Finding Our Mind in Behavior Analysis – A Review of Rachlin’s The Escape of the Mind

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Few behavioral psychologists tackle difficult conceptual issues, and perhaps even fewer attempt to address them in new ways. At the same time scientific philosophy must not involve absolutes or universals as no such absolutes or universals exist in the world (Kantor, 1953, p. 3). Indeed, sciences are progressive, they evolve and change; the philosophy of science is no different. In this spirit Howard Rachlin’s work represents an alternative to more common behavioral analyses of complex issues in behavior analytic perspective. Deeply concerned that behaviorism is considered to be “dead” to mainstream philosophers and lay people far and wide, Rachlin asks us to reconsider what it means to be altruistic, feel pain, think, be in love, and more. His text, The Escape of the Mind (2014), takes us through ancient history, modern theories, and applied topics with deep conceptual and social relevance.

To be sure, The Escape of the Mind is really the story of Rachlin’s teleological behaviorism, including its foundations and applied implications. Moreover, although this story is comprised of previously published papers, in reading through the text it is clear that the text is much more than that. Content is added, particularly that which links the chapters together, and the chapters themselves are presented in a sequence whereby each seems to build upon or elaborate upon those that preceded it. In this sense, the chapters take the reader on a journey, starting with a consideration of Plato and taking us all the way to a conceptualization of the coherent self in the final chapter. Readers who are familiar with Rachlin’s work might see it in a new, broad, thematic context, whereas those who are unfamiliar with Rachlin’s work are sequentially exposed to its foundation and application. Importantly, readers will surely notice both similarities and differences among Rachlin’s teleological behaviorism and other behaviorisms while reading through Rachlin’s text, and an adequate consideration of all similarities and differences among teleological behaviorism and other behaviorisms is far beyond the scope of this review. My aim is to
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describe Rachlin’s text and highlight its relevance to conceptual issues in behavior analysis.

In what follows I provide an overview of the contents of the text. I have organized the chapters into three sections for the purposes of the review: 1) The Journey to the Private Mind (Ch. 1-4), 2) Searching for Our Mind in Our Heads (Ch. 5-6), and 3) Finding Our Mind in Our Temporally Extended Context (Ch. 7-11). After providing an overview of the text I will conclude by commenting on some conceptual issues highlighted by Rachlin’s work.

The Journey to the Private Mind

The first four chapters of the text describe how the mind, as much of the lay culture refers to it today, came to be. That is, the first four chapters tell the story of how we began to refer to the mind as something that is both within and private to the individual. The first chapter describes Plato’s allegory of the cave and its implications for understanding the mind. Rachlin’s consideration of Plato emphasizes that it is experience that leads us to knowledge, and that knowledge is best considered as something that exists in the overt world. For example, that our understanding of a chair, while abstract, is an abstraction that exists in the world of nature – it is overt and public. The implication of this is that there is no place within us where knowledge exists that is distinguished from our overt behavior. Similarly, then, the mind and soul also do not exist somewhere within the organism; they too are wholly observable. To be clear, this stands in contrast to lay conceptualizations of the mind and soul, where the mind and soul are considered private and within. Interestingly, Rachlin notes that Plato is often assumed to have been the founder of the mind, whereas his ideas are at odds with popular conceptualizations of the mind in lay culture.

Rachlin next considers the work of Aristotle, specifically one important aspect of Aristotle’s work, the relationship between the mind and the body. In considering this, Rachlin highlights Aristotle’s distinction between efficient and final causes, a distinction that is central to teleological behaviorism. Importantly, Rachlin emphasizes that in the efficient view causes come before effects, whereas in the final view causes come after effects (hence their being considered teleological). As Rachlin describes, a consideration of final causes leads to a consideration of why something (in this case behavior) is happening, whereas the more common search for efficient causes focuses more on how something is happening. Indeed, the emphasis on why behavior is happening rather than how behavior is happening is fundamental to all forms of behaviorism.

