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Revelatory experiences: meanings, motives, and causes

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BOOK SYMPOSIUM: REVELATORY EVENTS: THREE CASE STUDIES OF THE EMERGENCE OF NEW SPIRITUAL PATHS BY ANN TAVES

COMMENTARIES

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Naturally supernatural

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Ann Taves, in her newest book on religious experience, *Revelatory Events: Three Case Studies of the Emergence of New Spiritual Paths*, writes to make natural what many consider supernatural (Taves, 2016). She focuses on understanding in naturalistic terms rather than supernatural terms the "historical process whereby small groups coalesced around the sense of a guiding presence" (p. xi). Her voice joins a growing discourse in the academic study of religion about how we might theorize the naturalness of the supernatural.

Representing a comparative religions approach is Jeffrey Kripal who thinks that the incorporation of paranormal events as historically shaped occurrences within the natural realm is essential to the future study of religion (Strieber & Kripal, 2016). This does not mean for him that the events have an explanation in any traditional "materialist" framework, but that the psychical phenomena are "real," by which he means that nature can and does behave in extraordinary and special ways all the time. Rather than avoid these "super natural" phenomena that violate our basic ways of knowing, they ought to be theorized using a comparative approach to the study of extreme religious events (Kripal, 2014, pp. 143–176). Such analysis, Kripal argues, may unlock or make possible a new understanding not only of anomalous states of cognition, but also of the nature of consciousness itself, which he doubts can finally be reduced to any purely materialist or physical process.

Another perspective is developed by the anthropologists Michael Winkelman and John R. Baker. Their biocultural approach to religion is meant to explain from scientific and cultural perspectives that having "an experience of the 'supernatural' is a completely natural thing to do." This does not mean for Winkelman and Baker that otherworldly things actually exist, but that it is a "natural condition of human beings to have religions" and "think about the supernatural" (Winkelman & Baker, 2010, p. xxii). Winkelman and Baker rely on a long evolutionary story (which includes humans' ability to create culture) to explain what happened to humans' ancestors that caused them to develop the capacity for religious thought and practices. Paschal Boyer's cognitive approach to religious ideas correlates with the biocultural approach, arguing for the naturalness of supernatural thinking based on evolutionary biases of mental processes (Boyer, 1994, 2002).

Taves' book maps a historical-cognitive approach to the supernatural. Her goal is to provide historical and cognitive explanations for visionary and auditory experiences, cases when people with unusual mental abilities have sensed presences, seen apparitions, and heard voices that resulted in the emergence of new spiritual paths and religious movements. While she works to analyze socially the claim of the visionary and the first collaborators of the new religious movement, that supernatural entities are guiding the formation of a new spiritual path, she deals with these historical accounts of the supernatural by naturalizing them. She is particularly focused on the historically chronicled experiences of Joseph Smith, Bill Wilson, and Helen Schucman, "revelatory events" that she argues led to the formation of Mormonism, Alcoholic Anonymous, and *A Course in Miracles*.

Problematizing religious experience

The problem that Taves is addressing is one that has beleaguered scholarship for too long. How do we, as historians, comparativists and cultural critics of religion, objectively analyze accounts of personal religious experience, especially revelatory ones that serve to authenticate religious movements? How do we explain in empirical terms people's stories of meeting or being possessed by supernatural entities in realms that are outside not only the human body, but also the natural world? How do people come to understand these experiences of the supernatural to be life-changing, religiously groundbreaking, and legitimizing new religious knowledge?

To elucidate this empirically has meant that scholars typically have turned to explanations of mental pathology (i.e., hallucinations, epilepsy, schizophrenia), deception, and imagination. This leaves revelatory experiences between a rock and a hard place, as either crazy, fraudulent, or fantasy.

In my own field of study, ancient Jewish and Christian literature, revelatory experiences have been problematized similarly, although the subject has been framed differently given the highly textual nature of historical-critical studies and its theological encumbrances, which includes a long preoccupation with mysticism. For years the discussion of ancient mysticism was bifurcated between those scholars who advocated that accounts of sacred visions reflect genuine or authentic religious experience and those scholars who attributed the accounts to scribal activities (DeConick, 2006, pp. 5–8). In other words, to give scriptural authority to recently composed (often non-canonical) texts, new authors reframed canonical biblical narratives of religious experiences and attributed the rewritten stories to themselves. These arguments for exegetical practices among parabiblical and Hekhalot authors have never been far removed from discussions of deception, forgery, and pseudonymity. How the "original" biblical narratives of religious experiences emerged has been left unexplained.

Theological concerns beset both sides of this conversation. On the one hand, the religious experiences of ancient Jewish and Christian authors were affirmed as genuine or authentic mystical experiences, although no empirical explanation was garnered to explain them. As I look back on this argument, I realize that, whether intentional or not, this acceptance of the authenticity of religious experience in Jewish and Christian literature implicitly worked to legitimate the emergence and formation of early Judaism and Christianity as divinely guided and sanctioned. On the other hand, while offsetting the problems that explanations of mental illness posed for YHWH's (pronounced Yahweh) mystics and prophets, exegetical explanations ended up reinforcing canonical structures so that parabiblical and Hekhalot authors in particular were presented as forgers with fantastic imaginations.

I entered into this discussion with my first monograph *Seek to See Him: Ascent and Vision Mysticism in the Gospel of Thomas* (DeConick, 1996). I pushed forward a decade later with an edited volume *Paradise Now: Essays on Early Jewish and Christian Mysticism* (DeConick, 2006). In both works, I managed this problem by advocating for a simple historical solution which I summarized in my essay, "Mysticism before Mysticism: Teaching Christian Mysticism as a Historian of Religion" (DeConick, 2011). As a historian, I set aside the contemporary problem of the supernatural and instead focused on writing thick descriptions of how the ancient people expressed and explained their experiences. Then I examined the impact this had on their religious practices and thought. While this approach worked for me as a historian, it was limiting. I found myself trapped in discussions of bygone religion and constrained from asking bigger comparative questions.

On the recommendation of a colleague, I started reading studies in cognitive linguistics and science. As I read, I began to think seriously about the mental processes of human beings and how this impacts religion. As a historian, I was writing about ancient religious beliefs and practices and their transmission among different populations. Yet I had no idea how these processes of meaning-making and transmission actually worked. How did ancient people make meaning? How did they share this meaning with other people? Why did some ideas and practices stick, while others did not?

As a historian, I was good at chronicling historical formations and developments, contextualizing cultural thought and practices, and deliberating their social implications. But the limitations of arguments for cultural borrowing and conscious cultural appropriation restricted my work. There was little I could do when it came to comparison, especially in transcultural and transhistorical situations. What was left out of my work was what I have since come to call *the human factor*: our bodies, brains, and emotions, or put another way, how humans process information, make sense of their world, often in innovative ways.

The more I read and reflected, the more I became an advocate for the integration of the historical method and cognitive studies because of its explanatory power and usefulness for comparative work (DeConick, 2016a, 2017), an integration Taves promotes in her book as well. Because of the human factor, cognitive approaches can help us explain uniformity and consistency in religious phenomena with reference to the deep architecture of cognition itself, that is in the role that mentality and embodiment play in concept-building (DeConick, 2017, pp. 87–88, 110–112).

