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ETHICS AS A SYSTEM OF BEHAVIOR MODIFICATION

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That the function of moral judgments is to modify the behavior of those to whom they are addressed is one of those facts that are so obvious and familiar that they seldom, if ever, attract attention, with the result that their implications are seldom considered and the importance of those implications is overlooked. In this chapter, I propose to examine the practice of making moral judgments and, more important, the practice of publicly uttering those judgments, from the standpoint of the scientific theory of behavior modification which has emerged in recent years from the experimental analysis of behavior as developed by Skinner and his disciples. It is my hope that this investigation will throw light, both on the psychological mechanisms involved in what is arguably the most effective and most widely practiced method of social control that human beings have yet devised, and on some of the peculiarities of moral psychology and moral discourse which have puzzled moral philosophers for centuries and in some cases for millennia.

MORAL JUDGMENTS AS IMPERATIVES

I said at the outset that it is an obvious fact that the function of moral judgments is to modify the behavior of those to whom the judgment is addressed. But is it all that obvious? Is it indeed a fact at all? In other words, is it true that all moral judgments have this function? Certainly those who enunciate moral rules or principles or tell other people what they have an obligation to do or not to do in a particular situation which currently exists or may arise in the future intend to influence their audience to conform to the principle they enunciate or follow the more specific moral prescription they are making, as the case may be. In such cases, as Immanuel Kant first pointed out nearly two hundred years ago, a moral judgment has the force of an imperative. It orders or commands the listener to do or refrain from doing the action mentioned in the judgment.

THE PROBLEM OF RETROSPECTIVE MORAL JUDGMENTS

But what about those cases where a retrospective moral judgment is passed on something the listener has already done, as when someone says *You did the right thing* or *You shouldn't have done that* or *You were wrong to do that*? It seems quite absurd to suggest, as Professor Hare does in his book *The Language of Morals* (Hare 1952, p. 189) that such judgments are retrospective or past tense imperatives. How can you order someone to do or not to do something they have already done? Nor can it be plausibly argued that to say *You did the right thing* or *You were wrong to do that* is equivalent to saying *Do it again next time* or *Don't do it again.* For if that were the interpretation, why should anyone say, as they frequently do, *You did the right thing. Do that again next time* or *You were wrong to do that. Don't do it again*?

A slightly more plausible version of the imperative theory of retrospective moral judgments is that presented by Stevenson in his book *Ethics and Language* (1944). Stevenson argues that moral judgments express the speaker's approval or disapproval of the behavior mentioned in the judgment and urge the listener to share that approval or disapproval as the case may be. As applied to retrospective moral judgments with respect to the listener's own behavior, Stevenson's view would make moral praise into an invitation to the listener to congratulate him or herself on his/her past performance, while moral blame would come out as a similar invitation to join the speaker in disapproving of what one has done.

These awkward attempts to squeeze retrospective moral judgments into the straitjacket of the imperative theory overlook what must be obvious to anyone with the most elementary acquaintance with the principles of behavior analysis, namely that these retrospective moral judgments act, in the case of *You did the right thing*, as a reward for or positive reinforcement of the specified behavior, and in the case of *You were wrong to do that*, as a

punishment for behaving in that way.[1] Of course, from the fact that these retrospective moral judgments act either as verbal reinforcers or as verbal punishers, it follows that their function is indeed to influence the addressee in the direction repeating the kind of action that is praised and not repeating the kind of action that is condemned. But the way in which reinforcement and punishment produce their effect on behavior is quite different from the way in which a command or instruction produces its effect. Reinforcement and punishment are consequences which follow and increase or reduce the probability of the individual's emitting the response in question on future occasions, whereas a command or instruction is an antecedent which acts as a discriminative stimulus relative to the consequences of subsequent behavior. Therein lies part, at least, of the difference between saying *You did the right thing* and saying *Do that again next time*. Both utterances have the function of influencing behavior in the same direction, in the direction of repeating what has just been done, but the effect is produced in what are, from the standpoint of behavior analysis, two quite different ways.

MORAL JUDGMENTS PASSED ON THE BEHAVIOR OF THIRD PARTIES

So far we have only considered cases in which a moral judgment is made which applies, either exclusively or among others, to the person or persons to whom the judgment is addressed. But what about the cases where judgment is passed on the behavior of someone other than the person or persons addressed? In some of these cases, both where the judgment is prospective as in *What he ought to do is . . .* and where it is retrospective as in *He shouldn't have done that,* the point or function of uttering the judgment is to induce the listener either to pass on the judgment to the person concerned or, more commonly, to join the speaker in bringing moral pressure to bear, thereby increasing the effectiveness of the moral judgment, whether as a command, a reinforcement or a punishment, when it is subsequently addressed to him or her.

This explanation, however, can apply only in those cases where the listener is in a position to influence the behavior of the person about whom the judgment is made. Where this is not the case, either because the judgment is made about the behavior of someone who is too far removed in physical or social space to be influenced by the listener or because the judgment is made about the behavior of someone who is either dead or, as in the case of a character in fiction, never existed, some other explanation of the point or function of uttering the judgment is required.

In the case where a moral judgment - almost invariably a moral condemnation blaming someone for some misfortune that has befallen the speaker - is made under circumstances where the person concerned is too far removed in physical or social space to be influenced by anything either the speaker or the listener might say about him, the primary function of the utterance would seem to be that it allows the speaker to give expression to and thereby discharge the pent-up anger and frustration provoked by the misfortune. Because, when addressed to the alleged perpetrator in person, the effectiveness of a condemnation is increased if the speaker can secure endorsement from other members of the social group, inviting and securing such endorsement from the listener in a case where the target of the speaker's wrath is beyond the reach of anything either of them can say or do can, nevertheless, serve to enhance its effectiveness as an expression of that wrath.

