

# symbolic interaction and reinforcement theory

by  
**Peter A. Remender**

*University of Wisconsin, Oshkosh*

The basic postulates of Symbolic Interaction and Reinforcement theory are stated in this paper. Doing this entails an act of abstraction. Symbolic Interactionism and Reinforcement theory are presented as two ideal types or models that purport to explain human behavior. A contrast is drawn between the two frames of reference generically considered. A comprehensive summary of either perspective is beyond the scope of this document. There is much more that might have been said about either of the two positions that is not covered in this article. This writer has tried to abstract the basic character of the two models.

This writer will outline what he takes to be the major implications of Symbolic Interaction and Reinforcement theory for education. The derivations do not flow directly from these perspectives but represent judgments on the part of this writer.<sup>1</sup> The attempt to formulate consequences of the two orientations is made on the assumption that an approach to education that is explicit, theoretically integrated, and systematic would be better than one that contains numerous implicit assumptions or one that is eclectic in character. If we are to formulate a useful philosophy of education, it is important to make as explicit as possible the assumptions we are making about the learner and the learning process. We need not assume, however, that all who accept a particular paradigm or model will behave in the way that this writer has identified as characteristic of that frame of reference. There are differences within a school of thought as well as between different schools of thought. The construction of these ideal types is an act of abstraction.

Reinforcement theory or stimulus response theory will be identified in terms of four key features.<sup>2</sup> The methodological orientation is that of behaviorism. It is based on the structural principle of associationism and the motivational principle of hedonism. Finally, the orientation assumes a passive organism. It is difficult to judge at what point no further explication is necessary. This writer trusts, however, that some additional elaboration on the defining characteristics of Reinforcement theory will be more fruitful than offensive.

The behaviorist—in his rejection of the subjective procedures of introspective psychology—takes the posi-

1. The implications that are suggested in this analysis are not necessarily logically connected to the perspectives considered. In practice, adherents to particular perspectives tend to focus on different questions. «For the last fifty years the main preoccupation of the Behaviorist school has been the study of certain measurable aspects of the behavior of rats, and the bulk of Behaviorist literature is devoted to that study», Arthur Koestler, *The Ghost in the Machine* (Chicago: Henry Regacy Company, 1967), p. 7.

2. The discussion of the defining features of Reinforcement theory is largely based on Morton Deutsch and Robert M. Krauss, *Theories in Social Psychology* (New York: Basic Books, 1965). See also C. Addison Hickman and Manfred H. Kuhn, *Individuals, Groups and Economic Behavior* (New York: The Dryden Press, 1956).

tion that one should deal only with overt behavior. This emphasis on external observables is indicative of his lack of concern for what goes on inside the organism.<sup>3</sup> Often, behaviorists end up filling in for this lack of information with imputation although they profess to be unconcerned with data that requires complex judgments on the part of the observer.

Associationism means the linking of units by their continuity in time and space. The mentalistic units of classical associationism are rejected by the Reinforcement theorist and the conditioned response is substituted as the basic unit of analysis. Human conceptual abilities are treated as if they were the same as those at the infrahuman level. Thus, the study of human behavior is not crucial since it is held to be possible to extrapolate from the observations of lower animals to the more complex behavior of man. Indeed, Skinner claims to treat himself exactly the way th treats his rats.

Hedonistic psychology is predicated on the idea that the organism seeks pleasure and avoids pain. Reinforcement theorists speak of the contingencies of reinforcement that govern behavior. Rewards or reinforcers are thought to strengthen stimulus-response connections.

The concept of the organism as passive rather than active means that the organism remains in a quiet state unless acted upon.<sup>4</sup> Stimuli are thought to impinge on an organism that is ready to receive impulses from the outside in contradistinction to the idea that stimuli are selected in the process of ongoing activity. The latter position is Symbolic Interactionist.