Like myself, Taves identifies herself as "a historian with interests in cognitive science" who wishes to use an integrated comparative approach to explain the "events that people experienced firsthand and the processes whereby they came to believe that something had been revealed by or via a suprahuman source" (Taves, 2016, p. 1). Taves understands this integration to be a matter of drawing on "methods and findings from the natural and social sciences to explain the emergence of these new spiritual paths in naturalistic terms" (p. 3). In *Revelatory Events*, Taves is resolute that claims to revelation be studied historically *and* cognitively, so that we can understand how these people perceived that they were being guided by supernatural entities and how they negotiated any discrepancies, conflicts, and contestations. Thus, in her book she places side-by-side socio-historical and cognitive explanations.

Special mental abilities (or not)

Taves provides cognitive explanations for the events experienced by visionaries firsthand, including their belief that a presence other than themselves is guiding them and, in some cases, producing complex texts such as the *Book of Mormon* and *A Course in Miracles*. Here, she relies on research on benign schizotypy in order to establish that people with unusual cognitive abilities exist within the general population (Taves, 2016, pp. 8–9). These people are highly hypnotizable and distinguishable from other people who might be delusionary and seek clinical treatment. Highly hypnotizable people have an ability "to manipulate cognitive processes *in response to external cues*, distinguishing them from those who seek clinical help because they have difficulties regulating or controlling their unusual experiences" (p. 260, emphasis in original).

Taves goes on to explain the experience of suprahuman presences by building on research on phenomena associated with dissociative disorders, spirit possession, shamanism, and mediumship, what she identifies as the ability of highly hypnotizable people to dissociate thoughts to the point that they do not recognize these thoughts as their own and automate voluntary tasks without practice. These abilities appear to be related to the fact that hypnotic induction helps to focus attention and trigger shifts in our normal cognitive control processes. While there is no evidence that Smith, Wilson, or Schucman underwent formal hypnotic induction, Taves argues that Smith and Schucman at least were able to manipulate their attentional processes in unusual ways through practices like gazing into a seer stone (Smith) or writing in a notebook (Schucman).

The shift that Taves makes here is valuable methodologically because it pushes the conversation beyond hypotheses of mental illness to *the mental abilities of the human mind*. This shift is part of a larger body of literature addressing what I call *the biology of ecstasy*, otherwise known as the neuroscience of religious experiences (Beauregard, 2011a) and altered states of consciousness (Cardeña & Winkelman, 2011). Not only does this literature address the brain structures and chemistry involved in ecstasy and other altered states, but also most importantly how these states might be elicited

through religious ritual like meditation, prayer, chanting, dancing, and use of psychedelic substances (Hood, Hill, & Spilka, 2009; Winkelman, 2016).

The argument for special mental abilities, however, whatever its many merits, does not take off the table mental illness or physical sickness, which still may offer explanations for some revelatory events. While we should not fall into the trap of past theorists who thought that mental illness or sicknesses are the cause of revelatory events, it is necessary that such investigations into the mental and physical health of the seer take place (if possible) on a case-by-case historical basis. So we might ask whether Bill Wilson's religious experience at Towns Hospital may have been associated with alterations in brain chemistry that occur with withdrawal from alcohol dependency. And whether Helen Schucman's stressful, even traumatic relationship with William Thetford may have predisposed, influenced, or even shaped her psychological condition and unusual mental abilities. In other words, measuring the specifics of historical situations can control for the cognitive drift toward universalizing and generalizing.

Social interpretation of revelation

Taves knows that the cognitive explanation of founders with special mental abilities cannot stand on its own as an explanation for revelatory experiences. Knowledge is constructed by communities of people, including revelation. Building on the work of Rodney Stark (1999), who argued that small intimate groups play critical roles in the religious interpretation of unusual experiences, Taves maintains that the meaning-making process involved in revelatory events relies on group dynamics.

She says that the group has to develop ways for the community to believe that the supernatural entity is guiding them and unfolding a new spiritual path. They establish a means of communicating with the entity and develop criteria for identifying "authentic communications" (Taves, 2016, p. 230). Then, in a circular logic, this supernatural guidance provides and legitimates the developing official account of the group's origins, "bootstrapping" something new into existence (p. 7). In this way, the group reconfigures the visions of their leader as someone who is a conduit of a suprahuman presence. Once this occurs, the group is able to emerge around the instruction of the suprahuman presence and call upon themselves and others to reorient their lives around this teaching.

This allows Taves to naturalize the supernatural. According to her, suprahuman sources are "dissociated subjectivities who were motivated to envision a way forward for the group as a whole" so that the collaborators and those who join the group later have motives that coincide with the perceived presences acknowledged by the visionary (Taves, 2016, p. 223). This leads her to identify the key to successful new religious movements in their ability to transform problems that were initially very personal and limited to the visionary into "paths that offered spiritual solutions to more generalized problems" (p. 224). By comparing her three case studies, she is able to outline several interactive processes that move the visionary and the group in the direction of creating a successful narrative about the divine guidance of their movement, from their initial experiences and emergent visions, to stabilizations of the visions, the incorporation of outsiders, and going public with the message.

The construction of revelation

In *Religious Experience Reconsidered*, Taves was a pioneer in helping us to conceive religious experience as culturally constructed, to separate a special human experience from its religious explanation (Taves, 2009). To use Taves' language, experiences can be "deemed religious" or not (Taves, 2008). This distinction allows us to analyze how people decide on the religious meaning and significance of their special experiences.

Taves continues this critical program in *Revelatory Events*, but with reference to a special kind of religious experience, what we have regularly call in my field of study *revelation* (apocalypse). She refers to revelatory experiences as "revelatory events" because they are "happenings" that people

experienced firsthand, when they came to believe that something had been revealed to them by a suprahuman source (Taves, 2016, pp. 1–3). While Taves clearly makes a distinction here between the event (firsthand experience) and its revelatory interpretation (what they came to believe about it), the phrase "revelatory event" is suggestive that an actual historical event of revelation took place. It is difficult to know what to do with this terminology in order to maintain the critical edge Taves herself advocates: that there are no experiences that are inherently religious.

I first started thinking about the difference between *experience* and *religious experience* when I read the work of Alan F. Segal who argues that religious experiences are actually "religiously interpreted states of consciousness" (Segal, 2006, pp. 27–40, 2012, pp. 365–368). Because of Segal's work, I became uncomfortable with the expression "religious experience" and instead preferred to discuss "mysticism," which I understood rather traditionally to be the practices people use to elicit transcendent experiences, however they might describe these experiences culturally (i.e., a soul flight to sacred zones; transformation into angelic beings; union with God) or use them sociologically (i.e., legitimate their authority and leadership; provide community with comfort or guidance in a time of crisis; reveal a new spiritual path). I felt that I could empirically describe the practices that mystics use and I could speak to their interpretation of their experiences and aspirations. In other words, I preferred this terminology for its cultural controls. The difficulty is that mysticism does not describe all religious experiences, but it often is implicated in revelatory ones.

However we decide to talk about religious and revelatory experiences in the future, the distinction between special experiences and their religious interpretation is difficult to communicate and maintain, especially beyond the study of religion. The neuroscientific literature aimed at the study of religious experiences (cf. Beauregard, 2011b; D'Aquili & Newberg, 1999; Hood et al., 2001, 2009; McNamara, 2009; Previc, 2006) seems unaware of the distinction that scholars of religion like Taves make between mental experiences and their religious interpretation, and the conversation within anthropological literature about the entrenchment of these experiences within cultural and institutional structures (cf. Cole & Engeström, 1993; Räisänen, 1999, 2000, pp. 189–202). The assumption underlying the discussion in the neuroscientific literature – that physical states of consciousness are fundamentally "religious" or "spiritual" or "mystical" – is a misapprehension of the subject, mistaking a mental event for a cultural interpretation of a mental event.

