substituted for *p* in the latter sentence, since only the description of a future state of affairs can be meaningfully substituted for *O* in the original sentence.
- (3) In practical reasoning and in belief-desire type explanations of behaviour, the motivational premise which specifies the agent's objective(s) in relation to the situation with which he or she is confronted has a quite different function from that of the premises which specify the agent's propositional attitudes (beliefs). In this kind of reasoning the function of propositional attitude premises is to generate a prediction as to the probable consequences of doing one thing rather than another in the situation confronting the agent. This prediction, moreover, is generated by the propositions which are believed to be true rather than by the attitude that is allegedly adopted towards them, and in most cases it is vitally important that those propositions be true, if practical reasoning is to be

successful. The agent's attitude to those propositions is, of course, important; but only in so far as it determines

- (a) which propositions will and will not occur as premises of the argument which has the prediction of the consequences of action as its conclusion, and
- (b) the strength of the agent's conviction that events will turn out as predicted.

The motivational premise by contrast has the function of determining

- (a) which predicted consequences are liable to influence what the agent decides to do,
- (b) the direction of that influence, i.e., whether the prediction that an action will have certain consequences will incline the agent to decide in favour or against performing the action in question, and
- (c) the strength of the agent's determination or reluctance to perform the action in question, given a particular level of confidence on the agent's part in the predictions of outcome, and given the same set of additional incentives and competing motives as are currently operating.

It performs these functions not, as a propositional attitude does, by contributing a premise to the argument by which the consequences of an action are predicted, but by determining which prediction(s) will influence what the agent does, in what direction and with what degree of urgency. Moreover, in making that contribution, what is important is not the eventual truth of the proposition which describes the realisation of the objective, but the character of the state of affairs in which it is taken to consist.

- (4) There is a perfectly good use for the locution *wanting it to be true that p* which is quite distinct from that of the locution *wanting O to come about*. *Wanting it to be true that p* describes the situation of the quiz contestant, the examinee or the scientist whose success or failure in their respective enterprises depends on whether or not a particular statement to which the individual has committed him or herself is accepted for the purposes of that enterprise as true or as false. In other words, *wanting O to come about* describes the general motivational attitude of which *wanting it to be true that p* is a special case.

#### *The third deviation from the Established view (EV) - extensionalizing the intensional*

In deviation (3), my third deviation from the Established View from which I have subsequently recanted in deviation (4), I was simply following an equally well-established variant of the Established View held, as we have seen, by people like Carnap (1934) and Quine (1960) who are inclined to hold that it is always possible to extensionalize intensional-with-an-s locutions. The only difference between my UTP 1 view and that of Carnap and Quine was that I rejected both Carnap's attempt to extensionalize the intensional locutions by substituting *oratio recta* for *obliqua* and the move favoured by Quine (1960), Armstrong (1968), Davidson (1970) and Searle (1983; 1984) which is to replace the offending intensional-with-an-s characterisation of a propositional attitude or other intensional-with-a-t state with what is assumed to be a purely extensional and categorical description of the underlying state of the microstructure of the entity concerned, in which the intensional-with-a-t state is held to consist. I rejected Carnap's move, because it can only be applied in cases where intensionality consists in or can be interpreted as involving the use of the *oratio obliqua* construction to characterise a propositional attitude. As we have seen in the previous section, not all cases of intensionality can be construed in this way. I rejected the molecular reduction move for reasons which were less well thought out, but which had to do with the issue between myself and David Armstrong over his 1968 proposal to extend the mind-brain identity theory from the case of ongoing private experiences to which I had proposed to restrict it in my paper 'Is consciousness a brain process?' (Place 1956) so as to cover mental states as well.

The procedure for extensionalizing intensional-with-an-s locutions to which I was attracted and to which I committed myself in the first of my series of papers on Skinner's book *Verbal Behavior* was the device used by Skinner (1953, etc.) when he accounts for goal directedness as a feature of learned behaviour in terms of the effect on present response tendencies of the consequences which different responses have had in the past.