The topics of hearing and imagining are addressed and highlight the essence of Rachlin’s perspective. In these examples Rachlin is sure to avoid dismissing internal mechanisms (efficient causes), but at the same time underscores that internal mechanisms are not to be assumed to constitute psychological analyses themselves. That is, those internal mechanisms don’t explain the psychological difference between two individuals, one who hears and one who doesn’t, one
who imagines and one who doesn’t. The psychological difference between these two individuals can only be understood by considering their overt behavior over time.

St. Augustine is the focus of Chapter 3. Rachlin notes that both St. Augustine and Plato wanted to live the “good life,” and this required knowing the truth and having knowledge. Remember, though, that to Plato knowledge was about interacting with and increasingly understanding the world (i.e., the outside world). By contrast, St. Augustine thought the truth was within the individual. More plainly, for Plato the journey towards enlightenment was a journey outward, whereas for St. Augustine it was a journey inward. Following from this, to St. Augustine knowledge and wisdom did not involve a new view of the same thing, but rather, the viewing of an entirely different thing, something internal. St. Augustine did not suggest that knowledge is personal and private, however. That is, what we see on the inside is not something that is only available to us, but rather, it is the truth, available to all who are willing to seek it.

Rachlin considers Descarte in the final step towards the mind as we know it in common culture. While St. Augustine believed that the mind was internal but available to all who were willing to seek it, Descarte postulated that the mind was both internal and private. Interestingly, Descarte’s conceptualization of the mind had no contact with the outside world. Rather, the nervous system of the organism contacts the outside world, which in turn activates the ideas of the mind. The ideas of the mind were assumed to be placed there by God, however, and they are either activated by the nervous system or not. As Rachlin describes, Descarte’s work seems to be especially influenced by the socio-political circumstances and religious movements of the time. To be clear, it was Descarte, and not Plato, who postulated that the mind is both internal and private.

The first four chapters of the text involve a progression, a road to common conceptualizations of the mind in popular culture. They also provide a foundation for an important distinction in Rachlin’s teleological behaviorism, between efficient and final causes. The idea of the mind being within us has evolved, though, to the consideration of the mind being housed by or otherwise synonymous with the brain and related neurological happenings. The next two chapters of Rachlin’s text specifically address the topics of neurology in our understanding of the mind.

Is Our Mind in Our Head?

Chapter 5 considers neural identity theories, including both historical and more recent approaches. The Law of Specific Nerve Energies (LOSNE) is given particular attention. LOSNE purports that it is not stimuli in the world that are experienced, but rather, that we experience nerves that stimulate particular areas of the brain. What the mind does with this stimulation, however, is another story. Concerned with these and related ideas, Rachlin asks us if there is in fact an actual end point, within the organism, at which the experience of a stimulus in the environment ends. Addressing this specifically Rachlin (p. 49) states, “There
is no place in the nervous system where the incoming stimulus stops. Sensory stimulation in its normal form runs right through the brain and out the other side, so to speak, without encountering anything identifiable as a sensation.” In considering LOSNE and related theories, Rachlin argues that the difference between someone who experiences a stimulus and someone who does not has nothing to do with their internal neurology, but rather with their overt behavior. Rachlin is again careful not to dismiss the fact that things are obviously happening within the organism, though at the same time he questions the utility of this information in efforts to understand behavior. The following is a quote from the chapter that summarizes Rachlin’s perspective on this topic:

Is your mind private to you? Why is it that only you have your particular set of beliefs, only you remember the things that you remember? Is it because you are carrying around a unique neural state, or because only you have been exposed to the particular set of events unique to you – your particular path through the physical and social environment? The answer, obviously, is “both.” But your particular path is your particular psychology and your particular neural state is your particular neurology. (p. 49).

Rachlin finishes this chapter providing analyses of pain and pleasure, highlighting again how it is extended patterns of overt behavior that provide us with psychological analyses of these topics (see p. 58).