Moreover, the supposition in this neuroscientific literature – that experiences of positive and transcendent feelings combined with dissociated feelings from the self represent a "mystical" or "numinous" empirical state – is based on the turn-of-the-century psychological model of William James (James, 1902) and the theological work of Rudolph Otto (Otto, 1937). Most scientists who write about mystical states of consciousness seem to be aware of these older studies, while failing to know the subsequent century of research on mysticism written by scholars of religion who have made very significant advances in our understanding of mysticism in historical, social, and culturally critical terms.

Reconsidering fraud

Taves' cognitive solution to revelation – that it is not representative of mental illness, but can be accounted for as the natural cognition of people with unusual mental abilities – is one way we can frame the discussion anew. But this reframing may not be robust enough to explain particular historical cases, when we are called upon as cultural historians to recognize the dynamics of power and the play for capital gains. In some cases, the revelatory event might not have happened, but surfaced as a fraudulent claim.

I am not suggesting that we return to old models and explain revelation as fraud. But I am saying that there are historical cases when people make fraudulent claims to revelation to control knowledge and communities of people. And it is incumbent upon us to try to sort this out as historians. Such a discussion is absolutely necessary to have when we try to understand a figure like Joseph Smith, where there are overt signs of fraudulent activities, including legal proceedings for deceptive treasure-hunting activities, such as using the seer stone that also was used as the translation stone.

While Taves is aware of these charges of fraud, she does not explore them as a possible factor in Smith's case. Rather, Taves argues that, because Smith claimed to have had religious experiences as a young man and some of his first followers insisted he was not a fraud, Smith was prone to unusual experiences, and that this largely accounts for the automatic translation of the *Book of Mormon*. Even so, the historical evidence is impressive that there were no golden plates. So Taves goes on to argue that there never were golden plates. She says that the plates were items that Smith crafted himself, not to deceive anyone, but to materialize his revelation "in faith" (Taves, 2016, p. 59).

While this is a possible explanation, there is room for cultural critique. From this perspective we might suggest a different story that places Smith at the competitive center of treasure-hunting and money-digging activities in Palmyra (Quinn, 1998, pp. 30–65). In search of the ultimate treasure and social and economic capital, the fraudulent creation of ancient plates may well have been in Smith's (and his family's) best interest.

This is all to suggest that there may be occasions that we are not talking about revelatory events at all, but false claims to revelation for capital gain. While I am not suggesting that the hermeneutics of suspicion and power be allowed to drive our cognitive-historical inquiry, I am suggesting that it is one card among many that ought to be in play.

Individual genius

Taves' historical and social analysis fits within the recent literature about the developmental and organizational processes of new religious movements which have tended to emphasize the significance of the extraordinary experiences of the founders (Bromley, 2016; Bromley & Hammond, 1987; Lewis & Hammer, 2011; Stark, 1996, 1999). Even though Taves is careful to autopsy communal dimensions of meaning-making, the emergence of new religious movements and spiritual paths still hinges on the individual genius, the special mental abilities and religious experiences of individual people.

While the personal experiences of founders can be important motivators, there are new religions that form without them. This causes me to conclude that they are not essential to the emergence of new religious movements, nor are they essential to their success. So I encourage us to develop a cognitive-historical paradigm that does not fetishize extraordinary experiences and individual genius, but instead embeds extraordinary experiences and individual genius within a network of seven activities that are associated with the emergence of new religious movements.

- (1) Dislocation. To begin, it is disillusion, disenchantment, or dissatisfaction of the founders and their collaborators that usually sets the stage for the emergence of new religious movements. The founders and their collaborators experience social/religious dislocation. This dislocation is often correlated with personal or historical trauma, crisis, or conflict. It may or may not involve extraordinary experiences.
- (2) Seeker response. A seeker response commences, which often involves prayer, meditation, the reflection on sacred texts and other literature (including philosophical and scientific), and the revaluation of personal experiences (extraordinary or not; past or ongoing). This response of the founders and collaborators often involves conversations with family and friends, who either support or dissuade the seekers.
- (3) Formulation of message. As the seeker response matures, a message is formulated. This message is usually framed along familiar narrative lines. Perhaps the most popular narrative is that the traditional religion is corrupt and the new message represents the restoration of the original religion, which has been hidden for centuries. Another popular framing is that the new message represents a genuine message of God that is older than all traditional religions.

- (4) **Legitimation**. The leader and message must be legitimated by the collaborators, who are usually family and close friends. This happens through the creation of narratives about the religious experience of the founders or their prophetic call, accounts that explain the origin and authority of the leaders and the new message. A new religious hermeneutic emerges and is authorized by the collaborators (who by now are the first followers), so that the community sees itself as the locus of truth and the last word.
- (5) Emergence of replacement religion. This authorization makes it possible for a replacement religion to develop as legitimate. New scriptures and rituals come into play, alongside expanded or revised narratives about the history of the new religion. An inner circle of leaders and early institutional structures form.
- (6) **Proselytization**. Proselytization beyond the initial followers becomes central for the movement's survival.
- (7) **Interaction with society**. For the religion to continue to grow, the members of the group find themselves interacting with society and other religions. In this interaction, they negotiate and decide how much to accommodate and how much to resist society and other religions.

Incorporating this network of activities into the conversation about the rise of new religious movements allows us to explain how ecstatic experiences of founders *and* collaborators (in cases when they occur) relate to the seeker response and the formulation of their initial message. It also frames ecstasy as one of many claims that groups use to authorize their new religious movements and support their proselytization efforts.

The natural turn

While Taves argues that cognitive explanations like benign schizotypy and dissociated subjectivities can account naturally for perceptions of suprahuman sources, there is room to wonder. Does benign schizotypy or a dissociative state cause the perception of a suprahuman source? Or are they correlated in some way we do not yet understand? Even more vexing, might they function as interfaces? In other words, might mental conditions such as dissociation or deafferentation be necessary conditions for the human mind to access knowledge and intellectual realities that are otherwise inaccessible to the conscious mind?

This certainly coincides with the ancient gnostic practitioners I study, who used exacting meditative rituals and incubation to uncover what they recognized to be hidden noetic realities, including their experiences of their authentic selves which they perceived to be transcendent divinities (DeConick, 2016b). If we are talking about certain mental conditions as *knowledge interfaces*, would we then be dealing with deep neurognostic structures such as Laughlin, McManus, and d'Aquili suggest to explain unconscious universal biological structures of knowing (Laughlin, McManus, & d'Aquili, 1992) and Winkelman uses to explain the underlying psychobiology of shamanic practices and Jungian archetypes (Winkelman, 2000, pp. 27–29)? If we understand dissociation or deafferentation to be cognitive conditions or neurognostic interfaces that allow us access to otherwise inaccessible noetic knowledge, then the human mind is naturally supernatural.

