

## ARE THOUGHTS PRIVATE?

*¿LOS PENSAMIENTOS SON PRIVADOS?*

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### Abstract

Based on the radical behaviorism of B. F. Skinner, behavior analysts largely assume a dichotomy between public and private behavior. Thoughts, for example, are assumed to be something that occurs within the skin of the individual. This paper presents an interbehavioral alternative to this dichotomy. We conclude that thoughts are not private, but, instead, like all behavior, consist of interactions taking place in the only place they could - the public domain, the natural world. Implications of adopting this analysis for the science of behavior are considered.

*Keywords:* interbehavioral psychology, private events, radical behaviorism, stimulus substitution, thoughts

### Resumen

Basados en el conductismo radical de B. F. Skinner, los analistas de la conducta asumen una dicotomía entre la conducta pública y la privada. Los pensamientos, por ejemplo, se asumen como algo que ocurre dentro de la piel del individuo. El presente trabajo presenta una alternativa interconductual a esta dicotomía. Concluimos que los pensamientos no son privados, sino que como toda la conducta, consisten de interacciones que tienen lugar en el único lugar que es posible- el dominio público,

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el mundo natural. Se consideran las implicaciones de adoptar este análisis para la ciencia de la conducta .

*Palabras clave:* psicología interconductual, eventos privados, conductismo radical, sustitución de estímulos, pensamientos

Much has been said about private events within the analysis of behavior. Thinking is an obvious example of behavior that sometimes is assumed to be private or covert in nature (e.g., Skinner, 1953, 1957). Indeed, Skinner's perspective tends to dominate behavioral discussions of private events. The current paper addresses the question "Are thoughts private?", and in doing so, conceptualizes the observation of thoughts by providing an alternative answer to the question as to the location of thoughts and their assumed status as private events. We do so because there are few behavioral descriptions of alternatives to the public-private dichotomy, and because this topic raises important conceptual issues. Moreover, such an analysis may aid in interpreting common applied practices, such as those involved in therapeutic interactions.

### **Private Events in Behavior Analysis**

In describing the need for an analysis of private events, Skinner proposed that: "With respect to each individual, in other words, a small part of the universe is private" (1953, p. 257). Moreover, from Skinner's perspective, overlooking private events, such as covert verbal behavior (e.g., thinking), would amount to an incomplete analysis of behavior (Skinner, 1957, p. 434). Many behavior analysts embrace Skinner's assertion that there are private behavioral events, which are different from mental events, and which can only be observed by the individual experiencing them (e.g., Marr, 2011; Moore, 2009; Palmer, 2009, 2011). In fact, this is how behavior analysts conceptualize much of the behavior that fascinates mainstream psychology (e.g., memory, imagining). The proposition that behavioral events may occur within the individual is central to Skinner's analysis of private events (e.g., Skinner, 1953, p. 242, 257, 1974, pp. 236-237; also see Hayes & Fryling, 2009).

That private events always seem to involve inferences, which add little if anything to our understanding of behavior, has troubled some (e.g., Baum, 2011). In fact, some have considered the Skinnerian notion of private events to be derived from the same logic as all dualistic constructs. As Baum (2011, p. 191) noted, "A contradiction arises because inferred private events produce no less mysterious an ontological status than inferred mental events." Related to these concerns, when a molar perspective is considered, inferences about private events no longer seem necessary (see Baum, 2011; Rachlin, 1988, 1995). In other words, when analyses of behavior are no longer limited to moment-to-moment, molecular analyses, situations in which private events

are often inferred don't seem to arise (see Rachlin, 2013, pp. 212-213). Observer commented on this issue specifically when he stated "Psychological privacy is not derived from observations of the behavior of persons" (1981, p. 103).

Both Baum (2011) and Rachlin (2013) distinguish private events that are actually public, but not yet or currently being observed (e.g., Baum, 2011, pp. 187-188; Rachlin, 2003, "Privacy A"), from those that are not observable in principle (Rachlin's "Privacy B"). Private events that are observable in principle (Privacy A) are not actually private, though. They are simply events that are not currently being observed. Baum suggested that Privacy A events are merely a practical problem (2011). However, private events that are not observable, even in principle (Privacy B), are not events whatsoever (e.g., "covert thinking"). In other words, events that cannot be observed, even in principle, are not events at all; they are constructs derived from mentalistic folklore.<sup>1</sup> Still, some psychological events, such as thoughts, are difficult to conceptualize with common behavior-analytic concepts. Furthermore, pervasive cultural ideas often lead to thoughts being assumed to obviously exist within the individual. This leads to the analysis of thoughts, and the consideration of the question of whether thoughts are private. First, we will provide a brief overview of the features of interbehavioral psychology that are the basis of our analysis of thoughts.