An experimental analogue for this phenomenon is provided by the behavior of the pigeon in an experiment reported by Azrin, Hutchinson & Hake (1966). When frustrated, as we should be inclined to say, by the onset of time-out when responding for food on a continuous reinforcement schedule, the pigeon in this experiment learned to peck a second key in the Skinner box when pecking this second key was reinforced by the appearance of another bird in its, immediate vicinity. This second bird was prevented from moving by a restraining

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[1] [Added after publication] Lowe and Higson (1983) have pointed out that whereas in the case of linguistic incompetents (animals and pre-linguistic human infants) reinforcing and punishing consequences are effective in changing the probability of the recurrence of a piece of behavior only if they occur within 30 seconds of its emission (Perin, 1943) or 0.5 seconds if secondary reinforcement is excluded (Grice, 1948), much longer delays can be effective in changing the behavior of linguistically competent older children and adults, provided that a verbal specification of the behavior-consequence relation accompanies the delivery of the consequence. Needless to say, a retrospective moral judgment acts both as a consequence and as a specification of the behavior to which it is intended to relate.

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harness, thus providing a suitable object for the first bird to attack, and thus discharge its pent up anger provoked by the frustration involved in the sudden failure of pecking to produce food. But although the target bird in this experiment was clearly "a scapegoat" in the sense that it was in no sense "responsible" or "to blame for" the time-out from reinforcement, its ability to function as a scapegoat for the experimental bird clearly depended on the physical presence of the target bird at or shortly after the onset of time-out and by the obvious signs of distress shown by the target bird when attacked in this way. By contrast, in the case we are considering not only is the object of blame or condemnation absent from the situation in which the speech act of blaming or condemning is uttered, but, except in the unlikely event of the target of blame coming to know what has been said, he or she is unlikely to be affected by it. Even if that were to happen, any such effect is unlikely to be witnessed by the original author of the judgment, whose anger may well, by that time, have long since subsided.

However, it has been shown by Azrin, Hutchinson, and Sallery (1964) that visible and tangible evidence that the victim is suffering from the attack directed towards it, though it helps, is not a necessary condition for the occurrence and persistence of experimentally-induced attack behavior. As this study shows, a stuffed dummy or even a soft-leather ball which can be torn apart can be used as the target for anger in place of a live animal. We have here an analogy for the practice of burning effigies of people who are, or were once, objects of hatred, such as Guy Fawkes, which still survives as a harmless ritual in England long after the passions which provoked it in the first place have subsided.

Another function which is performed by the moral condemnation of people. whose behavior either cannot or is unlikely to be influenced by it is also illustrated by the example of the burning of Guy Fawkes in effigy. This is the function of reinforcing the solidarity of the social group which the moral condemnation of those who are perceived as its enemies and 'outsiders' appears to promote. Why joining together in an act of moral condemnation should have this effect is not completely explicable in terms of the current behavior theory, though part of the answer will become apparent later when we come to consider the role of the social group in giving moral commendation and praise its power to act as a reinforcer and in giving moral condemnation and blaming. its power to act as an aversive event.

MORAL JUDGMENTS PASSED ON CHARACTERS IN HISTORY AND FICTION

Yet neither the displacement of pent-up feelings of anger and frustration onto a scapegoat nor the reinforcement of social solidarity by asserting the moral turpitude of enemies and outsiders can account for those cases in which moral judgments are passed on the behavior of fictitious characters or persons long dead whose actions have no obvious relevance to the current misfortunes of either speaker or listener. The case where moral judgments are passed on the behavior of fictitious characters in fictitious situations provides, perhaps, the best clue to the function of the moral judgment in all such cases whether factual or fictitious. For it is clear that where a moral judgment is passed on the behavior of a fictional character in fictitious circumstances in the context of a fable, parable, or other moralizing tale, the point or function of the judgment and indeed of the tale as a whole is to influence the behavior of the listener or reader in the direction of following the example provided by the behavior of the characters whose actions are judged to be right or good and in the direction of avoiding those actions that are judged morally wrong on occasions when the listener or reader encounters similar circumstances in his or her own life.

That such tales and the judgments they contain do have, or at least are intended to provide, this kind of moral education is easily appreciated. What is much more difficult is to explain in terms of the accepted principles of behavior analysis why such a procedure should have its intended effect, if indeed it does. The root of the problem here is that the way verbal utterances in their capacity as stimuli, both as antecedents and as consequences, exercise control over the behavior of the listener is not well understood in terms of the principles of behavior analysis as described by Skinner and his disciples.

SKINNER'S *VERBAL BEHAVIOR* AND ITS DEFECTS

In his 1957 book *Verbal Behavior* Skinner has attempted to provide an account of verbal or language behavior in terms of the conceptual framework of Radical Behaviorism. Unfortunately, his account of verbal behavior in that book is heavily biased towards the verbal behavior of the speaker to the neglect of the problems presented by the response of the listener to what is said. To make matters worse, the book was effectively torpedoed on its maiden voyage by a devastating Review by Noam Chomsky (1959) from the effects of which in the eyes of all but Skinner's most devoted disciples, it has never recovered.