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Revelatory experiences: meanings, motives, and causes

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Introduction

Reports of supernatural agents (such as God or gods, demons, or spirits) speaking or acting through humans are present across cultures and periods of history in experiences of revelation and possession (Hvidt, 2007; Rouget, 1985; Samuel, 2010; Vitebsky, 2001). Indeed, revelatory experiences form a key part of the formation and development of major world religions through figures such as prophets, visionaries, and yogins, as well as in the religious practice of shamans and others in traditional smaller-scale societies. The related category of possession by supernatural agents is another major focus of religious and cultural activity, leading to attempts at ritual expulsion through exorcism, or – in other cases – accommodation of supernatural agents in possession cults and mediumship (Rouget, 1985).

How can such radical departures from more usual senses of self and agency arise? And, in the case of revelatory experiences, why are only some of these otherworldly incursions recognized by social groups as a basis for a new religious movement or understanding of the world? Ann Taves' Revelatory Events: Three Case Studies of the Emergence of New Spiritual Paths (Taves, 2016) brings a sophisticated interdisciplinary approach that provides deep insights into the processes by which revelatory experiences occur and influence society and culture. Taves' book provides detailed case studies and analysis of revelatory experiences in the formation of three groups that emerged in the United States in the nineteenth and twentieth centuries: Mormonism, Alcoholics Anonymous (AA), and the study groups associated with A Course in Miracles (ACIM). Each was associated with a founding figure whose "unusual experiences and/or abilities led to the emergence of a new spiritual path and to the production of scripture like texts that were not attributed directly to them. Joseph Smith (1805-1844), a farmer and treasure-seeker in upstate New York, had a vision in 1823 in which a personage told him of ancient golden plates buried in a hillside, which Mormons claim he recovered, translated, and published as the Book of Mormon (1830) and which led to the founding of a restored church (1830). Bill Wilson (1895–1971), a (failed) stockbroker, had an ecstatic vision of blinding white light when hospitalized for alcoholism in 1934, which he associated with the feeling of "presence" and which gave rise to a vision of a "chain reaction of alcoholics, one carrying this message and these principles to the next." The vision, once he rightly understood it, led to the anonymously authored *Big Book* (Alcoholics Anonymous, 1st ed., 1939) and the Twelve Steps and Twelve Traditions (1953) of Alcoholics Anonymous. Psychologist Helen Schucman (1909–1981) "scribed" the words of an inner voice, which she and her collaborators attributed to Jesus, to produce the best-selling self-study course *A Course in Miracles*" (Taves, 2016, pp. 3–4). Part 1 of the book examines how small groups of people believed they were guided by "suprahuman" (supernatural) presences, and generalized their experiences to expand their movements. Part 2 develops a naturalistic account of the emergence and role of these suprahuman presences (p. 7) – a particular focus of this commentary.

Phenomenology

A critical phenomenology remains an essential first step in identifying the types of experience and cognition that any explanatory theory must account for. What is interpreted as revealed communication can be embedded in very diverse types of experience and behavior. Messages may be communicated in speech, writing, or action. They may involve the attribution and experience of direct supernatural control over motor function (as in speech or writing) or thought, imagery, and perception. There may be loss of the sense of ownership of the contents of consciousness (e.g., this is not "my" thought), and in some cases loss of awareness or memory for communicating that mental content to others. The prophet or visionary may be viewed as inspired rather than controlled by the supernatural agent, allowing a greater contribution of individual agency and judgment – as in the notion of the "concursive activity" of the Evangelists with the Holy Spirit to produce the Gospels (Bowker, 1995), and the varying accounts of the degrees of Smith's agentive involvement in his revelations (Taves, 2016). In the language of descriptive psychopathology, revelatory experiences may variously involve hallucinations, thought insertion, alien control of movement, narrowing or loss of consciousness, and amnesia - among other possible changes in aspects of experience. The sheer range and complexity of revelatory experiences means that numerous cognitive and brain mechanisms must be involved in different instances, underlining the importance of accurate descriptions of experience in given cases to identify what is to be explained. This point is emphasized by Taves in her discussion of how complex cultural concepts such as "revelation" need to be analyzed into constituent parts to allow further analysis (Taves, 2016, p. 302).

A strength of the case studies chosen by Taves for *Revelatory Events* is the relative abundance of sources relating to these recent historical figures, allowing detailed reconstructions of their revelatory experiences. Taves' method includes a special emphasis on the earliest "close to real time" accounts, analysis of how subsequent retellings reflect evolving interpretations, and a meticulous comparison across the cases to identify similarities and differences in types of experience. Each case study is an analogue for the other, allowing mutually informative comparison of revelatory events and the paths they inspired. Even with these sources, however, it is striking how reconstruction of the revelatory experiences requires inference based on careful interpretation of the language used to describe them, informed by knowledge of similar kinds of experience. Qualitative and phenomenological interview in religious studies and social anthropology, and parallel psychiatric interview methods to elicit psychopathology, allow areas of uncertainty about the content of experience to be clarified to an extent that is not possible even with figures from the recent past when only "insider" accounts are available.

Nevertheless, Taves' textual analysis builds a case for a close similarity in the revelatory experience for Smith and Schucman: "we might infer a flow of words that was consciously recognised (known), while at the same time arising outside of consciousness as if 'told to' the consciously aware self" (Taves, 2016, p. 249). They probably had a great deal of control over the flow of words, even if they did not experience themselves as originating them. They may both have been able to shift from a "flow of words" modality into a visual modality – in which Smith, for example, may have been "able to see words spelt out." Schucman "switched modes when she sensed she had made a mistake in scribing the text" (p. 250).

A key premise of Taves' approach is that Smith, Wilson, and Schucman "brought unusual experiences and abilities to the process that were selectively appropriated by their respective groups" (Taves, 2016, p. 240). Taves' approach to explaining these unusual abilities, and their appropriation as revelatory experiences, employs the explicit use of analogies.

The use of analogy

Rom Harré's account of the role of analogy in scientific explanation complements Taves' own exposition of methodology (Harré, 2002). In general terms, an "explanatory model allows 'the construction of hypotheses about unobservable processes and structures that can be used to explain observable phenomena" (Harré, 2002, p. 54). Explanatory models rest on a particular use of analogy, in which (1) patterns of similarity and difference between the source model and subject are identified; and (2) the source model and subject are recognized as subtypes of an overarching category or 'supertype' which defines the characteristics they share in common" (Deeley, 2016a).

For example, Taves refers to different types of research on hypnosis and highly hypnotizable individuals to identify abilities and experiences which resemble those of Smith and Schucman. The underlying cognitive and brain processes of hypnotic phenomena may, by analogy, also have operated in Smith and Schucman. The source model of hypnosis allows the construction of an overarching category which also includes the transformations of self-experience occurring in revelatory events – specifically, a category of phenomena characterized by subjectively realistic, involuntary alterations in experience and behavior that conform to ideas, beliefs, and expectations that are socially acquired or influenced. Hypnotic phenomena and similar revelatory experiences "inherit" this shared characteristic as members of the category (Harré, 2002). For example, Smith and Schucman's production of complex narratives which they experienced as revealed by another agent are compared by Taves with a storyteller studied by the hypnosis researcher Ernest Hilgard. Following a hypnotic induction, this individual recounted what he and others believed was a past life in Victorian England. The analogy draws attention to potential similarities in aspects of producing narratives. For example,

the context of translating and scribing may have cued a different approach to narrating a story in Smith's case or writing a philosophical "treatise" in Schucman's case, much as hypnosis triggered a different approach to story-telling for Hilgard's student. They most likely entered this mode with a sense of what was unfolding, but without specifics, much like the "pattern" from which the storyteller's story unfolded. (Taves, 2016, p. 253)

As Taves notes, the analogy does not imply that revelatory experiences and hypnosis are the same. The higher-order category containing aspects of revelatory and hypnotic phenomena can also be extended to include other phenomena that resemble them in specific respects. This approach is used to demonstrate how widespread the experience of narrative production by a seemingly alternate self is across different types of human experience:

People have access to voices that are not their own in a variety of contexts ranging from psychopathology (schizophrenia and dissociative disorders), pretend play and imaginary inner dialogues, fiction writing, drama, online games, spirit possession, and shamanism. In all these contexts, we have examples of alternate selves that take on a life of their own and generate more or less elaborate self-narratives, autobiographies, and, in some cases, complex works analogous to the Book of Mormon and ACIM. (Taves, 2016, pp. 262–263)

Attempts to identify the underlying causal mechanisms of these alterations in experience have made extensive use of experimental models.