Chapter 6 begins by distinguishing cognitive theories from behavioral theories of behavior. Much of this content will be familiar to behavior analysts already committed to the value of examining the influence of the environmental context on behavior. While noting many areas of success with the general behavioral approach, Rachlin considers the act of a smoker refusing a single cigarette to highlight the potential limitations of the common reinforcement model. Specifically, Rachlin considers that the act of a smoker refusing a cigarette does not appear to have a clear reinforcer; the reinforcer for refusing a cigarette is not experienced until a pattern of refusing cigarettes is established. As Rachlin notes, these sorts of examples might lead many to revert back to cognitive ways of thinking. For example, to suggest that one’s beliefs and desires are what determine their behavior, and therefore that it is those beliefs and desires that should be the targets of therapeutic efforts.

The bulk of Chapter 6 considers the brain more directly. Here, Rachlin considers three recent works on the brain, that of Noë (2009), Melser (2004), and Clark (1998). As Rachlin notes, all of these authors underscore that the mind is not adequately accounted for by the brain. In considering these works in some detail, Rachlin provides us with many examples of interesting issues that question the possibilities of what we can learn from understanding the workings of the brain. Although all of the perspectives considered question the value of the brain in different ways and highlight the need for a consideration of the context, none of the authors take us all the way in Rachlin’s perspective. It seems possible, as suggested by Rachlin, that this is because no perspective seriously considers the possibility of a behavioral solution. Rachlin’s consideration of contemporary work from outside the field of behavior analysis is especially noteworthy, and is
presented in an interesting and thought-provoking manner. The remaining four chapters apply Rachlin’s perspective to a range of topics, and they are considered in the following section.

**Finding Our Mind in Our Temporally Extended Context**

Chapter 7 considers the evolution of altruism and self-control, and both of these topics are ripe with implications for teleological behaviorism. While considering the general concepts of evolution, including behavioral evolution and reinforcement processes, Rachlin again questions the extent to which common molecular reinforcement processes can account for self-controlled and altruistic behavior. Consistent with the example above, Rachlin considers an alcoholic refusing a drink - the immediate reinforcer for doing so is not clear. In fact, refusing a drink might actually be rather painful for an alcoholic. By contrast, it is very clear what reinforces a particular lack of self-control. Rachlin again highlights that it is in these situations that the cause for the behavior tends to be placed within the individual; it is after all, self-controlled behavior. Of course, Rachlin believes that it is not the self that controls self-controlled behavior, but rather that it is the evolution of patterns of behavior over the course of an individual’s lifetime. Tying this to teleological behaviorism more broadly, teleological behaviorism doesn’t look deeper within the organism for answers to difficult questions, but rather, pursues a more thorough analysis of the extended context. A similar analysis is made of altruism; by definition instances of altruistic behavior seem especially puzzling. Indeed, analyzing how patterns of behavior may be selected over time, as opposed to instances of behavior in moments, seems to be especially helpful in understanding both self-control and altruism.

Chapter 8 considers research on self-control and altruism. Rachlin highlights the distinction between making a sacrifice for one’s self, as in self-control, and making a sacrifice for others, as in altruistic acts. Although much of this chapter is related to the previous chapter, the description of the extended self and related research is particularly interesting. Specifically, Rachlin describes research that indicates how social distance influences cooperation. Perhaps not surprisingly, Rachlin’s research shows that we are more likely to cooperate with people that we feel close to. Conceptually, Rachlin uses these findings to emphasize that individuals are not merely their skins, our self does not merely consist of our bodies. Rather, our self consists of our context, which includes other people. This conceptualization of the self underscores how we may learn to act in ways that are typically considered self-controlled, as well as in ways which are considered to be altruistic. Rachlin concludes the chapter by considering the topic of free will, and what it means to be free. To Rachlin, freedom involves being free from the particulars of moment-to-moment circumstances, and being controlled more and more by the molar relations among patterns of behavior and reinforcers in
the environment. As can be seen from these brief examples, there are many interesting conceptual implications of Rachlin’s perspective.