As I have argued elsewhere (Place 1981b), the principal source of Skinner's failure in *Verbal Behavior* to provide an adequate account of the listener's response to the verbal stimuli generated by the speaker's behavior is his refusal to draw the traditional grammatical distinction between the unit of verbal behavior, the sentence, which is required in order to evoke a determinate response from the listener and the words and phrases of which sentences are composed. Without that distinction, Skinner is unable to appreciate the importance of the point to which Chomsky has repeatedly drawn attention, namely, that, unlike words and phrases, sentences are seldom repeated word for word, and are constructed *de novo* on each occasion of utterance in accordance with the syntactic and semantic conventions endorsed by the verbal community constituted by the speakers and interpreters of the natural language in question.

When words and phrases are put together so as to form a grammatically complete sentence which, in that precise form, the listener may never have encountered before, they nevertheless acquire a unique property, the ability to evoke determinate responses from any listener who is a competent member of the verbal community constituted by the speakers and interpreters of the natural language or code to which the sentence in question belongs. But not only is the verbally competent listener able to decode sentences which he or she has never previously encountered, but the behavior which such a novel sentence is able to evoke may likewise be behavior which, in that precise form, the listener has never previously emitted.

THE CONCEPTS OF "DISCRIMINATIVE STIMULUS" AND "CONTINGENCY"

Although Skinner fails to address the phenomenon whereby novel sentences can evoke novel behavior on the part of the listener in *Verbal Behavior,* he does point the way towards such an account in "An operant analysis of problem solving" (Skinner 1966) which is reprinted as Chapter Six of his book *Contingencies of Reinforcement* (Skinner 1969).

In order to appreciate the relevance of "An operant analysis of problem solving" for the issue of novel sentence construction and construal, something needs to be said about the notions of "discriminative stimulus" and "contingency" and the relationship between the two. The term "discriminative stimulus" was first introduced by Skinner in Chapter Five of *The Behavior of Organisms* (Skinner 1938). It derives, evidently from Pavlov's (1927) notion of "the conditioned stimulus." However, Skinner's "discriminative stimulus" differs from Pavlov's "conditioned stimulus" in two crucial respects. In the first place, whereas a conditioned stimulus is said to acquire its properties solely by virtue of its consistent association with the unconditioned (reinforcing) stimulus, Skinner's discussion of the discriminative stimulus emphasizes the contrast between S^D, the stimulus in whose presence a particular response is reinforced, and S^Δ, the stimulus constituted by the absence of the S^D and which is thus associated with the absence of reinforcement. Second, whereas the conditioned stimulus is said to "elicit" the conditioned response, Skinner's discriminative stimulus is said to provide "an occasion" for the spontaneous "emission" by the organism of an operant which has been reinforced in the presence of S^D, but not in the presence of S^Δ. In other words, the discriminative stimulus acts, not as a mechanical trigger for the response which it "evokes," but as "a sign" of the existence in the environment of a particular contingency, the contingency whereby the emission of the operant is reinforced in the presence of S^D, but not in the presence of S^Δ.[2]

This way of describing the role of the discriminative stimulus was not available to Skinner in 1938 because he had not then developed the notion of "a contingency." By "a contingency" is meant a causal relationship whereby given certain Antecedent conditions, the emission of a certain type of Behavior will have a particular set of Consequences. These three elements, Antecedents, Behavior, and Consequences (ABC) are said to constitute the three terms or "legs", as I prefer to call them, into which any contingency can be analyzed. As they affect the organism's behavior, contingencies in this sense are of two basic types depending on whether the effect of the Consequences is to increase or strengthen the probability that similar behavior will occur on relevantly similar occasions in the future, in which case the Contingency is "a Contingency of Reinforcement," or to decrease or weaken the probability that similar behavior will occur on relevantly similar occasions in the future, in which case

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[2] [Added after publication] In contrast to Skinner who has remained faithful to the mechanical response-elicitation account of what he calls "respondent conditioning" which he developed in the 1938 book, Rescorla and Wagner (1972) have developed a similar account of the function of the conditioned stimulus in classical Pavlovian conditioning. On this view, the function of the CS is to "predict" the onset of the US. Clearly on this interpretation, this second difference between Pavlov's CS and Skinner's S^D disappears. Moreover, since Pavlovian discrimination learning involves a differentiation of function between the conditioned stimulus (CS) which is associated with the subsequent appearance of the US and the conditioned inhibitory stimulus (CI) which is associated with its failure to appear, the first difference between the two concepts becomes no more than a matter of nomenclature.

the Contingency may be described, following the terminology suggested by Harzem and Miles (1978) as a "Contingency of Disinforcement."

"CONTINGENCY-SHAPED" AND "RULE-GOVERNED" BEHAVIOR

In "An operant analysis of problem-solving," Skinner introduces an important distinction between what he calls "contingency-shaped" and "rule-governed" behavior. Contingency-shaped behavior is behavior which is shaped or moulded to the contingencies which govern its emission by repeated exposure to them. Examples of contingency--shaped behavior are the responding of a pigeon or rat in a Skinner Box after repeated exposure to one of the classical "Schedules of Reinforcement" (Ferster and Skinner 1957), or, in the case of a human being, the tactical execution of a well developed motor skill such as swimming, playing tennis, driving a car or constructing sentences.