### Interbehavioral Foundations

Interbehavioral psychologists conceptualize the subject matter of psychology as a psychological *event* (PE), or interbehavioral field (Kantor, 1958).<sup>2</sup> These events consist of reciprocal relations, functions, between stimulation and responding ( $Sf \leftarrow \rightarrow Rf$ ). Moreover, functions involving stimulation and responding participate in fields with setting factors (*st*), interbehavioral history (*hi*), and media of contact (*md*), and are always unique happenings (*k*). Kantor (1958, p. 14) has represented the psychological event by the following formula, with *C* representing the integrated nature of the psychological event:  $PE = C(k, sf, rf, st, hi, md)$ . As such, none of the participating factors is more or less important, influential, dependent or independent than any other, and manipulating any one of the factors amounts to changing the entire event (see Fryling & Hayes, 2011). Of particular relevance to our current discussion are the constructs of stimulation and responding.

Interbehaviorists explicitly distinguish stimulus objects and stimulus functions (i.e., psychological stimulation). Conceptually, this distinction emphasizes how a particular stimulus object (e.g., a picture, the ocean, an individual, or song), could have the

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<sup>1</sup> See Kantor (1957).

<sup>2</sup> The terms psychological event and interbehavioral field are used synonymously.

psychological functions of another stimulus object, even if that other stimulus object is no longer physically present. This outcome, called *stimulus substitution* (e.g., Kantor, 1924, pp. 50-51), depends on an organism's history of responding with respect to relations among various factors (e.g., relations between the ocean and a person). Given this history, at a later time an individual may interact with a particular stimulus object, for example a particular location on the beach, and think about (e.g., visualize, hear) someone they were there with in the past. Moreover, if a particular conversation had taken place during that past interaction, the individual might think about the conversation. In other words, the particular location on the beach substitutes for the individual and conversation, both of which are physically absent. Of course, although stimuli can develop a wide range of substitute stimulus functions, stimulus functions participate in complex multi-factored fields. In other words, particular psychological functions are actualized (or not) within unique contextual circumstances.<sup>3</sup>

Similarly, responding, as a psychological function, is distinguished from the responding organism. Thus, while it is always the whole organism responding (Kantor, 1958), organismic properties of the individual do not define such responding. In interbehavioral terms when one is stimulated by a substitute stimulus object, they are simultaneously responding with respect to substitute stimulation (Kantor, 1924, p. 295).<sup>4</sup> For example, responding with respect to a mug of coffee by picking it up and drinking from it is different than responding with respect to it by seeing the individual who gave you the mug as a gift, and perhaps thinking about that person more generally. The latter responses (seeing the individual and thinking about them) are considered implicit (Kantor, 1924) as they occur in relation to substitute stimulation. Implicit responses are not determined by the physical properties of stimulus objects, and are not considered to "operate directly upon objects or events" (Kantor, 1924, p. 295). Similarly, we may sit on a small car seat in a sports car, and our behavior with respect to the car seat is determined by the object properties of the seat; it is not implicit. Alternatively, we may think about the last time we were in a small car seat in a sports car, and see the car, the person we were with, hear them talk, remember the music playing, the location traveled to, and more, and all of these responses are implicit (i.e., they are not determined by the physical properties of the car). Importantly, implicit responses are not covert or private, however, they occur in the public environment, the only environment (more on this below). Although all stimuli can develop substitute stimulus functions, pertinent to our analysis of thoughts, words

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<sup>3</sup> This is not to imply that the setting *causes* stimuli to have particular functions (see Hayes & Fryling, 2014).

<sup>4</sup> Of note, it is somewhat difficult to distinguish stimulation from responding; this makes sense to an interbehaviorist as stimulation and responding are actually one happening ( $Sf \leftarrow Rf$ ), and only distinguished for analytical purposes.

(spoken or written) can be associated with anything, anywhere, and are therefore especially likely to develop substitute stimulus functions and participate in the substitute stimulus functions of other stimulus objects (Parrott, 1984). Put differently, words are especially likely to develop the stimulus functions of objects, and objects are especially likely to develop the stimulus functions of words.