B. F. Skinner<sup>5</sup> has made the most explicit connection between Reinforcement theory and educational practice. He is a proponent of the teaching machine and the «father» of programmed instruction. Indeed, contemporary education seems to be increasingly taking on a Skinnerian character. Some experts consider him responsible for what they term a revolution in American education. The term «training» seems to best connote what Skinner has in «mind» for us. Is not training synonymous with conditioning? Is then the teacher no more than an animal trainer? Is man no more than an organic machine to be programmed?

3. «Let us limit ourselves to things that can be observed, and formulate laws concerning only those things». John B. Watson, *Behaviorism* (Chicago: The University of Chicago Press, Revised edition, 1930), p. 6.

4. It might be argued that the organism is not passive in operant conditioning in which the response to be conditioned must occur before it can be rewarded or punished. We may note, however, that in «describing the process of teaching by operant conditioning», Professor B. F. Skinner says, «With these techniques a new form of behavior can be shaped as a sculptor shapes a lump of clay». Paul Goodman, *The Community of Scholars* (New York: A Vintage Book, 1964), pp. 172-173.

5. See B. F. Skinner, *Walden II* (New York: Macmillan, 1948; paperback edition, 1962).

Implicit in the answer of the Reinforcement theorist is a definite image of knowledge. Knowledge would mean learned skills or techniques and man would be like an automaton. Knowledge would imply facts devoid of valuation and content devoid of process. This does not mean that values would not be learned. Values can be learned in a mechanistic or stimulus-response fashion and exhibited in conditioned behavior. It is the process of valuation that is not evident in the Reinforcement theorist's formulation. By valuation, we mean a process of creating values and not a process of instilling values.

Programmed instruction is no doubt most efficient in forming stimulus-response connections. Skinner's approach is right if knowledge consists exclusively of techniques, facts, and established content. Skinner is right if we may assume the world to be a closed system in which one might be trained to respond in the most rational manner.

One might argue that the author is thinking about an approach to education that utilized drill and rote memory to inculcate the content—final truths—of the past into subjects who were conceived of as being essentially isolated (a-social) and passive, that is, that the author is referring to traditional education. Indeed, the basic tenets of Reinforcement theory do seem to find implementation in the traditionally oriented school. The critics of traditional education should find the impact of the bureaucratic organization on education rather disturbing since it seems that the style of contemporary education is increasingly coming to approximate the «old» style that they attacked with such vehemence.

Concomitant with the Reinforcement theorist's conception of knowledge is his conception of the educated man. If knowledge is mechanistic (consists of stimulus-response connections), then the educated man is mindless. The Reinforcement theorist finds no use for such expressions as mind. Presumably, the educated man for the Reinforcement theorist is one who has formed at least the minimum number of correct stimulus response bonds. He would operate well in a highly structured situation, but would find himself in serious difficulty in novel situations. He can readily trace old paths but must resort to trial and error when he has no appropriate stimulus-response connection in his repertoire.

The Reinforcement theorist apparently does not find it necessary to address himself to the problem of fostering initiative and creativity. If knowledge consists of stimulus-response connections, how does one go about making sense out of otherwise discrete, fragmented, or disconnected empirical facts? It seems that the Reinforcement theorist would be perfectly content with an inventory of scientific findings.

One might argue that anyone who wants to do his

own thing could undertake a course of independent study and ignore the encyclopedic orientation of an educational system dominated by the principles of Reinforcement theory, if it were not for the fact that the bureaucratically organized educational system has become the almost exclusive source for the certification and legitimation of knowledge. Thus, the learner must prove his qualifications by subjecting himself to a formal education in which only the programmer does any «thinking». Indeed, it is interestingly left in doubt how the Reinforcement theorist explains the programmer! Is the programmer conditioned to write programs? How does one evaluate the programs he writes? The emphasis on overt observables would suggest that the programmer would have to make use of time and motion studies to determine if the subject has learned to perform the task in a most efficient manner. What stimulates the programmer to act?