[This section is rewritten after publication.] In the case of rule-governed behavior, the organism's response to the relevant contingency is mediated by a verbal formula or "rule" which is described by Skinner (1969, p. 147) as a "contingency-specifying stimulus." Rule-governed or, as I would prefer to call it, 'rule-initiated' behavior is the typical response of a linguistically competent human being to a problem situation, one for which the individual has no readily-available contingency-shaped response strategy. The contingency-specifying verbal formula or 'rule' which the human problem solver deploys in order to generate an appropriate response in a situation of this kind may occur as an echoic response to a verbal formula emitted by another speaker at the time or as a "recollection" of a rule emitted by another speaker on a previous occasion. Alternatively, he or she may respond on the basis on a recollection of a previous exposure to the same or similar contingency or an observation of its operation in the case of someone else's behavior, by constructing an appropriate "hypothesis" as to the contingency involved. In other cases, what is "recalled" may be verbal formula, whatever its original source, which has proved successful on some similar occasion in the past.

SENTENCES AS DISCRIMINATIVE STIMULI

[This section is rewritten after publication.] For our present purposes the significance Skinner's concept of a rule is that a rule is evidently a verbal formula or sentence, consisting of a string of words which

(a) is typically put together for the first time on and for the occasion of its (in this case self-directed) utterance, and

(b) has a syntactic or, as Skinner would say, "autoclitic" structure which allows it to "specify" or "depict" a contingency to whose existence and/or presence the listener is thereby alerted or otherwise orientated.

What is interesting about this suggestion is that in relation to rules Skinner is not only acknowledging the phenomenon of novel sentence construction emphasized by Chomsky. He is also supplying something which Chomsky's account conspicuously lacks, namely an adaptive function for the speaker's ability to construct and the listener's ability to construe such sentences.

[For, if we apply Skinner's thesis that rules are "contingency-specifying stimuli" to sentences in general, as I would argue we both can and should, and combine this with the suggestion made above that discriminative stimuli are signs which prepare the organism to encounter a particular contingency, we are led to the conclusion that sentences, as they affect the behavior of the listener, must be construed as discriminative stimuli.] But if sentences act as discriminative stimuli with respect to the behavior of the listener, there are two respects in which they differ from the discriminative stimuli described by Skinner in Chapter Five of *The Behavior of Organisms* (1938).

One respect in which sentences differ from the discriminative stimuli described by Skinner in *The Behavior of Organisms* is that the speaker's ability to construct novel sentences in accordance with the syntactic conventions endorsed by the relevant verbal community gives to such novel sentences the ability to act for the listener as discriminative stimuli with respect to contingencies the like of which the listener may have never before encountered. This contrasts with Skinner's S^D and S^Δ both of which acquire their ability to act as discriminative stimuli for the organism from a repeated association with a contingency in which an operant is followed in the case of S^D by reinforcement and in the case of S^Δ by non-reinforcement. In the case of the sentence, the repeated association in the past is between the constituent words and the sentence pattern on the one hand and the elements and structure of the contingency on the other, rather than between the sentence as a whole and the contingency for which it nevertheless acts as a discriminative stimulus.

Whereas the ability to act as a discriminative stimulus with respect to a contingency which the listener has never previously encountered is a unique, if not a defining property of the sentence in its capacity as stimulus, the other respect in which sentences differ from the discriminative stimuli described by Skinner (1938) is more a matter of the difference between discriminative stimuli (defined as stimuli which prepare an organism to encounter a particular contingency) in general and those discriminative stimuli that are normally studied *under that description* in the laboratory, than a difference between verbal and nonverbal discriminative stimuli.

Skinner's S^D is a stimulus which prepares the organism to encounter a contingency of reinforcement, like a notice on the door of a shop or restaurant which reads *We are open.* Likewise his S^{Δ} is a stimulus, like the notice on the door *Sorry, We're closed,* which prepares the organism to encounter a non-reinforcement, time-out or extinction contingency. By contrast not only are there sentences like the threat *Do that again and you'll be sorry* which prepares the listener to encounter a contingency of punishment, there are also sentences like the sentence *Joe is coming* which are wholly neutral with respect to the valence for the listener of the contingency they specify. The same form of words may be used by the speaker regardless of whether the appearance of Joe as consequence of the behavior of opening the door is welcome (positively reinforcing) or unwelcome (aversive or positively disinforcing) as far as the listener is concerned. This observation reinforces Jack Michael's (1982) distinction between the discriminative and motivational functions of stimuli and suggests that contingencies in the sense in which discriminative stimuli prepare the organism to encounter them should be regarded as neutral with respect to the valence for the responding organism of the consequences of the behavior in terms of which the particular contingency is defined.

BEHAVIORAL CONTINGENCY SEMANTICS

We have seen that by constructing an appropriate sentence in accordance with the syntactic and semantic conventions endorsed by the verbal community, the speaker generates a discriminative stimulus which prepares the listener to encounter a contingency the like of which he or she has not previously encountered. What we now have to consider is the behavioral mechanism whereby that effect is achieved. In a recent article (Place, 1983) I have proposed the term "Behavioral Contingency Semantics" as the name for a behavioral theory designed to account for the construction of novel contingency-specifying stimuli or sentences. Behavioral Contingency Semantics is a version of Wittgenstein's (1921/1971) Picture Theory of the meaning of sentences in which an atomic or single clause sentence, like the sentence *The baby is crying*, is said to "map," "depict" or, to use Skinner's term, "specify" not, as for Russell (1918/1919) and Wittgenstein *(op. cit.),* an atomic fact, but an event or state of affairs which constitutes one of the three "terms" or "legs" of a contingency, an Antecedent condition (*The baby is crying*), the Behavior to be emitted (*Give it a bottle*) and the Consequence to be expected from so behaving (*It will go back to sleep*).