As I now see the matter, this Skinnerian formula is perfectly valid as a form of *explanation* for the goal-directedness of learned behaviour in the case of animals, young children and of human adults, in so far

as the behaviour in question is not verbally pre-planned; but what it does not provide us with, and cannot be expected to provide, as I now recognise, is an extensional *description* of the response tendencies which are established in this way by the operation of the Law of Effect. It allows us to explain goal-directedness without using intentional locutions which imply that the organism "foresees" the consequences of its goal-directed actions. What it does not do is eliminate the intentionality involved in describing the behaviour as "goal-directed" in the first place.

Prior to January 1983, however, this point had not occurred to me. I was dissatisfied with Skinner's (1945) attempt to do for that other great intentional-with-a-t phenomenon - reference to an nonexistent intentional object as a feature of language and other systems of signs and symbols - what he had done for goal-directedness. In that paper, Skinner tries to account for the reference of a linguistic expression in terms of the stimulus control exercised by the referent (considered as an actual object, event or state of affairs in the organism's environment) over the speaker's utterance. It seemed clear to me that no account of reference and meaning which ignores the response of the listener could hope to succeed<sup>4</sup>; but I thought I could succeed where Skinner had obviously failed by adopting a version of the "picture theory" of the meaning of sentences (Wittgenstein 1921) which I call (Place 1983) "Behavioural Contingency Semantics." On this theory a sentence acquires the properties of what Skinner (1938) calls a "discriminative stimulus" (roughly, those of acting as a sign of some impending event) by virtue of an isomorphism between the content and structure of the sentence and the structure and content of the event or state of affairs that is thereby depicted. I fondly imagined that this theory to which I still subscribe would enable me to extensionalize the language of meaning and reference, just as, so I then thought, Skinner had extensionalized the language of goal-directedness.

*The fourth deviation from the Established view (EV) - the semantic "relation" is intrinsically intentional*

This delusion was shattered when Richard Garrett, now of the Philosophy Department of Bentley College, Massachusetts, who I met when I visited the Boston area in January 1983, pointed out that I couldn't say that the contingencies which, on my theory, sentences map onto are the contingencies that actually obtain in the organism's environment, because, if for any reason a statement is false, no such contingency as that which the sentence maps onto actually exists. Evidently contingencies in the sense in which sentences map onto them are intentional-with-a-t objects and the descriptions which describe them are intentional-with-an-s. This shattering discovery was what eventually led me to change of view number (4), the conclusion that the whole attempt to extensionalize the intentional-with-an-s is a mistake, that there is just no alternative to the use of intentional-with-an-s locutions in order to describe the intentional-with-a-t.

*The fifth deviation from the Established view (EV) - intentionality is the mark of the dispositional*

However, I doubt if Richard Garrett's argument would have been sufficient to bring me round to that conclusion, had it not been for another discussion I had with my old friend and sparring partner Dr. Charlie Martin after my return to the United Kingdom in April of the same year (1983). On that occasion Charlie was talking about a paper he had written jointly with Karl Pfeifer under the title 'Intentionality and the non-psychological' (Martin and Pfeifer 1987) in which they argue for what for me was then the revolutionary view that, contrary to the view endorsed by every writer on the subject since the time of Brentano according to which intentionality-spelt-with-a-t is the exclusive mark of the mental, physical dispositions and their descriptions bear all the marks of intentionality listed by such writers as Roderick Chisholm (1957) and Bill Lycan (1969). I was subsequently informed by David Armstrong<sup>5</sup> that this thesis had been argued for earlier in an unpublished paper entitled 'Intentionality and materialism' which was presented to the Department of Philosophy, University of Sydney, c.1969. Burnheim's paper, a copy of which has been made available to

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<sup>4</sup> I must concede that Richard Garrett (1984) has made a very good fist of presenting a Skinnerian version of the causal theory of reference in the sense of Frege's (1892) "*Bedeutung*." This, however, does not help us in dealing with the problem of accounting for what Frege calls "*Sinn*" or "sense", as it is usually translated, which determines the *Bedeutung*, and which Brentano refers to as "intentional reference to an object".

