

Michael and Malott's Dialog on Linguistic Productivity

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This is an informal dialog between Jack Michael and Dick Malott inspired by Malott's commentary (In press) on *Relational Frame Theory: A Post-Skinnerian Account of Human Language and Cognition* (Hayes, Barnes-Holmes, Roche; 2001). Topics range from psychologist Skinner to linguist Hockett and from the Skinner box to verbal behavior (AKA language).

Jack Michael: I admire your efforts (Malott, 2003) in going through the relational-frame book (Hayes, Barnes-Holmes, & Roche; 2001).

Dick Malott: Thanks. Interesting book, but tough sledding.

J: And your analysis in terms of productive symbolic stimulus control seems quite reasonable.

D: Thanks. As you may recall, these issues have been of interest to me ever since I've been at WMU.

J: However, there were two aspects of the paper I found myself disagreeing with. The first was your characterization in the first paragraph of what "we" would reply, etc. I did not see myself in this characterization. I came at the applied area primarily from extensive study of Skinner's (1953) book, *Science and Human Behavior*, not from the rat lab; and I do not remember myself offering such superficial answers to questions like "Why are people crazy?" Skinner's chapter 24, *Psychotherapy*, provides analyses that are much richer than "Like the rat in the Skinner box learns to press the lever."

D: Though I was impressed with chapter 24 when I first read it, later it seemed merely to be a behavioral translation of traditional talk psychotherapy into behavioral terminology, adding little and not being very critical of that traditional "therapeutic" methodology.

J: When I started my career as a college professor at Kansas university, I was frequently asked questions by Freudian and Lewinian grad students about abnormal behavior; and because I knew very little about such behavior I was pretty cautious in my answers. The questioners were already pretty committed to the view that something in the person's history was relevant, although they also considered genetic factors of considerable importance (but less interesting because as clinical psychologists there was little they could do about such factors).

D: Yes, one of Freud's many virtues is that he was not a biological determinist; in fact he was an early environmental determinist.

J: My approach was to attempt a behavioral interpretation of the kinds of environmental factors they considered possibly relevant, or from science and human behavior, to come up with some they had not considered.

I have also always resisted the general notion that there was some essential feature of behavior that would qualify it as human language. Writers like Hockett (1960a & b) are searching for some critical feature that could be used to distinguish "real" human language from various seemingly linguistic behaviors, such as animals might display naturally or as a result of training by humans, the kinds of things you refer to as "pale imitations" of language.

This dialog is a compilation of a series of email exchanges between Michael and me. I've attempted to integrate and sequence the comments in as functional a manner as possible, though occasionally mild, transient sequential awkwardness still occurs. (DM)

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(Incidentally, I am not one of the behavior analysts who is unaware of his so-called brilliant work, but one who found it of little value in our efforts to understand verbal behavior.)

Skinner's definition of verbal behavior as behavior reinforced through the behavior of another person is only intended to identify the topic of his consideration in the book on verbal behavior, and the refinements to the definition at the end of chapter 8 (Skinner, 1992) are only to show that the analysis can be narrowed to "what is traditionally recognized as the verbal field," but not to identify an essential feature. The essential features of the mand can be seen in the behavior of the dog that sits by the door because such behavior has been reinforced by being let out. Such verbal behavior has a relatively small vocabulary, and is certainly not deserving of a 470-page behavior analysis like verbal behavior.

It lacks some of the more interesting aspects of human language, but not some essential feature that is seen in "real human language."

- D:** The barking-doggie example is an interesting and I think deceptive example. Of course, it is functionally the same as the rat pressing the lever in the Skinner box, with the Psy 360 student delivering a drop of water, contingent on that lever press. And so the rat e.g. is just as classifiable as verbal behavior as is the doggie e.g., but the rat e.g. doesn't have the face validity of the doggie e.g., the doggie e.g. carries with it all sorts of implicit baggage that convinces the unwary, because clearly the doggie is trying to communicate to the master, who, indeed, understands what his little doggie is trying to say. In other words, the naive will buy into the argument that the doggie is talking much more quickly than the rat is talking.
- D:** Of course, I don't consider you among the naive, but many (most?) of our behavior analytic colleagues consider the little, non-verbal autistic kid's self-injury behavior and aggression as an attempt to communicate to the trainer that the training task is too difficult, or he wants some attention, which, of course, is the sort of thinking that leads

to facilitated communication. And that's the sort of risk created by Skinner's definition of verbal behavior as behavior reinforced by someone else; from my view, it is simplistic; all behavior analysts lock into that simplistic definition, without attending to his more sophisticated later qualifications or supplements.