Given these three atomic sentences, we can now construct two compound conditional sentences of the form "If *s* then *t*." The first of these, the conditional imperative or "conditional mand", *If the baby cries, give it a bottle* specifies the Antecedent condition and the Behavior to be emitted under that condition. It constitutes what we may call, on Skinner's use of the term 'rule', "a prescriptive rule." The second, the conditional statement or "conditional tact", *If you give it a bottle, it will go back to sleep* specifies the Behavior and its Consequences and constitutes what we may call a descriptive rule in Skinner's sense of the latter term. Finally the three clause sentence, *If the baby cries, give it a bottle and it will go back to sleep* specifies all three legs of the contingency.

Although only the last of these sentences can be said to specify the contingency as a whole, any one of them with the doubtful exception of the consequence-specifying sentence *It will go back to sleep* can act as a discriminative stimulus for the contingency as a whole and can be used under appropriate circumstances as a way of inducing the listener to perform the behavior in question. Even the consequence-specifying sentence can be used in this way, if it occurs in the form of the optative *I wish it would go to sleep* or the interrogative/optative *Why doesn't it go to sleep?*

MANDS, TACTS AND VERBAL MOTIVATORS

In Chapter Three of *Verbal Behavior* (1957, pp. 35-51) Skinner introduces the concept of "a mand," a type of speech act (Searle, 1969) which embraces what we ordinarily talk about as commands, requests, and questions. In Skinner's terms a mand is a verbal operant whose emission by the speaker is reinforced insofar as it secures from the listener the emission of the behavior which it specifies. As he puts it (1957, p. 36), "the mand ... works primarily for the benefit of the speaker." In this respect it contrasts with "the tact," the other major category of

verbal operant distinguished by Skinner which, as he puts it, "works for the benefit of the listener by extending his contact with the environment" (Skinner, 1957, p. 85). It does this, presumably, by providing the listener with advance information about contingencies the like of which he may not have encountered before.

Unfortunately, partly because of his failure to draw the distinction between sentences and the words of which they are composed (Place, 1981b), Skinner's use of the term "tact" is somewhat confused [see Place, U. T. (1985). Three senses of the word "tact". *Behaviorism*, *13*, 63-74]. It is clear, nevertheless, that what he has in mind when he contrasts mands and tacts in terms whether it is the interests of the speaker or the listener that are served by the utterance is the contrast between those sentence utterances (mands) whose function is to direct the behavior of the listener in the direction required by the speaker and those (tacts) whose function is to provide the listener with information about the prevailing contingencies, without constraining the use to which that information is put. Moreover, just as mands are what we ordinarily talk about as "commands," "requests," and "questions," so tacts correspond approximately to what we ordinarily talk about as "statements" or "assertions"

However, when we consider examples like the sentences *The baby is crying, Give it a bottle and It will go back to sleep* discussed above, we see how difficult it is in practice to draw this distinction. For, by the normal criteria of grammar and logic, the sentences *The baby is crying* and *It will go back to sleep* are in the indicative mood and when uttered in the appropriate context constitute statements or assertions which are either true or false. In both these respects they contrast with the sentence *Give it a bottle* which is in the imperative mood and does not have a truth value. Nevertheless, since as we have seen their function in the situation we are envisaging is to induce bottle-giving behavior on the part of the listener, rather than to supply information which the listener is free to make use of in whatever way best serves his or her interests, by Skinner's functional criteria they qualify as mands rather than as tacts. Yet it is only by virtue of their pragmatic function in inducing the listener to emit the required behavior that sentences like *The baby is crying* or *I wish it would go back to sleep* qualify as mands. At the semantic level, as well as at the syntactic level, the distinction between these statements and the imperative *Give it a bottle* is preserved. For it is only the latter sentence which actually *specifies* the behavior to be performed by the listener.

The difference between specifying the Antecedents of behavior as in *The baby is crying* or its Consequences as in *It will go back to sleep* rather than the Behavior itself, as in *Give it a bottle,* lies in the different functions performed by these sentences in controlling the subsequent behavior of the listener. This difference in function is another example of the distinction to which Jack Michael (1982) has drawn attention between the discriminative and motivational ("establishing") functions of stimuli. In the case of these behavior-inducing utterances, the distinction is between those sentences or aspects of sentences whose function is to indicate to the listener what behavior is to be emitted or omitted and those which provide the listener with an incentive to behave in this way. Thus of our three atomic sentences it is only the imperative *Give it a bottle* which actually specifies the behavior to be performed. The statement *The baby is crying* specifies what Michael has called "an establishing condition" whereby any behavior which reverses that state of affairs is reinforced. It thus implicitly promises the reinforcement of such behavior by the consequence specified by the other statement *It will go back to sleep.*

In the light of these considerations it would seem that we need to distinguish at least three distinct categories of functionally complete verbal operant or sentence utterance: (1) the mand which provides the listener with information about the behavior required of him by the speaker, (2) the tact which provides the listener with information which he requires for his own purposes and (3) the verbal motivator which provides the listener with an incentive to emit the kind of behavior required of him by the speaker and which is specified by the speaker's mand. Verbal motivators in this sense are of four main kinds: (1) promises of subsequent reinforcement, either verbal as in the case of *Please* or nonverbal as in *I'll make it worth your while*, (2) threats of subsequent punishment - which again may be verbal as in *I shall be very annoyed if you do that again* or nonverbal as in *Unless you behave, you won't watch television,* (3) verbal reinforcers like *Very good! You're absolutely right! Thank you!* etc. and (4) verbal punishers like *That was naughty!, No!, I don't agree, You shouldn't have done that,* etc.