Chapter 9 extends Rachlin’s perspective to consciousness and related topics, especially introspection. Here Rachlin again critiques neurological theories as confusing efficient causes with final causes. Taking this a step further, Rachlin also considers the topic of covert behavior in radical behaviorism. Specifically, Rachlin questions where covert behavior occurs (apparently in the space between neural happenings and overt behavior?). In comparing neurological theories, covert behavioral theories, and teleological behaviorism Rachlin notes that both neural and covert identity theories encourage one to look further and further inward, whereas teleological behaviorism encourages one to look further and further outward, into the temporally extended context. In the end, in considering the value of introspection, Rachlin considers introspection to be valuable as a means of examining past patterns of behavior which can be useful in predicting future behavior. In other words, reflecting upon our larger patterns of behavior can help us to better understand our behavior, identify areas for intervention (also see chapter 11), and predict future actions. The entire mind-body problem is dismissed in conceptualizing introspection in this way, offering another fresh appraisal on a long-standing difficult conceptual topic.

IBM’s computer Watson is considered in Chapter 10. Although this might seem trivial at first, the topic is rather heavy and asks one to consider exactly what it means for an organism to be human. In considering the topic, Rachlin is clear to acknowledge that Watson, in its current form, is obviously not human. Still, the question remains as to what would make Watson human. Rachlin asks us to consider the idea that being human involves behaving as humans behave. In pursuing this Rachlin considers what it means to feel pain and be in love, among other things. Rachlin asks us to consider that it is not what’s inside us that makes us human, that defines being in love or in pain, but rather something external, our extended patterns of behavior. More, Rachlin asks us to consider the extent to which the mechanism, the internal stuff, even matters. One is left thinking that it might not matter as much as we thought.

The final chapter of the text addresses the development of a coherent self and living a coherent life. Consistent with the perspective advocated for throughout the text, Rachlin describes the self not as a thing inside a person, but rather as outside a person, as their extended patterns of behavior. Then, an incoherent self is conceptualized as patterns that do not seem to overlap, patterns where there are inconsistencies or contradictions. In describing this phenomenon Rachlin uses interesting examples where the same person could behave in different ways in the presence of different discriminative stimuli (e.g., in the presence of an old friend compared to one’s spouse). Problems emerge when there is confusion among discriminative stimuli, and Rachlin proposes that the development of meta-discriminative stimuli might help to reconcile potentially incoherent repertoires. Rachlin extends this to the area of psychotherapy and points to the importance of the therapist identifying incoherent repertoires and to the goal of therapy being the development of coherence.
Although I have certainly not provided a complete overview of the content of Rachlin’s text, I hope I have provided a glimpse into it and a taste for it’s broad implications. Rachlin’s work is conceptually interesting, and related to several important issues in behavioral theory and philosophy. In this final section I consider some of the conceptual implications of Rachlin’s work.

Conceptual Issues

Rachlin’s teleological behaviorism relates to several long-standing areas of controversy in behavior analysis, areas that continue to be subjects of discussion and debate (e.g., Burgos, 2009; Hayes, 2013; Marr, 2013). One of the most central issues that Rachlin’s analysis pertains to is B. F. Skinner’s analysis of private events and the definition of behavior more generally. From Rachlin’s perspective the extent to which behavior is unavailable for observation pertains not to it’s private nature, but to the observer’s history with respect to the individual being observed. That is, if the observer does not have an extended history of observing the organism’s behavior, over time, their behavior is likely to be rather puzzling to an observer. As a consequence of this, their behavior might perhaps be assumed to reside within the organism (e.g., cognitively, neurologically, covertly). As Rachlin highlights, in most circumstances there are no other people that have more exposure to our own behavior than ourselves, and it is only in this regard that we have a unique relationship to our own behavior. At the same time, Rachlin also acknowledges that there might be people who have observed your behavior more carefully and for a longer period of time than you have. In this case, it is possible that someone else might be in a better position to understand and predict your behavior (see pp. 148-149). Whereas Rachlin’s perspective on this topic is unique, it is related to other perspectives that might also be considered to be alternatives to more common behavioral perspectives (see Fryling & Hayes, 2015).