<sup>5</sup> Personal communication.

me with the author's permission by David Armstrong, differs from the Martin and Pfeifer paper in that the list of marks of intensionality is much shorter and comes from a different source, Elizabeth Anscombe's (1965) paper 'The intentionality of sensations.' It is, nevertheless, a feature of both papers that their authors are so beguiled by the doctrine that intentionality is the exclusive mark of the mental that they refuse to draw what to me is the obvious conclusion to be drawn from the evidence they adduce, namely, that intentionality is not, as Brentano thought, the mark of the mental, but the mark of the dispositional. Instead they prefer to believe that it is the philosophers whose lists of the marks of intentionality they quote who have got it wrong, and that intentionality consists in some other feature which really *does* mark off the mental from the physical.

In my perplexity over the awful discovery that my behavioural contingencies were intentional objects, the idea that intentionality is the mark, not of the mental, but of the dispositional came as manna from heaven. For if you can't characterise *any* dispositional property without implicitly mentioning an intentional object towards which it is orientated, the fact that you can't develop a semantic theory in behavioural terms without introducing an intentional object for a sentence to map onto, can be no disgrace for the most hardline behaviourist or physicalist.

Further discussion of this problem with Jack Smart, when he visited us in North Yorkshire later in the same year, convinced me that, not only are dispositional properties intentional-with-a-t, dispositional predicates are also intensional-with-an-s. I stated the argument which convinced me of this in an unpublished paper which I was preparing at the time. It runs as follows:

Given that the brittleness of a pane of glass consists in its orientation towards an intentional object, an event - its breaking, which has not yet occurred and may conceivably never do so, it turns out that the description of it as orientated towards the possibility of its future breaking is 'intensional-with-an-s' or 'referentially opaque'. For supposing it turns out that the event of this particular pane's breaking actually takes place on August 27th 1996, to describe its current brittleness after the event as the propensity for the event which actually happened on August 27th 1996 to occur is not just an odd thing to say, it is actually false, since the brittleness consisted in the propensity to break *at any time*, not just on the date when it actually did so. The principle of the substitutability of descriptions *salve veritate* or Leibniz's Law does not hold within this intensional-with-an-s context.

It would be a mistake, however, to leave you with the impression that it was only its utility in helping to rescue behavioural contingency semantics from an embarrassing predicament which attracted me to the doctrine that intentionality is the mark of the dispositional rather than the mental. Armed with this new perspective, all the different pieces which make this whole perplexing topic of intentionality-spelt-both-with-a-t-and-with-an-s begin for the first time to fall into place. Specifically there are six aspects of the problem which, as I see it, are illuminated by the light which the doctrine provides:

- (1) The doctrine that intentionality is the mark of the dispositional makes excellent sense of the view that the intentional object is a linguistic fiction which, as we have seen, emerges from a study of Brentano's later writings on the topic. The suggestion is that intentionality-spelt-with-a-t consists in a dispositional property which is ascribed to an object which may be animate or inanimate and whose scope is characterised by means of an intensional-with-an-s locution which occurs as the grammatical object of a dispositional verb. Instead of using a description or complete sentence as a way of referring to some feature of the world, some object, event or state of affairs, as when we say *that apple* (pointing at it) or *those apples taste nice* (pointing at them), we use the intension or sense of the expression in a non-referential way as a device for indicating the kind of event which is liable to occur as a consequence of the existence of a disposition on the part of some object or person to whom reference *is* made within the same sentence.