Experimental models

Experimental models represent a special use of analogy in which features of the subject (e.g., revelatory and possession states) are represented and investigated by controlled manipulation of the source model which would be impossible or difficult in the subject itself (Harré, 2002). Experiments using suggestion in hypnosis in our research group have modeled a range of alterations in agency and selfhood occurring in neuropsychiatric as well as non-pathological revelatory and possession states (Deeley et al., 2013, 2014; Walsh et al., 2014, 2015, 2017). The experiments have focused on the phenomenology and brain systems involved in loss of control, ownership, and awareness of thoughts and actions, as well as brain systems involved in representing external and internal control of action by an alternate agent. They included an automatic writing paradigm with suggested attributions of control by an external agent, the Engineer (Walsh et al., 2014, 2015, 2017). This modeled the descriptions of the inspired writing of Mabel Barltrop (Octavia), the founder of the Panacea Society, a Southcottian prophetic movement in Bedford, England, in the early twentieth century (Shaw, 2011) (its successor institution, a charity also called the Panacea Society, partly funded the research project). The controlled production and removal of experiential changes in hypnotically responsive participants allows the isolation of changes in brain systems associated with specific alterations in experience (such as loss of control or awareness of thought and speech production). This avoids the potential problem in brain measurement studies of cultural practitioners (assuming it is possible to recruit them into experiments) that a suite of changes in experience make it harder to identify which alterations in brain activity are linked to specific components of experience. It also means, though, that experiments represent and manipulate selected aspects of experience to isolate processes and identify mechanisms. They necessarily simplify the phenomenon to explain some aspects of it.

The experiments have several implications for understanding revelatory and possession states. They demonstrate how precisely the content of experience can conform to ideas, beliefs, and expectances. This in turn raises questions about the biographical and social sources of the ideas and expectancies influencing revelatory experiences in cultural practitioners – a point where the microhistorical approach of *Revelatory Events* is highly informative. The experiments illustrate how easily – at least in hypnotically responsive individuals – vivid experiences of the interventions of alternate selves can be established, and by implication in predisposed cultural practitioners. They show the changes in regional brain activity immediately associated with a variety of alien control phenomena and dissociations of the normal sense of self (see Deeley, 2016a, for a review of the main findings). The experiments – along with phenomenology – caution against generic notions of "revelatory experience" or "possession," while illustrating potential mechanisms for specific aspects or instances of such experiences.

The experiments also raise the question of how they differ from the phenomena they purport to model. The experiments rely predominantly on verbal suggestion, but many ideas and expectancies in religious and ritual practice are conveyed through non-verbal stimuli (e.g., artefacts, gestures, settings). Future research on non-verbal suggestion may provide further insights into the cognitive and brain processes involved in revelatory and ritually evoked experience. Suggestions in hypnosis usually involve ideas that are temporarily engaged with but are not considered to be "really real." Religious practice and contexts routinely engage authoritative beliefs embedded within larger systems of ideas, which are likely to lower the threshold for experiencing anticipated phenomena but also influence their attributed significance and individual and social effects (Deeley, 2016b). In fact, a key question concerns how we should understand the relationship between suggestive processes, beliefs, and the implicit associations and expectancies that inform revelatory or visionary experiences. Taves explains "sudden transformative experiences in terms of appraisals that were most likely embedded in the experience itself, and more gradual transformations in terms of appraisals generated through reflection, often in dialogue with others" (Taves, 2016, p. 307). Appraisals are based on internalized schemata, potentially including shared "cultural models," which constrain salient experiences – even in cases of more loosely associative, connotative, imagistic modes of "sudden transformative experiences" (Deeley, 2004, 2005). In other words, individual and cultural learning constrain prereflective experience as well its ongoing interpretation. Seligman and Kirmayer, in their account of the cultural differentiation of dissociative experience in mediumship and spirit possession, speak of a "biolooping" process by which individual cognition is structured by cultural practices and scripts (Seligman & Kirmayer, 2008). Taves' analysis demonstrates social and cultural

aspects of this process by charting the evolving interpretation of transformative experiences. Yet the biographical origins of the appraisals embedded in "sudden transformative experiences" are also convincingly displayed. Cultural scripts, models, or schemata are close to the concept of beliefs, yet also establish expectancies and models for experiences as suggestions do. Future research should address the relations between these processes, but also the question of whether cultural practices and scripts establish genres or styles of sudden visionary experiences. If so, this would imply cultural differentiation of the brain processes involved in prereflective transformative experiences. This leads us to consider the processes generating the content of revealed messages by "suprahuman" agents – a particular focus of *Revelatory Events*.

The source of revelation

Group dynamics and the recognition of revelation

An important feature of *Revelatory Events* is Taves' microhistorical demonstration of the evolving relationship between the content of revelatory experience and its social reception by their earliest collaborators (Taves, 2016, pp. 268–269). It is striking that all three cases occurred outside, or in loose association with, existing traditions, so situational interpretation by small groups allowed the formation of new movements. This contrasts with the reception of potential revelatory events in established systems. This would include the role of the Congregation of the Doctrine of the Faith in Roman Catholicism, which for example did not consider the inspired writings of Vassula Ryden as true revelations despite their traction among many Roman Catholics (Hvidt, 2007); or, in a less centrally regulated system, the role of a lama in the lama-disciple relationship in interpreting visionary experience (Geoffrey, 1993).

In fact, many forms of experience and behavior can be interpreted as revelation – or not – by a relevant social group, including what might be otherwise viewed as psychopathology (see, for example, Roland Littlewood's account of the Mother Earth movement in Trinidad; Littlewood, 2006). To reinforce an earlier point, the category of "revelation" accommodates very diverse types of experience and behavior. Yet, as *Revelatory Events* also demonstrates, commonalities can be found in many instances of revelatory experience, in particular the sense of an alternate self as the source of communication, justifying the attempt to identify shared underlying mechanisms.

Motivation and selfhood

Taves addresses the important question of how a social group can speak through an individual to itself via the formation of a "suprahuman" alternate self – the cognitive vehicle of the Durkheimian unconscious. As she puts it,

the emergence of suprahuman entities can be understood not only as a socially recognised alternative self mediated through shifts in the self-identity of one or more members of the group (a collectively agreed upon subjectivity) ... but also as a personification of the goals of the group motivated by the needs of the group as a whole (a motivated collective subjectivity). (Taves, 2016, p. 274)

The "needs" of the group relate to the problems posed by potentially competing motives, in which the revealed spiritual path is a goal-directed attempt to resolve them. This is a distinctive mode of creativity which enlists the authority of a suprahuman agent – the Lord, the Higher Power, or the Voice – to resolve problems facing a group by legitimating new norms and goals (Taves, 2016, p. 282).