Rachlin carefully balances the acknowledgement of the obvious participation of biological and neurological happenings while at the same time questioning their importance to a behavioral analysis. As Rachlin emphasizes throughout his text, it isn’t the mechanism but rather the larger behavioral pattern that is of importance. In other words, for behavior science final causes are more helpful than efficient causes. Though taking a different journey, Rachlin’s analysis seems to be somewhat similar to that of J. R. Kantor’s interbehaviorism. Interbehaviorists have long been concerned with psychological events being assumed to be biological events. In other words, interbehaviorists are concerned with reductionism, in this case the reduction of psychological events to biological events (Observer, 1969; also see Hayes & Fryling, 2009). Rachlin arrives at a similar conclusion through his distinction between efficient and final causes.

Finally, a central concept in Rachlin’s analysis is that of time. Whereas Rachlin advocates for considering behavior as extended in time, for a molar perspective, the fact remains that behavior does indeed occur in moments, and moments are all that exist (Hayes, 1992). Given this, Rachlin’s analysis could be
bolstered by carefully considering how the past and future come to operate in the present. The extent to which the past and present are operating now is a product of observing stimulus relations over time, and, as a consequence, of substitute stimulation. An additional step in Rachlin’s analysis, involving stimulus substitution (or transformation of stimulus function; e.g., Dymond & Rehfeldt, 2000), would allow Rachlin to explain how the past and future operate now; that is, how molar patterns of behavior operate in a moment to moment basis. This issue is not without applied implications. For example, mindfulness-based interventions are becoming increasingly popular in intervention efforts. Indeed, such interventions are likely to be beneficial, at least in part, because they strengthen some stimulus-stimulus relations, and reduce the impact of other stimulus-stimulus relations. A consideration of this is far beyond the scope of this review, but speaks to the relevance of the topics considered (also see Fryling & Hayes, 2014). These sorts of processes also seem to be at play when Rachlin speculates about the possible positive effects of introspection. Here, it seems that introspection might involve the deliberate strengthening of stimulus-stimulus relations such that the past more clearly operates in the present, and that one is more deliberately oriented to the constructed future. Again, as the past and future only exist as constructs their impact on the present must be accounted for by substitution processes.

Conclusion

In the end, Rachlin’s text, *The Escape of the Mind*, is really a story about finding the mind in behavior analysis. It is a story of reconceptualizing mentalistic terms, private events, and complex behavior more broadly. Our mind is surely not some mystical entity within us, and behavior analysts far and wide are familiar with dismissing these sort of dualistic ideas. To Rachlin, our mind is out in the open for all to potentially see. It is our behavior extended over time. Rachlin’s approach, while surely unconventional to those committed to more common ways of thinking, is interesting and thought provoking and warrants serious attention from behavior analysts interested in philosophy, theory, and social issues. Still, as Rachlin’s analysis is a departure from more common ways of thinking in behavior analysis, it likely suffers as many alternatives do. Alternatives are often considered to be awkward and can difficult to understand, which can make them easy to dismiss (see Kantor, 1953, p. 7). *The Escape of the Mind*, in being a compilation of previously published papers, offers some support in this regard. The reader is taken through the early foundations of the position, to the consideration of modern neurological theories, and to many important conceptual and social implications. There is enough reiteration of Rachlin’s ideas throughout that a reader is given a chance to actually understand them, and perhaps reconsider some of their own assumptions about behavior.
References
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