Perhaps the above will suffice as a very general introduction to Reinforcement theory and its implications for education. Next, the author will explore the basic assumptions and propositions of Symbolic Interactionism.<sup>6</sup> The two orientations as presented in this paper will be seen to be vigorously competing perspectives and the presentation of the Symbolic Interactionist framework would provide the basis for a more complete understanding of the implications of Reinforcement theory for education. This is not meant to imply that there are no similarities between the two orientations or that all virtue is located in one camp and nothing of value is to be found in the other. The clash of ideas is sought, however, at whatever risk there may be that injustice is being done to the compatibility of the perspectives.

Sheldon Stryker<sup>7</sup> has identified four basic assumptions of Symbolic Interaction theory:

1. The symbolic Interactionist holds that human behavior must be explained at its own level of analysis, that is, it is maintained that at each successively higher level of complexity, new elements emerge. The symbol is thought to be the key emergent at the human level. Some interactionists have argued that the symbol is of such critical significance that it is appropriate to think of man as different in kind and not merely in degree as

6. Herbert Blumer coined the term Symbolic Interactionism and is one of the position's foremost proponents. The founding fathers of the orientation generally are considered to be George Herbert Mead, John Dewey, and Charles Horton Cooley. Bernard Meltzer and John Petzas have distinguished between the Chicago and Iowa schools of Symbolic Interactionism! «The Chicago and Iowa Schools of Symbolic Interactionism», in *Human Nature and Collective Behavior*, edited by Tamotsu Shibutani (Englewood Cliffs, New Jersey: Prentice Hall, 1970). This paper fits best in the Chicago School of Symbolic Interactionism.

7. Sheldon Stryker, «Symbolic Interaction as an Approach to Family Research», *Marriage and Family Living*, XXI (May, 1959), pp. 111-119.

compared to the lower animals. The attempt by the Reinforcement theorists to explain human behavior in terms of principles derived from the study of in-frahuman behavior is termed reductionistic and hence invalid. As an anti-reductionist, the Symbolic Interactionist would reject Skinner's book *Verbal Behavior*,<sup>8</sup> which presents no evidence to support Skinner's position except for a rather gross analogy to operant conditioning in pigeons.

2. The basic unit of observation for the Symbolic Interactionist is the social act. Note that the basic unit of analysis for the Reinforcement theorist is the conditioned response. For the Symbolic Interactionist, learning is a social activity involving at least initially interaction with others—having been socialized, the individual may engage in «self» interaction by making indications to himself—while the Reinforcement theorist tends to ignore the social context. The social act takes place because men share meanings. These meanings or definitions are thought to mediate between the stimulus and response.

3. The infant of Homo sapiens is a-social at birth. Some interactionists argue that the infant of Homo sapiens is not born human although it has the potential to become human. Thus, the infant is thought to be plastic—it has «impulses» but its impulses are not canalized.

4. Man is an actor as well as a reactor. The individual selects stimuli in the course of his activity. Consequently, man operates in a social world which he has constructed in the process of interaction. This means that the investigator must find out the individual's definition of the situation.

Manis and Meltzer<sup>9</sup> list the basic theoretical propositions of Symbolic Interaction that are reproduced below:

1. Mind, self, and society are most usefully viewed as processes of human and interhuman conduct.
2. Language is the mechanism for the rise of mind and self.
3. Mind is an importation of the social process, that is, of interaction within the individual.
4. Human beings construct their behavior in the course of its execution, rather than responding mechanically to either external stimuli or such internal «forces» as drives, needs, or motives.
5. Human conduct is carried on primarily by the defining of situations in which one acts.
6. The socialization of the human being both enmeshes him in society and frees him from society. The in-

8. B. F. Skinner, *Verbal Behavior* (New York: Appleton Century Crofts, 1957).

9. Jerome Manis and Bernard Meltzer, *Symbolic Interaction* (Boston: Allyn and Bacon, 1967), p. 495.

dividual with a self is not passive but can employ his self in an interaction which may result in behavior divergent from group definitions.

John Dewey's writings in education serve as an exemplar of the Symbolic Interactionist framework. While the influence of Dewey on this section of the paper is great, this writer does not intend to simply parrot Dewey or his terminology.