In the case of Joseph Smith, Taves proposes that

while reputation and financial stability were issues, the primary problem was the growing divide between his religiously sceptical, treasure seeking father and his evangelical mother and siblings. In Smith's case, the most

pronounced personal and public motives – overcoming religious conflict and dissension – were congruent and thus reinforced one another rather than generating conflicting goals. (Taves, 2016, p. 283)

Two motives are identified for the formation of *A Course in Miracles*: to maintain Helen Schucman's unrequited attachment to Bill Thetford, and to articulate – through the messages of a dissociated self – a view that she was lovable as a compensation for childhood emotional neglect. Both explanations are plausible and coherent in light of Taves' detailed biographical accounts. Given the emphasis placed on quantitative research on causal mechanisms in Part II of *Revelatory Events*, it is striking that these explanations – which resemble psychotherapy formulations in clinical contexts – are so central to the argument of the book. This illustrates how even in an era of quantitative science, fundamental levels of explanation are judged by appeals to the coherence and plausibility of relations between mental state terms such as goals, feelings, and motives, rather than experimental demonstration.

A key question, though, concerns to what extent the suprahuman selves can be conceived of as autonomous agents with sociocentric motivations, or in fact as subsidiary to the psychological adaptation of the dominant self. At the level of mechanism, a dissociated alternate self must at least be substantially derived from the knowledge and abilities of the dominant self (Deeley, 2003). At the level of motivation, revealed messages can sometimes conspicuously serve the interests of their prophet in disputes or other matters (e.g., Shaw, 2011). Behavior that implies supernatural control can elicit skepticism or attributions of illness by interested parties, as in the case of a young Indian woman whose spirit possession was ultimately doubted as an explanation for exam failure by her family (Deeley, 1999). Supernatural authority can of course be fraudulently invoked, illustrated by an East African Kamba woman who, deprived of meat by the reluctance of her husband to pay for it, resorted to possession in which her hunger was expressed by a spirit. However, "once her desires were satisfied she made the serious mistake of boasting her successful deception so openly that it came to the ears of the husband who, outraged, sent her packing to her father" (Lewis, 2003, p. 72). Yet the voice of prophecy can speak with authority and profound cultural resonance, its influence outliving its prophet by centuries. The refraction of cultural knowledge through a visionary to transform society is considered by Taves and previous researchers (Samuel, 1990; Wallace, 1956). Judgments about the extent to which suprahuman communication reflects more collective concerns are a matter of interpretation, but also have a bearing on the psychological question of the extent to which an alternate self can become substantially uncoupled from the adaptation and interests of the dominant self.

The neural basis of alternate selfhood, and the content of revelatory experience

Taves draws on the work of Gerrans to identify the default mode network (DMN) as the neural basis for alternate selves, including suprahuman agents such as the Lord, the Higher Power, and the Voice: "research on unconscious motivation, agency, and self-agency suggests how the default mode network, with its ability to simulate self-related scenarios, could elaborate motivated subjectivities into an alternate group-identified self that could seek to guide the emerging group" (Taves, 2016, p. 306). Also, "faced with competing centres of motivation of goal-directed action ... the DMN constructs narratives to make sense of them and, in doing so, may personify them as selves, either our self or another self seemingly acting in and through us" (p. 273).

While numerous experiments show involvement of DMN in self-related processing (e.g., Deeley et al., 2012), there are difficulties with ascribing diverse aspects of selfhood to a single brain network such as the DMN. One issue concerns localization of function. It is unlikely that a complex set of functions can be mapped onto a single brain network. This is the case even where a network is disproportionately involved in a set of functions compared to other brain regions, as shown, for example, by net regional brain activation that stands out against a background of interactions between distributed regions and networks. Different aspects of selfhood are likely to require the

orchestration of different brain systems. For example, loss of perceived control and ownership of the intrusions of an alternate self would be predicted to involve changes in the functional coupling and activity of supplementary motor area (SMA), and DMN, among other regions and networks (e.g., Deeley et al., 2012, 2013, 2014; Walsh et al., 2014, 2015, 2017).

Another issue concerns how best to relate mind talk to brain talk. The proposed role of the DMN - for example, constructing narratives to make sense of them, and personifying some as selves - displaces the cognitive abilities of a person to a brain network. It is not clear what terms that usually presuppose intentional agency - such as "making sense of" - mean when they are applied to a material system or its parts (Harré, 2002). Cognitive neuroscience often tries to avoid problems of over-localization and personalization of brain function by using a more impersonal, weaker kind of causal explanation in which a given region or network "supports," or "is involved in," a given cognitive process, without claiming to reproduce the personalistic function in its entirety within the region or network. Stronger claims about localization are more typically made in relation to fractionated components of larger processes (e.g., motion detection, facial identity recognition), which are steps away from the more general ability (e.g., vision) and its incorporation into complex goaldirected behavior. All of this does beg Taves' question, though, of how the processes isolated by cognitive neuroscience can be re-embedded in individuals adapting to the social world. The general problem is how to consider different levels and types of constraint together in their entirety - the problem of the regulative hierarchy of behavior. In this light, the importance of Revelatory Events lies not only in the insights afforded by its meticulous historical scholarship, but also in explicitly linking the different levels of which human lives are composed.

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Approaches to historical explanations

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Ann Taves' Revelatory Events is a fascinating book. It draws its reader into the earliest days of three different spiritual organizations (their identification as such is carefully drawn), methodically unpacking the processes of their emergence. Very clearly written and structured, it moves between disciplinary discourses, sifting meaning from the multiple narratives relating to each case study, and their myriad, often conflicting details. In particular, Taves' examination of these accretions of accounts, and her insights into the ways in which these stories shifted over time and changing contexts, are particularly absorbing. The result is a rich and very stimulating volume. Taves states in the preface (p. xiii) that there are three different ways of reading the book: first, as a contribution to the study of new social movements; second, as a contribution to creativity studies; and third, as a demonstration of how historians can use cognitive social sciences to explain historical phenomena. ("Cognitive social sciences" is unpacked later to mean a combination of social scientific theories about creativity with experimental research on nonconscious mental processes grounded in evolutionary and cognitive social psychology; see p. 224.) The book aims to explain the nature of revelation specifically as an event, and this reader certainly came away with clearer insights into both the experimental research into individual abilities which may explain such phenomena, and aspects of the historical contexts in which they may have occurred. And, from its earliest pages, this account provoked useful and invigorating questions for me, and I am grateful for the opportunity to explore them a little further here.

I start with a brief response to the book's initial discussion of the definition of revelation and its knowledge claims. This aspect introduces not only a number of specific issues that I will discuss further below, including the analysis of the subjective experience of historical actors, and the nature of historical explanation, but also an overriding theme of concern that runs throughout my comments here: the need for – and difficulties of introducing – contextual complexity.