The interbehavioral distinction between stimulus objects and stimulus functions, and the outcome of stimulus substitution, allow conceptualization of a range of behavior, including reminiscing, seeing, hearing, feeling and more, all of which happen in the absence of the actual things seen, heard, and felt. Psychological events do not consist merely of simple interactions between stimuli and responses; relations of stimulation and responding are historical in nature and often involve substitute stimulation and implicit responding.

### **Are Thoughts Private?**

The issues discussed above have implications for answering the question "Are thoughts private?" First, we must be clear that, from the interbehavioral perspective, thoughts aren't "things." Rather, they are functional relations involving substitute stimulation and implicit responding. Therefore, although one's thoughts are often assumed to be one's own, and within them, the processes described above offer an alternative way to answering the question of whether thoughts are private. If stimulus events in the environment develop substitute stimulus functions by virtue of historical responding with respect to relations among various factors, then stimulus objects in the current environment likely have substitute stimulus functions, especially word functions, which stimulate implicit responses. These interactions may be considered thoughts. Put more plainly, these interactions *are* thoughts. The implication of this is that thoughts, like all behavior, occur in the public domain as relations among stimulation and responding. What distinguishes this behavior from other behavior is its involvement of substitute stimulus functions and reciprocal implicit responding.

For example, upon interacting with an old friend an individual might engage in a number of thoughts related to their previous experiences with that individual. One might, for example, say, "I remember when we... ." In this case, the individual substitutes for one's experiences with them and, psychologically speaking, *is* those experiences. Thus, when one interacts with this person, they are interacting with their experiences with respect to this person, and again, these interactions may be considered thoughts. Thus, thoughts as conceptualized here are occurring in the public domain, so there is nothing mysterious or private about them. Of course, relations between substitute stimulation and implicit responding are not always experienced; the extent to which such interactions are experienced depends on an individual's re-

lational history. For example, one isn't likely to experience thoughts about a particular event (e.g., a concert) if one responded to few relations during the event (e.g., as when one is preoccupied with something else during the concert), and when there is little if any discussion about the event during or after it. Given the interbehavioral foundations described above, if there is any difficulty in observing thoughts it is not a matter of those thoughts being *private* in nature, but in their involving substitute stimulus functions (Hayes, 1994; Hayes & Fryling, 2009; Parrott, 1983, 1986), which may not be experienced by observers with different relational histories. In other words, the observation of thoughts can be difficult because those thoughts, while certainly public, are substitutional. It is the type of stimulation (i.e., substitutional in nature; involving factors not physically present), and the implicit nature of the responses that can present observational difficulties.

The difference between observed and unobserved thoughts may be more easily understood when one considers observing another's thoughts. First, conceptually speaking (1) it is more appropriate to speak of thoughts that are experienced (observed) and those that aren't (unobserved), and (2) thoughts aren't actual "things." In the case of experiencing someone else's thoughts, given a particular relational history with another individual, more and more of their thoughts are experienced by the observer. Observers respond with respect to relations between life events, individual behavior and more, and over time they thus may experience what another person is thinking.<sup>5</sup> Initially, an individual may only experience some of another person's thoughts, but over time, and given a more elaborate or intimate history, they may experience more and more (see DeBernardis, Hayes, & Fryling, 2014). Some individuals seem to avoid these sorts of relationships, they prefer that some of their thoughts remain "hidden" or "private." This cannot happen if too elaborate or too intimate of a history develops, as substitute stimulus functions become more and more common between two people, whereby one experiences more and more of what the other is thinking. As this process unfolds, the observer isn't getting to know anything *inside* or *hidden* within the individual, they are developing a relational history; substitute stimulus functions are developing. The more elaborate the history, the more similar the interactions, the thoughts, might be.<sup>6</sup> Again, to be clear, it is stimulus functions that evolve; individuals do not get to know another person's inner thoughts, as their thoughts are not within them.

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<sup>5</sup> One way of measuring the extent to which one's thoughts are observed would be to measure the extent to which an observer can predict someone else's behavior, or to respond as though they were that person on some task. Alternatively, the extent to which an individual can identify what another person is thinking could be assessed by asking the individual what the other person is thinking directly.

<sup>6</sup> It is true that one's relational history can never completely overlap with someone else's, however. Thus, we are unlikely to experience the exact details of everything another person is thinking. The point is that this has nothing to do with thoughts being private in nature, it has to do with the observational history and development of substitute stimulus functions.