The Symbolic Interactionist suggests that it is important to be aware of the difference between infra-human and human behavior. It is important to note, however, that knowing what is unique to man will not provide one with a clear conception of what education ought to be like, that is, the ends of education are not directly derivable from any conception of the nature of man.

Even if we agree that the will to commit suicide is a distinctly human phenomenon, we are not likely to agree that education should prepare men to commit suicide. It seems that we must have made at least some implicit assumptions about what man should make of himself when we formulate our ends for education. We might well endorse the statement that we should make explicit which side we are on, that is, that we ought to announce what our values are.

A «purely» detached position aligns one by default with the opponents of change and may make one liable to the charge that one is guilty of the crime of silence. Neutrality supports the values of the status quo. The Symbolic Interactionist has no answer to the issue of «which values are better» but he at least puts stress on the importance of value definitions in human behavior whereas the Reinforcement theorist has no place for valuation in his exclusive concern for external observables. The imputation of values from action seems to imply the very minded behavior which the Reinforcement theorist has denied.

The trained technician may be prepared to serve any master, but is not the norm that value judgments are to be excluded, itself a value judgment? This means not only that the educator should note the role which utopian and dystopian thought has had in human affairs, but that he should make explicit his own conception of the good. This admonition to be explicit will not solve a conflict of values but it will at least focus our attention on the centrality of valuation. While no hierarchy of values is here established, the necessity of dealing with values as well as facts, and techniques perhaps has been.

An understanding of the unique equipment of man does tell us what we have to work with even though it does not tell us precisely what to do with it. Reinforcement theory has ignored that which makes man a distinctly culture-creating animal. Granted, this does not tell us what kind of culture man should create. Still, the Symbolic Interactionist has drawn out attention to the constructional character of man's actions rather

than assuming a simple release of learned responses when presented with an appropriate stimuli.

The Symbolic Interactionist holds that man engages in a process of definition and re-definition, hence, the outcome of his interaction may be seen as much more indeterminate and dynamic than the direct and automatic response to a stimulus depicted in the conception of Reinforcement theorists. Thus, the Symbolic Interactionist may argue that contemporary education should be problem oriented. Machines can be programmed to do routine tasks. Training individuals to perform mindless activity seems a waste of human resources. One can be conditioned to respond in a highly structured situation but this training does not necessarily foster initiative and creativity in novel situations. If conditioning results in the fixation of responses, it seems likely that this would inhibit novel responses.

If knowledge is built up in the process of interaction, the educator would need to devote more attention to the social context in which learning takes place. Conversely, this would mean that we must stop treating students as isolated individuals who we are expected to act upon in order to inculcate wisdom.

We tend to look at student records as if they truly represented qualities of the individual and simultaneously ignore the social and cultural context in which the actor formed that record. Thus, survival of the survivors passes as survival of the fittest in academia. We might want to know not only that the individual has a superior or inferior record, but how to explain the individual's performance. We need not assume that all have been equally exposed to the same body of material and have been provided with the same opportunity to have learned the vocabulary of the examination.

The Symbolic Interactionist takes a dynamic rather than a static conception of the educated man. The processual orientation of the Symbolic Interactionist contrasts with the Reinforcement theorists emphasis on knowledge as prior to and outside of the learner. The interactionist is concerned with knowledge creation and not merely the inculcation of previously established facts. The dialogue seems to be the educational embodiment of the interactionist's processual orientation. Learners would be expected to participate in a meaningful exchange of ideas and consequently the dialogue would play a much more focal role in contemporary education. The interactionist would reject the situation in which knowledge is said to pass from the teacher's notebook to the student's notebook without passing through the mind of either. The dialogue would seem to provide the vehicle by which the learner and the teacher come to create something quite different from that with which they started. The Reinforcement notion that there is an appropriate response to a given stimulus assumes a closed system. This contrasts with the open

and changing system assumed in interactionist analysis.<sup>10</sup>

One ought not limit the teacher's concern with the dialogue to conversations with others. If thinking is an internalized conversation, the individual may well be involved in the group although he has said nothing. The Reinforcement theorist fails to appreciate the activity that takes place within the facade that he pays exclusive attention to. The Symbolic Interactionist is interested in mind self behavior.