Taves states early on (p. 2) that there are two knowledge claims involved in a "revelatory event." The first of these is "the commonplace and empirically verifiable claim that knowledge has been communicated or disclosed," and it is the second, the claim that it comes "from a divine, supernatural, or suprahuman source," which is "controversial." At first sight, this neat division seems intuitively right, but (for me) reflection on examples of ancient revelatory events prompts some uncertainty. For example, the accounts of healings (Iamata) given in dreams at Epidauros, in the Sanctuary of Asclepius, are difficult to fit into this structure (for translations of the texts, see LiDonnici, 1995). How are we to understand the claim that such knowledge had been communicated as either commonplace or empirically verifiable, except in the most trivial sense? For the Greeks, the idea that a god might visit in a dream, and impart the means of your physical or mental restitution, was perhaps less unusual than in (at least) most modern Western cultures; but the fact that accounts of such visits were posted on stelai (pillars) around the temple implies that this was not regarded as a "commonplace" claim. The display of the *Iamata*, as well as the fact that these accounts include stories about those who visited and doubted the god's power, also intimates that, even for those involved, verifiability was an issue. In turn, the division between the claim that knowledge had been communicated (knowledge that often involved guidance about what behavior was acceptable to the gods) and the origin of that knowledge is unclear: the (often remarkable) content of these revelations can be read as offering at least some evidence that the interaction in which it was transmitted must have been with a supernatural figure. Thus, the clarity of Taves' initial definition, while admirable, seems to me to risk eliding the necessary complexity of this phenomenon. Indeed, when we turn back to the case studies in this book, her own careful examination of the content of the different revelatory claims indicates that her analytical approach is more complex than this initial definition suggests. These case studies seem to demonstrate that the claims made about the communication of the knowledge are as significant as - and integrally related to - those about its source.

Examining the definition of revelation leads directly to another example where complexity is necessary: the subjective experience of historical actors. As part of the discussion of her own values and presuppositions (pp. 9-10), Taves argues that "it's important to take account of how things feel to people on the inside," and asserts that it is important to be able to shift between humanistic and scientific assumptions, so that we can "explore what experiences, beliefs and practices are like for those who hold them." This is something of an impossible ambition for most ancient historical studies. For example, the individuals whose experiences are recorded in the *Iamata* are otherwise unknown; they left nothing behind but a name and an inscription; they may never have existed; and yet they appear to offer attestation of a certain body of beliefs. (And I use the term "belief" loosely, in light of the current debate in my field about its historical significance.) Nevertheless, while there are many who would disagree that we can ever access the realm of experience or belief of our historical subjects, I would rather argue that an individual cannot be extracted from their surrounding culture - with all that implies both for an individual's cognitive processes and the evidence produced by or about them. In the process of being spoken or written, even a first-person narrative is, of course, a product of some reflective practice on the part of the author, shaped by existing cultural frames, and in response to assumed audiences and implicit or explicit expectations.

This may provide ancient historians with something to say about experience; it has different implications I think for Taves' project. The evidence that she brings to bear largely comprises written testimony; her description of her method is relatively brief. Specifically (p. 304), in explaining how to access a subject's initial appraisals, she describes a process of comparing texts and looking for a comparison of subevents: if the descriptions of what happened change over time, then this should prompt analysis in relation to the context in which that narrative was told; if they remain stable, they are

more likely to be "closely connected to the initial unconscious appraisal of the event." This is a thoughtful approach, necessitating gratifyingly close attention to the details of the texts, and usefully reminding us of the ways in which contexts shape narratives. Nevertheless, it raises questions, seeming, perhaps inadvertently, to suggest that an initial unconscious appraisal can occur in the absence of social learning. Those factors that remain stable across testimonies surely require as much explication as those that change between versions: to begin to develop an understanding of events, we need to set the historical actors in context; to begin to grasp their motivations, we need to begin to assemble their worldview, situated within their social relations, and constrained by institutions and social structures.

The phenomena of revelation (or any historical event) take place within a nexus of (causal) social factors; this is not to leave behind individual mental processes, but rather to consider how they interact with, shape, and are shaped by social context. To illustrate what I mean, first, take the question of the negotiation of Joseph Smith's authority. Taves provides a wonderfully detailed analysis of the various relevant narratives, and the ways in which these may indicate the changing appraisals of individual and group. A key element in the formation of those narratives, however, was the broader cultural context in which they were produced, which will have influenced both the interactions around this practice (e.g., Smith's being taken to court in 1826) and the actors' motivations (e.g., Smith's careful protection of his own authority vs. those who also claimed to have gifts of seership and prophecy). In order to better evaluate Smith's mentality, motivation, and activities - and those of the people who responded to him - we require some understanding of the world of seers that he inhabited, and the nature and extent of the associated beliefs in the region. Taves does give some glimpses of the larger society, which whet the appetite, but I would have welcomed a fuller examination of the complexity of both beliefs and social relations in which Smith was operating (e.g., Sally Chase, mentioned on p. 41 as another local seer, enlisted by a "mob" to find the gold plates, was also a very successful treasure seeker, and sister to Willard Chase, on whose ground Smith's stone was found, and who fought for ownership and return of the stone; see Bushman, 1984, p. 70).

Broader contextual material of this kind enriches our understanding of the actors and their motivations; it may also further problematize a historical analysis. For example, it is not surprising that the most detailed psychological insights into the key individuals in these case studies occur with reference to the most recent, Helen Schucman. They include reports of her "neurotic side ... anger, skepticism, and inability to change" (p. 173), and her unrequited and obsessive feelings for William Thetford. I was particularly taken by the inclusion of this detail, especially in comparison to the other key figures about whom such evaluative and emotional personal information was not given. In Part 2 of the book (p. 284), Taves considers how Schucman's desire for Thetford may have shaped the final goals of the Voice, and includes an analysis of her need for love. The overall impression is of Schucman as powerless in the face of her feelings, the object of those feelings, and even of the Voice itself. I wondered how this impression might be changed if these factors had been introduced in Part 1's descriptive analysis of the processes that generated Schucman's early visions, for example if we asked to what extent Schucman's desire to engage Thetford and keep him interested influenced her accounts to him of her earliest visualizations; or whether/how the emergence of the Voice provided Schucman with a source of authority that challenged the power of her obsession with Thetford. Could this information have been deployed to explore Schucman's motivations and her agency? Paradoxically, the very factor that appears to deepen our understanding of her motivation may also, in some ways, be taken to undermine her authority. Although in the end this is noted as being irrelevant, it is only in the case of Schucman that Taves suggests that insight into her personal motives could have raised the possibility that they were "questionable" (p. 284); in contrast, the idea that, for example, Joseph Smith may have been looking for economic gain is not discussed in the same way. Perhaps particularly, but not only, with regard to Helen Schucman, the question of the role of the cultural framings of gender and its interplay with attributions of authority seems very relevant to these case studies, and some discussion of this aspect would have added an additional dimension to this rich analysis. (Most surprising, perhaps, is its absence in the comparison of Smith and Schucman and their respective experiences and processes of translating their materials; pp. 241–269.)