KANT'S "CATEGORICAL IMPERATIVE" AND THE MOTIVATION OF MORAL CONFORMITY

Returning to the topic of moral judgments, it is evident that the distinction between mands which specify the behavior required of the listener and verbal motivators which provide the listener with an incentive to perform or repeat or not perform or not repeat the specified behavior helps us understand the difference, discussed earlier, between prospective moral judgments like the Ten Commandments and retrospective moral judgments in which

the listener is praised or blamed for what he has just done. It also, I suggest, helps understand Kant's contention that a moral rule or prospective moral judgment is to be interpreted as what he calls "a categorical imperative."

When Kant describes sentences like *You ought not to steal* or *You ought not to tell lies* as imperatives, what he is saying is that, although grammatically indicative, the force of these sentences is that of an imperative. In Skinner's terms, they qualify as mands in so far as they specify behavior whose (in this case) omission by the listener reinforces their utterance by the speaker.

But the point that Kant is making when he describes these judgments as "categorical imperatives" is not that their imperative force is disguised behind an indicative grammatical structure. It is rather that they differ from what he calls "a hypothetical imperative" such as the sentence *Avoid dishonesty, if you want to be respected by others,* in that compliance with the imperative is not made contingent on a desire on the part of the agent, specified in the antecedent of a conditional which supplies an incentive for the listener to comply with it.

The reason why no such verbal motivator is required in the case of these prospective moral judgments is not that compliance with a moral imperative requires no antecedent incentive and no subsequent reinforcement. It is simply that a moral imperative requires no separate verbal motivator to supply an incentive for compliance with it. Moral imperatives carry with them their own incentive in the form of an implied promise of social approval in the case of compliance and an implied threat of social disapproval in the case of failure to comply. These implied promises and threats are not just of approval or disapproval on the part of the speaker. They involve the approval or disapproval of the whole social group in whose name the speaker issuing the moral imperative is implicitly claiming to speak.

THE ROLE IN MORAL EDUCATION OF MORAL JUDGMENTS PASSED ON THE BEHAVIOR OF CHARACTERS IN HISTORY AND FICTION

While I think I can reasonably claim that this account of the way in which verbal operants are used to control the behavior of the listener goes some way towards remedying the defects of Skinner's account as presented in *Verbal Behavior,* it must be admitted that, as it stands, the theory only accounts for those sentence utterances which relate to the immediate behavioral concerns of the listener, to present circumstances which are liable to affect the listener's behavior, to the very recent past or to the immediate future. It does not explain the effect of sentences relating to circumstances which are so far removed in space and/or time as to have no relevance to the immediate behavioral concerns of the listener or, to return to the case from which our whole discussion of the effect of the sentence on the listener arose in the first place, where the circumstances referred to are entirely fictional and recognized to be so by both speaker and listener. What is required here and what I confess I cannot supply in terms of the existing armory of concepts developed for the purpose of the experimental analysis of behavior is an explanation of the way a narrative, whether historical or fictional, produces its effect on a listener or reader. What appears to happen is that the listener or reader is able to experience the events portrayed in the narrative, not as a disinterested observer might be supposed to do, but through the mysterious process of identification with one or more of the characters in the narrative, to experience the contingencies of reinforcement and punishment which are represented as impinging on the character concerned, almost as if he or she had personally experienced those contingencies *in vivo.*

This problem of giving a behavioral analysis of the phenomenon of identification also arises in the case of narratives presented in the form of a play or a film, where the actual stimuli received by the audience is much closer to those that would be received by an actual participant in the events represented than is the case in a verbally-presented narrative. That, by itself, does not make the phenomenon of identification any easier to understand, but it does help to underline the fact that, given identification with the relevant character, many of the verbal operants that occur in the context of a narrative, including in particular the moral judgments that are passed on the behavior of a character in the narrative with whom the listener or audience identifies, have, in attenuated form, the same effect on the behavior of the listener or audience that they would have had, if they had occurred in the context of real life. Consequently the use of narrative, whether fictional or historical, is an effective way of helping the individual to learn the standard contingencies of reinforcement which he or she is liable to encounter in real life without incurring the risks that would be involved in actually experiencing those contingencies *in vivo.* Moreover, although it is often possible to learn those contingencies by learning an abstract verbal formula which states the causal law or moral rule involved, this method is only effective in so far as the learner can apply the causal or moral principle to examples of concrete instances to which it applies; and for this purpose, where the risks involved in practical experience are unacceptable, a historical or fictional narrative is the only feasible alternative. In the case of the inculcation of moral principles it is not so much the risk to life and limb which

preclude the use of practical experience of the consequences of transgressing moral principles as the fact that in order to provide such experience it would be necessary to induce the very behavior which the moral principle in question is designed to prevent. It goes without saying that such a procedure would almost certainly defeat the very object it was designed to bring about. Hence, the importance of moral judgments passed on the behavior of the characters in both historical and fictional narrative in moral education.