- D:** Incidentally, I think one of the major problems with Skinner's initial definition of verbal behavior is that it is structural rather than functional.
- J:** I am bothered to see you support this general traditional approach that is so popular with those who, ever since Darwin, have been looking for some essential human quality.
- D:** I am sorry my writing gave you that impression. My goal is to show that all us animals are brothers, under the skin, that biology is not destiny. Other than our having a soul and a spirit, I think there is no essential human quality, no fundamental difference between us and the other animals (I say this, in spite of the fact that many people might be offended by the notion that their doggie has no soul or spirit, just as they are offended by the notion that their doggie is not trying to communicate to them when he barks at the door, and just as they are offended by the notion that doggie doesn't think.)
- What I am looking for is the essence of language (aka verbal behavior), not the essence of humanness. And I think that essence is linguistic productivity. So nothing would please me more than if some smart experimental analyst would achieve linguistic productivity with a pigeon, even though all the experimental subject would have to work with would be a tiny bird brain.
- J:** In any event, it is your paper; and I cannot effectively impose my opinions on yours.
- D:** Perhaps not, but you sure can get me to spend a lot of pleasant, intellectually stimulating time thinking about the issues you raise, thereby forcing me to clarify my own thinking, even to myself, a frequent service of yours I greatly appreciate.

J: Support this misconception if you wish, and a pox on all your houses.

D: I hope I have convinced you to remove your curse, at least with regard to that misconception.

J: The first point erroneously includes me in a group that had a very superficial behavioral approach, certainly not one that could develop from a careful understanding of Skinner's *Science and Human Behavior*. And I would like to be excluded from that group.

D: I officially exclude you from that group.

D: But I'm afraid the group of behavior analysts that does not have such a sophisticated understanding of Skinner may still be much larger than we'd like, maybe including the majority of behavior analysts. Most are now much more sophisticated about abnormal behavior, thanks to the pioneering work of Ayllon and you and others, but many of the most sophisticated are still littering their work with reifications like "autism," and therefore looking for its causes in bad blood (literally).

J: Here are some comments on your previous comments:

I am not sure how your passage that begins with "the barking-doggie example ..." is related to the point I was making that seeking the essential features of language is a useless endeavor. Of course, the rat's lever pressing qualifies as language just as much as the dog sitting by the door because that behavior has been reinforced by being let out.

D: My point is that one value of seeking the essential features of language is that it allows us to have a higher standard for what constitutes language and thereby removes from consideration trivial examples of operant behavior where another organism happens to deliver the reinforcer, examples such as the barking dog and, perhaps more obviously to some people, examples such as the lever-pressing rat.

Another value of using the higher standard of linguistic productivity is that it might focus research on this more complex behavioral repertoire—the productive rep-

ertoire. That could result in better experimental and applied control over the variables responsible for instilling that highly desirable repertoire.

J: Also, I am not sure I understand your point about the little non-verbal autistic kid's self-injury as an attempt to communicate, etc. Aside from the objectionable mentalistic language it may well be important to determine whether the child is "attempting to communicate with the trainer that the task is too difficult" (that is, the bad behavior is related to a reinforcement history of cessation of the training task) or not so related. Self-injurious or aggressive behavior that occurs because of a reinforcement history unrelated to cessation of the training task is different in an important way from topographically similar behavior that is related to cessation of the training task, and this difference is not unrelated to appropriate treatment.