We have attempted to answer the question “Are thoughts private?” From an inter-behavioral perspective, thoughts are public interactions in the stimulating environment, not things inside of us. No one experiences their thoughts *inside themselves*; thoughts don’t actually exist in one’s head, as is commonly assumed. Moreover, one’s thoughts are not uniquely their own, they are the thoughts of others as well, given the proper relational history. Of course, individual histories can never *completely overlap*, and so the thoughts one experiences can never be *exactly* the same as the thoughts another person experiences with respect to them. Again, this doesn’t make thoughts private or within anyone, though. All thoughts, and all behavior, exist in the public domain, *the only domain* (also see Hayes, 1997).

### **Implications for Conceptualizing Therapeutic Interactions**

The present analysis has a number of implications for the conceptualization of therapeutic interactions and interventions. Primarily, it offers a means of conceptualizing therapist-client interactions without appealing to events within the individual. As a therapist becomes familiar with a client’s concerns, including their thoughts, they develop a relational history with the client. This largely involves interacting with client descriptions of their concerns, including their thoughts with respect to those descriptions. Other therapeutic interactions involve various exercises, as when a therapist asks a client to complete an activity or task, either in front of the therapist or outside of the session to be discussed further at another time. In each of these situations, though, it is a relational history that is developing. As the therapist develops this relational history, they begin to experience the thoughts of their clients while interacting with them, and some of these skills are likely related to what is often considered *perspective-taking*.

Relational histories require attention, though. That is, a therapist (or any individual for that matter) will not simply develop a relational history with another person by being around that person; they must respond with respect to the context the in which the individual is participating. This is related to our previous analysis of the observational learning literature (Fryling, Johnston, & Hayes, 2011), which suggests that learning from observation requires interaction with what is observed (again, what is commonly called attention). Thus, it seems plausible that interactions among two individuals where both are interacting with the context are more likely to be beneficial towards understanding another’s thoughts and/or “perspective” (of course, this requires investigation). Similarly, one might be instructed to interact with their own context more deliberately, as when one is instructed to be “mindful” of their experiences, journal about their experiences, and other similar exercises. In all of these cases it is the relational history that is developing; thought relations are developing.

This analysis can also lend itself to a consideration of one avoiding certain thoughts and situations in their life. As described above, words are especially likely to develop substitute stimulus functions, as well as to participate in the substitute stimulus functions of other objects. Given this, one might experience thoughts when interacting with objects, and if those thoughts have aversive properties, the objects are also aversive. Things become “bad”, for example, and thoughts related to those things do as well, and this process goes both ways. As thought-thing relations become more elaborate, more and more stimuli become aversive and more need to be avoided. As such, it is common for psychological therapists to recommend exposure to those stimuli, as a means of changing their relational history and therefore their stimulus properties. Consistent with the present analysis, though, when individuals avoid thoughts they avoid public things; there isn’t something inside of them that they are avoiding.<sup>7</sup>

### Conclusions

A psychological analysis of thoughts requires a consideration of history, stimulus substitution, and implicit responding. Thus, while public in nature, thoughts might be considered distinct from interactions that do not involve substitution. This analysis also requires a consideration of the subject matter of behavior analysis more generally. We already know what’s inside of us; organs, veins, and other things that other sciences are better equipped to study. As *psychological events*, our thoughts aren’t hiding inside us, they are occurring right here in the public domain, the only place they could be occurring.

There are some similarities between the present analysis and recent behavioral alternatives to Skinner’s perspective, namely the molar perspectives of Baum (e.g., 2011) and Rachlin (e.g., 2013). All three recommend a reconsideration of the subject matter. Advocates of molar positions consider behavioral events to be much more historical and extended over time, rather than as relatively discrete, molecular events. From an interbehavioral perspective, though, a psychological event is always happening right now. To be sure, molar response patterns are conceptualized as happening right now as well; interbehavioral history participates in all psychological events. As we have described, understanding the complexity of the present circumstance requires a consideration of stimulus substitution among other factors in the event field (Hayes, 1992).

We have provided an alternative answer to the question “Are thoughts private?” Our analysis is not only pursued to provide an alternative to more common be-

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<sup>7</sup> To be clear, it is not our goal to provide a comprehensive analysis of therapeutic interactions, but rather, to demonstrate how our analysis can be used to conceptualize applied situations which are often assumed to involve private events.

havioral perspectives, but also to offer one that is both thoroughly consistent and comprehensive (Kantor, 1958). From this perspective there is no public-private dichotomy and a private domain is never appealed to. All behavior, even that most often assumed to be within us such as thoughts, may be conceptualized as public. To the extent that others share our systemic values, they might consider the interbehavioral alternative.

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