Thus, in the sentence *I would like an apple*, the expression *an apple* is being used, not as a means of referring to a particular apple, but as a device for indicating the kind of object whose production by the listener the speaker has a disposition to accept and reward by giving an appropriate expression of gratitude and, where necessary, making the payment demanded. Similarly, the sentence *In fruit, apples are the best buy at the moment*, when it occurs as an



embedded *oratio obliqua* sentence in the compound sentence *He thinks that, in fruit, apples are the best buy at the moment*, is not being used primarily as a way of making a statement about the current state of the market in fruit; though if "he" is being appealed to as an authority in such matters, that is its "pragmatic" function. Its primary semantic use is as a device for indicating the "gist and upshot" both of the advice which the "he" in question would give to others, when called upon to do so, and of the principle on which he would base his own fruit-buying behaviour, should the need arise.

Needless to say, the the intention or sense of a description itself consists in a disposition on the the part of a listener who understands the expression in question to select instances which fall under that concept and distinguish them from others that do not, when called upon to do so. Likewise, the intention or sense of a sentence consists, on this view, in the disposition on the part of a listener who understands the sentence to act accordingly when called upon or otherwise given the appropriate incentive to do so.

- (2) The doctrine that intentionality is the mark of the dispositional explains why it is that some mental verbs (the majority) take an intentional object (i.e., the grammatical object of the verb is always an intentional locution); while a minority, the verbs of attention - apart, that is, from "mongrel categoricals" (Ryle 1949) like *searching*, *enjoying* and *trying*- do not. The reason is that most mental verbs - and, indeed, most mental predicates - serve to characterise either
- (a) a dispositional property of the person of whom they are predicated, as in the case of *knowing*, *believing*, *wanting*, *intending*, etc.
  - (b) the acquisition of such a disposition, as in the case of *noticing*, *realising*, *recognising*, *deciding*, etc.
  - (c) the performance of some activity with or from a particular disposition, as in the case of "mongrel categoricals" like *looking for*, *searching*, *trying*, *enjoying*, etc.

The few cases of mental verbs which do not take an intentional object are verbs of attention, like *watching*, *looking at*, *listening to*, savouring, etc. which do not entail either the acquisition of a disposition as consequence of the attention-paying activity, as in (b), or the possession of a disposition with which the activity is performed, as in (c).

- (3) The doctrine that intentionality is the mark of the dispositional, once it is recognized that there is no other device available in language which enables us to characterize the scope of a disposition, shows us why the attempt to extensionalize intentional-with-an-s locutions is both pointless and futile.
- (4) In particular, the doctrine that intentionality is the mark of the dispositional explains the fact that the proposal to extensionalize intentional locutions by replacing, e.g., propositional attitude ascriptions, by descriptions of what is assumed to be their "categorical basis" in the microstructure of the entity involved, in this case the brain (Quine 1960, Armstrong 1968, Davidson 1970), can be traced back to Peter Geach's (1957) critique of Ryle's (1949) analysis of dispositional statements as concealed hypotheticals, where both Ryle's theory and Geach's critique of it apply as much to "physical" dispositions as the do to mental ones. It also shows us what is wrong with the proposal to replace the description of the disposition by a description of its categorical basis in the microstructure of the entity which possesses the disposition. It shows us that the semantic function of the dispositional statement is quite different from that of the description of its categorical basis. The function of the dispositional statement is to specify the kind of event in whose liability to occur the disposition consists; the function of the categorical basis description is to specify what it is about the entity in question which makes the dispositional statement true (its "truthmaker", as C. B. Martin calls it). Every true dispositional statement requires a true categorical basis statement which specifies its truthmaker. But the two statements are not equivalent, as is shown by the fact that we can know

that the glass is brittle without knowing what it is about its microstructure that makes it brittle. The disposition and its categorical basis in the microstructure are two distinct and causally related things, not one and the same thing, as is illustrated by the example of a dispositional property like the horse power of a car which depends upon, but is not identical with the features of its microstructure, such as the number and cubic capacity of its cylinders in the case of a car driven by a reciprocating internal combustion engine.