HOW MORAL JUDGMENTS ACQUIRE THEIR MOTIVATING PROPERTIES

Perhaps the most puzzling problem concerning this use of words to control the social behavior of other human beings is to explain how it is that retrospective moral judgments about the behavior of the individual to whom those moral judgments are addressed acquire the properties which they clearly do have of acting as motivators, i.e. as reinforcers in the case of moral praise and as punishers in the case of moral blame, relative to the subsequent repetition by the listener of the specified behavior. These retrospective moral judgments which constitute the speech acts (Austin, 1962; Searle, 1969) of praising and blaming the antecedent behavior of the listener come into focus as the basic agents of behavioral change as soon as we begin to look at moral judgments as a system of behavior modification. This contrasts with the standpoint of the moral philosopher who takes the moral imperative and the universal imperative or moral principle in particular as his paradigm case of the moral judgment from which everything else proceeds. As we have seen, from the standpoint of behavior modification, these prospective moral judgments only affect behavior in so far as they effectively promise subsequent moral praise contingent upon the listener's compliance with the imperative and/or effectively threaten subsequent blame and recrimination contingent upon its transgression.

In this connection I shall devote special attention to the phenomenon whereby having to take the blame for something that one has done or failed to do constitutes one of the most powerfully aversive events in the experience of any but the most hardened and insensitive of psychopaths, rather than on the positively reinforcing effects of moral praise. I do this, in part because praise in all its forms is widely recognized as a powerful social reinforcer by applied behavior analysts and the principles governing its acquisition of those reinforcing properties are relatively well understood. By contrast the psychology of blaming has been almost totally neglected, despite the fact that the control of behavior through moral criticism and the attribution of blame is by far the most commonly used method of applying moral judgments to the control of behavior - so much so that the notion of passing a moral judgment has become synonymous with moral criticism, as, in the saying from the Sermon on the Mount: "Judge not, that ye be not judged" - itself incidentally a moral imperative. Another reason for focusing on the act of blaming is that because of the importance we all attach to avoiding having to take the blame for something we have done or failed to do, an examination of blaming highlights the complex body of largely unwritten rules or conventions which determine whether or not the speech act of blaming someone for something succeeds in producing its intended effect. These conventions are manifested in the different excuses which are deployed by the accused in order to avoid or, at least, mitigate the aversiveness of having to take the blame. Although the same principles govern the applicability of moral praise, the recipient of moral praise does not have the same motive as does the recipient of blame for disputing its application in this case. He [or she] may deny that the praise is deserved, but only because he or she has learned that self-deprecation in such circumstances is itself reinforced by further indications of moral approval.

AN ANALYSIS OF THE COMMON DOMESTIC QUARREL

Another reason for focusing on blame and criticism rather than praise is because of the remarkable analogy between the act of blaming someone for what he has done and the reflexive fighting or attack behavior exhibited by the animals in that remarkable series of experiments by Azrin and his coworkers in the 1960s to which I have already referred. This analogy between blaming and reflex fighting behavior in animals can be illustrated by the case of the common domestic quarrel, though the same principles apply to other more public forms of human quarrel whether between individuals, groups, communities, or countries. The starting point of any such quarrel, I suggest, is an initial act of moral censure or criticism passed by one party on the behavior of the other, which the accused cannot avoid by means of any of the standard excuses allowed in such cases. Finding himself, like the animal in the experiment described by Ulrich & Azrin (1962) in the situation of inescapable aversive stimulation, the accused party responds with a counter attack in which he criticizes or blames his accuser for something which the accuser in turn has done. This counter attack will only succeed, and hence be reinforced, in so far as the original accuser is likewise unable to avoid taking the blame for the action in question and is thus, like the immobi-

lized target bird in the Azrin, Hutchinson & Hake (1966) experiment, visibly hurt by the consequent damage to his self-esteem.

Since the counter accusation constitutes an inescapable aversive stimulus for the original accuser, he in turn counter attacks with another accusation directed towards some other aspect of the original accused's behavior and so the quarrel proceeds, moving further and further away in both time and relevance from the original issue of dispute as each party searches for past misdeeds of the other for which they cannot avoid accepting blame. When the point is reached when neither party can any longer think of any more misdeeds which he can effectively pin on the other, this is often the point at which verbal quarreling is replaced by physical violence.

CONVENTIONS GOVERNING THE ASSIGNMENT AND AVOIDANCE OF BLAME

As a philosopher, what intrigues me about this example is that despite the apparent irrationality of the switches that take place within the quarrel from one topic to another, how very precisely each move in the quarreling game is constrained by the rules or, as I prefer to call them (Place, 1981a), "conventions" which determine what constitutes a successful act of pinning the blame for something on someone else. In order to succeed in blaming someone for doing something the accuser must be able to show that

1. the individual concerned has performed or failed to perform the action in question,
2. he intended to do what he did,
3. he could have decided to do other than he did, if he had wanted to,
4. the consequences of his action or failure to act were harmful to others,
5. he ought to have done other than he did, either
    (i) because he had a specific duty to do so, or
    (ii) because he knew or could have known both
        (a) what the consequences of his action or failure to act would be and
        (b) that those consequences would be harmful to others.

Consequently in appropriate circumstances any of the following assertions, if substantiated and accepted as true by the individual to whom they are directed can succeed as an act of blaming:

1. "*You* did that!"
2. "You did that *deliberately!*"
3. "You didn't *have* to do that!"
4. "That *hurts!*"
5. "You *shouldn't* have done that!"
    (i) "It's *your* job to see that things like that don't happen!"
    (ii) (a) "You could have *known* what would happen if you did that!"
        (b) "You could have *known* that would hurt!"

Likewise blame can be successfully deflected or avoided by successfully denying any one of these assertions thus:

1. "It wasn't *me*!" - "*I* didn't do it!"
2. "I didn't *mean* to do it!"
3. "I couldn't *help* it!"
4. "It didn't do any *harm*!"
5. "I was *perfectly* justified in doing what I did!"
    (i) "It wasn't *my* responsibility!"
    (ii) (a) "I didn't *realize* what would happen!"
        (b) "I didn't *think* it would do any harm!"