D: My point is that using terms like "communicate" causes many people, perhaps most people to do the opposite of the functional analysis you suggest and instead to try to verbally communicate back to the kid, to get him to understand that his disruptive behavior is self-defeating, to get him to see the relation of such behavior to his long-term well being—no kidding. We're talking about a culture that insists on using descriptive praise with non-verbal organisms. And I think "communicate" just fuzzes up that whole scene.

J: Regarding your view that one of the major problems with Skinner's initial definition of verbal behavior is that it is structural rather than functional; I have never found the structural vs. functional distinction of any value whatsoever. Catania tried to make the case that linguists and cognitive psychologists were interested in structural questions and behavior analysts were interested in functional questions. I never bought into this notion. Every example of a structural question was ultimately a question of the how behavior is or has been controlled by basic behavioral variables such as the role of unlearned environment—behavior relations, respondent functional relations,

and operant functional relations. Either the behavior of an individual behavior is involved, or the interrelations between or among different behaviors, or the cultural practices of larger groups, but all of it is simply behavior controlled by environmental variables. Whether one wants to consider this a statement that all aspects of behavior are really functional issues or (as I prefer) that the distinction is of no value in our attempt to understand the behavior of individuals or of groups.

D: Yeah, I'll admit the structural vs. functional distinction is a bit trendy, and I hesitated to raise it. But I think the issue is important. And though Jack Michael may be able to reduce all structural issues to functional ones, many people, perhaps most people, can't.

The problem with the structural view is that it causes people, including behavior analysts, to make distinctions they should not make and to fail to make distinctions they should make.

An example of superficial, structural distinctions: "Don't tell me that back-ward mental patient's frequent, disruptive entering of the nurses' station is an operant response, maintained by its consequence, just like the rat's lever press. The woman looks nothing like the rat; her entering the nurses' station looks nothing like the lever press; and the negative rejection by the nurses looks nothing like the rat's drop of water."

An example of superficial, structural similarities: "That back-ward mental patient's hoarding of towels in her room looks like the rats pressing the lever and getting drops of water. So it's time for an EO. To stop the rat's pressing the lever, we can satiate him with water. So to stop the woman's hoarding the towels, we can satiate her with towels; we will fill her room with towels." Though the intervention worked, and though filling the woman's room with towels may appear structurally similar to filling the rat's bottle with water, those two events do not serve the same function. You don't satiate an organism with learned reinforcers; satiation would involve the unlearned reinforcers with which the learned reinforcers were paired, as you, of course, know, but which those controlled

by structural similarities have a hard time grasping.

J: With respect to your paragraph beginning "What I am looking for is the essence of language, not the essence of humanness," it was your search for the essence of language that I was criticizing. I threw in the "humanness" issue simply to link one unprofitable search with another somewhat related unprofitable search.

D: Shame on you. That may be an example of being too controlled by structural similarities.

J: Thanks, Dick, for providing this opportunity for intellectual interaction. It is a shame that we are so busy with other aspects of our job that we do not have time for this kind of activity in small group discussion.

D: Yeah, we tend to have more of an opportunity to talk when we see each other at conferences. And in fact that's halfway the case now, as I am in Florida, presumably preparing my PowerPoint presentation for FABO OBM, when instead I'm having too great a time working through this stuff with you.

So now if you will excuse me, I will get back to my PowerPoint.

REFERENCES

- Hayes, S. C., Barnes-Holmes, D., Roche, B. (2001). *Relational frame theory: A post-Skinnerian account of human language and cognition*. New York: Plenum Press.
- Hockett, C. F. (1960a). Logical considerations in the study of animal communications. In *Animal sounds and communications* (pp. 392-349). Washington, D.C.: American Institute of Biological Science.
- Hockett, C.F. (1960b). The origin of speech. *Scientific American*, 203, 88-96.
- Malott, R. W. (2003). Behavior analysis and linguistic productivity. *The Analysis of Verbal Behavior*, 19, 13-20.
- Skinner, B. F. (1953). *Science and human behavior*. New York: McMillan.
- Skinner, B. F. (1992). *Verbal behavior*. Acton, MA: Copley Publishing Group.