- (5) By drawing our attention to the way in which an intensional-with-an-s locution enables us to specify the scope of a disposition, the doctrine that intensionality is mark of the dispositional gives us a handle on the key role that is played by dispositional property ascriptions in causal explanations. This point was first drawn to my attention by Professor William Kneale in the discussion that followed the presentation of an earlier version of this paper to the Senior Seminar, Department of Philosophy, University of Leeds, on Tuesday March 20th 1984. Professor Kneale's suggestion was that what makes ascriptions of dispositional properties intensional-with-an-s or referentially opaque is their modal character, the implied reference to the *possible* occurrence of events constituting "exercises" of the disposition in question.

The significance of this suggestion becomes apparent when it is related

- (a) to the counterfactual theory of causal necessitation (Hume 1777, Mackie 1962; 1974),
- (b) to Ryle's (1949) observation of the "lawlike" character of dispositional statements, and
- (c) to the observation made by Nelson Goodman (1965) in *Fact, Fiction and Forecast* to the effect that dispositional statements are able to sustain *counterfactuals*.

In a recent paper (Place 1987) I have attempted to bring these three observations together by means of the suggestion that the modal (Kneale) or lawlike (Ryle) character of dispositional statements consists in an implied universal quantification over limited stretches of time at any time within which "exercises", as Ryle calls them, of the disposition are liable to occur. In other words, every dispositional statement implicitly contains what Ryle calls "a concealed hypothetical" of the form

If at any time between  $T_1$  and  $T_n$  an event of type C occurs under conditions where other factors are favourable, an event of type E will occur.

From this we can deduce the counterfactual

Other things being equal, if at  $T_3$  (which, together with  $T_4$  falls between  $T_1$  and  $T_n$ ) an event of type C had not occurred, the event of type E which in fact occurred at  $T_4$  would not have occurred as and when it did;

and *that*, according to the counterfactual theory of causal necessitation, is equivalent to the statement

the event of type C which preceded the occurrence of the event of type E was a cause of the occurrence of E.

If this is correct, it means that dispositional statements, i.e., sentences that ascribe dispositional properties to the entities involved, play an essential role in, as it were, forging the link between two events or states of affairs, the cause and the effect. They do this by providing grounds for the counterfactual claim that had the cause not occurred or been the case, the effect would not have occurred or been the case. This in its turn allows us to drive yet another nail, if such were needed, into the coffin of the proposal to extensionalize the intensional by replacing the dispositional property ascription by a purely categorical description of the state of the entity's microstructure on which the existence of the property depends. For it now becomes apparent that a purely categorical description of the microstructure cannot by itself explain the existence of the dispositional property.

In order to do *that* or, in other words, in order to breathe life into the bare bones of the microstructure, we have to ascribe some kind of dispositional property to the various components of which the microstructure consists. Thus we cannot explain how the cubic capacity of the cylinders determines the horse power of an engine without attributing to the cylinders the dispositional property of allowing the piston to move up and down as the crankshaft rotates, thereby drawing in the mixture and/or adding impulsion to the rotation of the crankshaft as it moves down and compressing the mixture and/or expelling the exhaust gases as it moves up. It follows from this that so far from eliminating dispositional properties and the embarrassing intentionality of the locutions used to characterise them, the micro-reductive move simply moves the problem, if problem it be, down to the next level in the molar/molecular hierarchy. However far down the hierarchy we go, new dispositional properties keep on appearing at the level of the microstructure of the entities at the higher level. Even quarks have "charm", and what is charm, if not a dispositional property?

- (6) If it is the case that intentionality is the mark, not of the mental, but of the dispositional, and if it is also the case, as the behaviourist alleges, that there is a problem concerning the use of mentalistic explanations in the context of a scientific psychology, it cannot be the intentionality-with-an-s of such explanations which creates the problem.