All of these counter assertions if substantiated and accepted would serve to deflect the blame from the accused. All of them except the first would constitute *excuses* for his having done what he did or for his having failed to do what he did not do.

FREEDOM AND DETERMINISM

It is in this context that the traditional philosophical disputes about the freedom of the human will need to be understood. What the libertarian is concerned to prevent is the situation in which the wrongdoer is allowed to get away with it by claiming that the social or psychological determination of his actions shows that he could not have done other than he did and that therefore he cannot be held to blame for what he has done.

By the same token, when you consider how easy it is when talking to another person about their past behavior to be taken as blaming them for what they have done, you begin to appreciate the significance of Freud's Principle of Psychic Determinism. In order to ensure that his patients were not deterred from making the kind of self-disclosure which is considered essential to the psychotherapeutic process, it was important to make clear at the outset that he was not going to blame them for anything they might have done in the past, since according to his theory they could not possibly have acted otherwise than they did.

WHY DO WORDS HURT?

One question remains to be answered. How is it that for every normal human being, a mere string of words can have the behavioral properties of an inescapable aversive physical stimulus such as an intense electric shock? We can begin to understand how this can be, I suggest, if we think of the act of moral censure or blame as an act of social rejection - an act whereby the accuser breaks ties of affection, mutual support and cooperation, not only between himself and his victim, but between the accused and the social group to whose accepted standards of moral conduct the accuser is implicitly appealing in making his retrospective moral judgment on the behavior of the accused. Clearly, in the case where the personal relationship between the two people involved is very close, the increase in social distance between the accuser and the accused is sufficient in itself to be highly aversive for the accused without an appeal on the part of the accuser to any wider social group to endorse his condemnation of the accused. In such a case there is no need to appeal to the standards of any social group wider than that constituted by the two people concerned. But since all human cooperation, however large or small the social group involved, depends on the acceptance of the basic moral principle of not pursuing one's own interest to the detriment of those of another member of the same social group, the same moral principles tend to govern the use of moral censure or blame when the effective social group is as small as two individuals, as it does when a much larger group or community is appealed to. What I am suggesting is that the nature and size of the social group to which the accuser implicitly appeals to endorse his condemnation of the accused's behavior affects the nature of the moral principles which are appealed to in such a case very much less than is often supposed. The universality of the moral principles governing human social cooperation is important to the extent that the act of blaming someone only carries conviction as an act of the accuser speaking in the name of the wider social group if it is clear to the accused that the moral principle appealed to by his accuser in condemning his action is one which is universally accepted by a social group to which he belongs and whose good opinion of himself he values and on which he depends for a wide range of both social and material reinforcement.

It is the importance of being able to appeal to a universally recognized set of moral principles in order to ensure the effectiveness of moral judgments in controlling the behavior of others which more than anything else accounts for our insistence on applying the law of the excluded middle, whereby a proposition is either true or false to the case of moral judgments; whereas, in the case of other value judgments such as aesthetic judgments, we are more ready to accept the principle enshrined in the Latin *de gustibus non est disputandum,* the French *Chacun à son gout* and the English *Every man to his taste.* Hence, the temptation of philosophers to assimilate moral judgments to purely factual statements or propositions where the law of the excluded middle properly belongs.

It seems that human beings become so dependent on the approval of other members of the social group to which they belong that an act of social rejection which the social group as a whole might be expected to endorse becomes highly aversive. This phenomenon no doubt has its roots, as has been suggested by the psychoanalysts, in the early experiences of the child in its dependence for all types of reinforcement on the affection of the parent, especially the mother. However, considerations such as those presented above, together with evidence derived from social psychology and Piaget's (1932) study of the development of moral judgments in the child, strongly suggest that, while the parent-child relationship may provide an essential foundation, the experience of dependence on the solidarity of the peer group in later childhood and adolescence is an essential ingredient in the development of what is somewhat pretentiously described as "the moral consciousness of the adult."

MORAL JUDGMENTS AND THE ETHICS OF AVERSIVE CONTROL

One final point before concluding. It will be apparent from what I have already said that I do not hold the practice of modifying human social behavior by means of retrospective moral criticism and blame in very high esteem. It seems to me that, like other more obviously violent methods of aversive control, it is the source of untold human misery and suffering, as anyone with the slightest acquaintance with the guilt feelings of the pathologically

depressed knows only too well. Skinner has consistently maintained that, with a certain amount of ingenuity and expenditure of effort, aversive control of undesirable behavior can always be replaced by a technique in which an incompatible desirable behavior is positively reinforced. He also claims that this method of dealing with the problem is just as, if not more effective, than the aversive alternative. If this is correct and it applies to the social control of behavior by retrospective moral judgments, as much as much as it does to other kinds of aversive control, it follows that a great deal of this misery and suffering could be avoided. And if it can be avoided, then it ought to be.

But what is philosophically interesting about *that* statement is that it is itself a moral judgment, a moral judgment like the moral imperative "judge not that ye be not judged" which is made about the practice of passing negative moral judgments on the behavior of others. And *that* in turn seems to imply a second order moral judgment, based on some kind of utilitarian principle, in terms which a critical moral judgment is passed on the practice of uttering first order moral judgments, or more precisely, on the practice of uttering negative or critical first order moral judgments which are specifically addressed to the individuals on whose behavior the judgment is passed.

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