In view of some Symbolic Interactionists, the individual is thought to engage in a continuous flow of self-indications or symbolic notations. The Symbolic Interactionist, is, therefore, concerned with conversations that take place between the individual and himself or between the components (I and Me) of self, that is, he is concerned with minded behavior. It must be pointed out that this aspect of the theory has generated virtually no empirical research, and that this part of the theory may offer no more than a vague blueprint for action of educators.

Certainly, it is much easier to operationalize knowledge so as to demand overt action (including verbalizations) as proof that the individual student is «undergoing» the experience. The Reinforcement theorist would raise the question, «How can we be sure that the individual understands an idea without behavioral feedback?» Yet, it seems possible that the student can be profoundly affected by what is going on without giving the teacher external indications of what is taking place inside the organism.

The stimulus-response bond may be conceived of as an immediate act having a beginning and an end but no middle. It seems that we focus on this category of acts in contemporary education. The delayed act has a middle as well as a beginning and an end. Sometimes this class of actions is termed the reasoned act or the rational act.<sup>11</sup> The interactionist would be especially concerned with acts that have this middle part—which he terms judgment or interpretation—whether the middle is verbalized or not.

The interactionist's emphasis is on reflective activity, while the Reinforcement theorist focuses on reflexive activity. The interactionist would encourage inquiry while the Reinforcement theorist would «kill» inquiry with his training. The trained animal is conditioned to respond. The trained animal does not inquire into the meaning of the response. The distinction here is between the direct act and the delayed act. The interactionist makes use of rewards but not to train an organism to act non-reflectively.

10. For a more detailed discussion of open and closed systems analysis see, James D. Thompson, *Organizations in Action* (New York: McGraw-Hill, 1967), pp. 4-8.

11. See Ellsworth Faris, «The Retrospective Act and Education», *Journal of Educational Sociology*, XIV (October, 1940), pp. 79-91.

The Reinforcement theorist acts toward man as if he were a passive vessel into which content is to be poured so as to program the «organic machine». For the interactionist, man is active and involved in transactions with others and with himself (later identified as minding). Indeed, young children seem to have a rather insatiable propensity to ask questions that seems to be trained out of them as they grow older. It seems that the interactionist might well favor what some psychologists term «organic learning».

The interactionist would attempt to foster creativity. This does not mean that he has an easy-to-follow recipe for creativity. Indeed, it may be easier to suggest what not to do than to prescribe how to foster creativity. If conditioning students inhibits creativity, it would make sense to «progressively reduce the frequency of authoritative intrusion into the learning process». This does *not* mean that there should be no structure. It seems that reducing the dependence of the learner on authority would be an important step in structuring a situation in which the learner would be expected to be creative. It is to a large extent a matter of whether the structure is established prior to the entry of the learner into the situation and has become reified or whether the learner takes part in structuring the situation or restructuring the present arrangement.

The teacher might suggest topics, sources, and outlines that have been well received in the past. A listing of alternative options would provide structure but maintain flexibility. The learner should not be expected to be creative in a vacuum.<sup>12</sup> Students could be encouraged to select their own topics, although the teacher might demand that the student formalize his plans before he begins.

The student would be freed from others as well as implicated with them. He would come to form relatively independent judgments. The student would come to challenge the authority of his teacher and demand evidence for his teacher's conclusions. The teacher, however, needs not assume that any idea is as good as any other idea. The teacher would take part in this conversation among «equals» and defend his ideas with a critical sense of evidence and relevance.

This writer trusts that the effective teacher would be taken into account by his students because of the power of his ideas and not because of the power of his position. Social distance would likely be reduced. The inter actors would not need to be motivated by the Reinforcement theorist's extrinsic rewards or punishments.

12. «One has to be patient with freedom and have as rich an environment as possible available for students so there will be things they can choose to do. One cannot ask pupils to be free or make choices in a vacuum», Herbert Kohl, *The Open Classroom* (New York: A New York Book Review Book, 1969), p. 99.