COMMENTARY

The foundational nature of events

Gabriel A. Radvansky

Department of Psychology, University of Notre Dame, Notre Dame, IN, USA

In their target article, Taves and Asprem suggest that the study of the cognitive science of religion can be aided and more effectively addressed by incorporating the principles and ideas of event cognition theory (Radvansky, 2012; Radvansky & Zacks, 2011, 2014). This is not how we imagined or intended event cognition theory to be used, and Taves and Asprem are right to extend it into this domain. Although event cognition theory primarily developed in the areas of visual perception, language comprehension, and memory, it is a theoretical framework that can have broad appeal and usage across a number of domains in cognitive science. Taves and Asprem’s application is in keeping with this spirit.

There are a number of elements of event cognition theory that were identified as important for their argument. This includes the elements of event models, such as the spatial-temporal framework, the relevant entities, their properties, and most importantly, the causal/functional relations among the various event elements, as well as how events are related to one another. The set of causal relations among events and elements is the backbone of our comprehension and memory. This follows on from the idea that events that are causally connected to a greater number of other events are rated as being more important (Trabasso & Sperry, 1985; Van den Broek, 1988) and are remembered better than other events (Radvansky & Copeland, 2000; Radvansky, Copeland, & Zwaan, 2005). Thus, the value and importance of a religious experience can be quantitatively indexed in terms of how it is viewed as being causally connected to other events in a person’s life.

Taves and Asprem also point out the importance of event boundaries. Event boundaries are points where prediction breaks down and a person closes up one event model and moves onto another. Because of the change in mental processing that occurs at these points, people are more likely to be able to remember those experiences and find them important, rather than the duller, constant stuff that occurs between those joints. Religious experiences are defined by large changes in what is expected, which is a critical point in event cognition theory. This ties into the causal structure of experienced events because it is at the event boundaries that causal influences are most likely to be observed.

This is all important because the knowledge that we create and hold in event models is very durable. It is retained over long periods of time, with much less forgetting compared to other types of information, such as verbatim memory (Kintsch, Welsch, Schmalhofer, & Zimny, 1990; Radvansky, Zwaan, Curiel, & Copeland, 2001). Event model processing is also less affected by changes in cognitive processing that accompany aging (Radvansky & Dijkstra, 2007). One could suppose that, from an evolutionary point of view, event cognition is very robust and fundamental, and is likely to be used, in some form, by a wide variety of other animals. This likely fundamental nature highlights the need for event cognition to play a major role in theorizing about how people interpret, remember, and act on their experiences.

Using event cognition as a basis for theory development also opens up avenues into other theories that are relevant for the cognitive science of religion, such as autobiographical memory, episodic future thinking, and spontaneous memory. Autobiographical memory is relevant in part because
it takes the event models and relations derived from experiences and weaves them into a life narrative that gives meaning and direction to a person’s life. Religious experiences, how they are represented in event models, and how they are retrieved from memory in constructing the life narrative would be of vital importance.

Another area, along with event cognition, that can help the cognitive science of religion is episodic future thinking (Atance & O’Neill, 2001; Szpunar, 2010). Episodic future thinking is when a person imagines what will happen in the future. Episodic future thoughts are created using both information in semantic memory, such as schemas, and prior episodic memory experiences (Schacter, Addis, & Buckner, 2007; Szpunar & McDermott, 2008). In fact, anterograde amnesics who have trouble memorizing new episodic event experiences also have trouble imagining future events (Klein, Loftus, & Kihlstrom, 2002). Given that how we imagine what will happen in the future is so grounded in our experiences in the past, how one forms event models of experience will serve as a touchstone for guiding our thoughts of what will happen in the near and distant future. Thus, how one conceptualizes and experiences religious events will color how we will expect the future to unfold.

A third line of theory that can be of relevance is that of involuntary memories (Berntsen, 1996, 2010). These are instances in which some element of an experience brings to mind, without a deliberate effort, some memory of a person’s past. Like episodic future thinking, these occur very often during one’s day, and are more likely to be viewed by the person as being positive rather than negative. By viewing these involuntary memories as event models, we can then more effectively identify the various types of information that would be part of these memories, as well as a person’s subjective experiences of those unbidden memories of events. This is especially likely to be true of events that are distinctive in some way and important to the person. These will help color how people are viewing their immediate experience, and help guide the choices and actions they take.

So, in sum, there is great promise in Taves and Asprem’s suggestion that event cognition theory can effectively quantify and organize theorizing in the domain of the cognitive science of religion. Event cognition provides a means of understanding the experience of the person within the event as it unfolds, the later memory of that experience, and types of narratives that are constructed in which these events are embedded as people derive meaning from their experiences.

**References**