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Appendix: Table 1

Embedded sentences in  AFTER VERBS OF	Indicative ( <i>that...</i> ) Interrogative ( <i>who, why, how, etc...</i> ) Imperative ( <i>to...</i> )	Indicative ( <i>that...</i> ) & Interrogative ( <i>who, why, how, etc...</i> )	Indicative ( <i>that...</i> ) & Imperative ( <i>to...</i> )	Interrogative ( <i>who, why, how, etc...</i> ) & Imperative ( <i>to...</i> )	Indicative ( <i>that...</i> ) only	Interrogative ( <i>who, why, how, etc...</i> ) only	Imperative ( <i>to...</i> ) only
UTTERANCE	tell advise	say suggest explain	admit swear promise agree mean allow	ask	inform answer assert deny declare submit assure demand concede reply repeat remark add insist	question ( <i>whether...</i> ) describe ( <i>how...</i> )	request order command undertake authorise permit
COGNITION 1.	<b>learn</b> know remember forget	<b>see</b> <b>hear</b> <b>notice</b> predict	<b>expect</b> be reminded ——[of] think —[of, about]		<b>recognise</b> <b>anticipate</b> <b>imagine</b> believe ———[in]		
COGNITION 2.		guess wonder predict estimate work out calculate doubt ( <i>whether...</i> )			dream (tr.) surmise suppose infer conclude		
VOLITION 1.			be pleased ——[at] be afraid ——[of] be sad —[dened by]		be excited ——[by] be angry —[with, at] be worried ——[by] be disgusted ——[at] be unhappy ——[at] be relieved ——[at]		<b>like</b> <b>want</b>
VOLITION 2.	decide		wish intend				<b>try</b>

**Table 1.** English verbs classified according to the mood of an embedded sentence which can occur as its grammatical object. Psychological verbs which also accept as grammatical object a noun phrase describing an object or event are classified either as **COGNITION 1.** or as **VOLITION 1.** Those which occur (transitively) only with an embedded sentence in the object position are classified **COGNITION 2.** or **VOLITION 2.** Those usages of psychological verbs which appear to escape the metaphor of linguistic control are given in **bold type.**



Appendix 2: Table 2

PROPOSITIONS	EV	UTP 1	UTP 2	EXCEPTIONS
1. All mental phenomena are intenTional.	YES <sup>1</sup>	NO	NO	Attention, Sensation, [Perception & Knowledge]
2. All intenTional phenomena are mental.	YES	YES <sup>2</sup>	NO	All non-mental dispositional properties.
3. All intenTional phenomena require intenSional descriptions.	YES <sup>3</sup>	NO <sup>4</sup>	YES	[Goal directedness and meaning].
4. All mental phenomena require intensional descriptions.	YES <sup>1</sup>	NO	NO	Attention.
5. (a) All intenSional locutions describe mental phenomena.	NO	NO	NO	Modal sentences.
5. (b) All non-modal intenSional locutions describe mental phenomena.	YES	YES <sup>1</sup>	NO	All ascriptions of non-mental dispositional properties.
5. (c) All intenSional locutions describing mental phenomena are mentalistic.	YES	YES <sup>2</sup>	NO	Verbs of desire, search, expectation, perception and emotion.
6. All mentalistic locutions are intenSional.	YES	YES	YES	None.
7. All embedded O.O. sentences are intenSional.	YES	YES	YES	None.
8. All intenSional locutions can be and are best expressed by an embedded O.O. statement.	YES <sup>2</sup>	NO	NO	Verbs of desire, search, expectation, perception and emotion.
9. All embedded O.O. sentences are mentalistic.	YES	YES	YES	None.
10. (a) All mentalistic locutions can be and are best expressed by an embedded O.O. sentence.	YES <sup>2</sup>	NO	YES	[[Verbs of desire, search, expectation, perception and emotion].
10. (b) All mentalistic locutions are embedded O.O. sentences.	NO	NO <sup>4</sup>	YES	Verbs of desire, search, expectation, perception and emotion.

<sup>1</sup> first deviation from the Established view (EV) - the objects of attention are non-intentional

<sup>2</sup> second deviation from the Established view (EV) - wanting is not a propositional attitude

<sup>3</sup> third deviation from the Established view (EV) - extensionalizing the intensional

<sup>4</sup> fourth deviation from the Established view (EV) - the semantic "relation" is intrinsically intenTional

<sup>5</sup> fifth deviation from the Established view (EV) - intenTionality is the mark of the dispositional