While we may distil an explanation that provides some key elements of the phenomenon we wish to explore, in situ, the manifestations of that phenomenon and/or relations between concepts are inevitably more nuanced, revealing a complexity that it is necessary to investigate if we are to acquire deeper understanding. To gather a full picture of the emergence and social formation of organizations such as those under study here requires us to understand or situate the leading individual in both their personal and their historical context. Information of this kind is not simply descriptive analysis, it is a mode of explanation. It furthers our comprehension of the individuals being studied. For example, in Part 2, the question of the remarkable nature of these individuals is raised, but just how remarkable and in what ways can really only be established by a fuller examination of the context in which they developed. This would also help to unravel the group processes of co-creation that were involved in the emergence of a supernatural presence. It may be more useful in analyzing the spread of "belief" than invoking, as here, Durkheim's theory of the totem (pp. 292-295), to explain the ways in which the surrounding group relates to either the particular instantiation of the supernatural in each case or to the figure channeling it. Durkheim's theory was and remains controversial: used here, it subsumes the complicated, individual relationships to which the evidence itself attests. (I did ask myself if the identification of the supernatural figure as the totem was what was misleading here.) Similarly, the dichotomy of believer and skeptic (in-group and out-group) that occurs in some of these case studies could also be usefully nuanced. For example, in the first case study, it seems too neat to argue that the witnesses simply saw as Joseph Smith did, and are therefore evidence for "the power of the human mind to see things together in faith" (p. 65). The comparison made a few pages earlier in the book, between Smith's approach to the gold tablets and a Catholic's approach to transubstantiation, is rather to the point: even within that dogmatic institution, there is evidence of the variability of beliefs in those going to Mass (Hornsby-Smith, 1991). It may be that Joseph Smith regarded his work in this way, but with regard to the beliefs of his followers, like those who go to Mass, it seems misleading to assert that they "saw things together."

These reflections lead to some more general observations about the nature of explanation, particularly prompted by Taves' comments on the relationship of history to other disciplines, which she addresses on p. 3 of the introduction and which also structures the volume as a whole. The first part of the book, as she notes, is written as a "historian." This appears to mean "analyzing the events people consider revelatory without attempting to explain them"; the second part of the book, as Taves describes it, draws on a broader range of disciplines to create an explanation of the emergence of these new spiritual paths in naturalistic terms. I am intrigued by the way this division is characterized, since it appears to imply that history is a methodologically unitary discipline that does not bring us into the "explanatory fray" in a way that is achieved by the sciences. The idea that historians do not set out to explain phenomena is puzzling (the fifth-century BCE writer Thucydides provides perhaps one of the earliest examples of a writer of history who explicitly invokes this as his motivation). There are, of course, different philosophies of historical explanation (and it might be possible to reframe the book's two parts in these terms, Part 2 illustrative of an Anglo-American analytic tradition – the focus on mental processes offers an intriguing twist to questions of causality - while the analysis of narrative in the book's Part 1 engages more with a continental hermeneutic tradition). Moreover, historians have drawn on a broad range of other disciplines, albeit not without scholarly debate (e.g., Scott, 2012). It does not seem to be necessary to turn (as Taves) to a naturalistic explanation in order to acquire an "economical explanation that presupposes that what things feel like subjectively isn't necessarily the best way to explain them scientifically." But, more importantly, this seems to beg the question of what comprises a scientific explanation, and what is meant by (or is so desirable about) being "economical." As I have tried to suggest in this brief commentary, while more rigorous models for establishing the mental processes of individuals and the appraisal processes of small groups can provide a fascinating perspective on historical

events and the experiences of historical actors, without the social context they can offer only a partial explanation of these phenomena.

Taves has delineated some of the ways in which different explanatory approaches can run alongside one another. Her approach is pioneering: attempts to introduce theories from the hard sciences into humanities have met with substantial challenges. Here we find the mental processes of the individual clearly and helpfully explained, and a model for how their study can provide further historical insights. But the question of how to integrate these insights, exploring how individual relates to group, and then to wider society (as a social movement spreads), remains for me less clear. As Hedström and Swedberg (1998, p. 13) put it, in their discussion of social science mechanisms (conceptually similar to that of Taves, but emphasizing the inter-relationality of individuals): "The action being analyzed is always action by individuals that is oriented to the behavior of others." They propose using a number of mechanisms at different levels of social focus and process: first, situational, then action-formation mechanism described by Taves, and what level of analytical complexity that combination could achieve. Whether this particular method was employed or not, such a study that combined the naturalistic study of individuals with a fuller analysis of social context would be very demanding, and no doubt require that the writer focus on just one case study. I have to say, I really hope that Ann Taves will write this for us.

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Religion is nonsense

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The goal of psychology is to explain human thought and behavior. This includes explaining why humans think and behave religiously. About 90 years ago, Sigmund Freud (1927/1990) used psychoanalytic conceptions of the human brain to explain that religion is an illusion. Freud defined an illusion as a belief we hold because we want it to be true despite the lack of supporting evidence. He explained that religious beliefs have a strong hold on humans because they express wishes or desires arising from the unconscious mind. Freud put his faith in reason and science rather than religion. He conceded that science cannot answer every question humans might ask. He insisted, however, that scientific reasoning is the only path we have to reliable knowledge. He therefore urged humanity to abandon the illusions of religious thinking in favor of scientific rationality.

Cognitive science has made considerable progress since Freud developed his id-ego-superego model of mental operations. In light of these advances, cognitive science now proposes that religion is not so much an illusion as it is simple nonsense. The meaning of the word nonsense here is its literal reference to ideas "not based on sensory experience." Cognitive science observes that religious beliefs are the products of the brain's most ancient machinery itself rather than the products of sensory experiences originating in the surrounding world. Religious beliefs are thus by definition "nonsense." People believe strongly in nonsense because these beliefs are so intimately connected with humanity's genetically evolved cognitive modules. Religion's strong hold on humans comes from the intuitive certainty that we have about our brain's most basic (unconscious and automatic) functions even though these functions are not directly connected with objective realities.

Writing as "a historian with interests in cognitive science," Ann Taves uses these insights to unravel intriguing mysteries surrounding three extraordinary persons/episodes in American religious history: Joseph Smith and the appearance of the *Book of Mormon*; Bill Wilson and the Twelve-Step programs of Alcoholics Anonymous; and Helen Schucman's trance-channeled *A Course in Miracles*. All three revelators claimed experiences that seemingly defy reduction to secular categories. All three later proclaimed doctrines requiring belief in more-than-sensory realities. Yet, in Taves' account, cognitive science helps us set these extraordinary experiences in a fully natural context while yet appreciating how such nonsense can sometimes give rise to life-enriching wisdom.

Explanatory power of naturalism

Sound scholarship requires methodological clarity. Taves is committed to a relatively weak form of naturalism. That is, she rejects supernatural claims and instead presupposes (1) that subjective experience is an emergent property of genetically evolved brain mechanisms; (2) that the behavior of biological systems can be explained in terms of mechanisms, layered in part-whole relations, that span multiple levels of organization; and (3) that the properties that emerge at higher levels of organization may have causal effects on lower levels. I might quibble with her formulation of the third of these (i.e., the part meant to suggest a weaker rather than stronger version of naturalism) and instead follow William James (1878) in arguing that humanity's proportionately large cerebral cortex itself generates needs and interests that are not wholly tethered to the brain's evolutionaryadaptive origins. James was the first American scholar to use newly emerging insights into the brain's biologically evolved mechanisms to illuminate the enigmas of philosophy and religion. He nonetheless warned against mistaken understandings of naturalistic accounts that slavishly reduce all cultural expressions to their "survival" functions. James drew attention to the fact that the unique characteristics of human consciousness engender numerous needs and interests ("the social affections, all the various forms of play, the thrilling intimations of art, the delights of philosophic contemplation, the rest of religious emotion ... the charm of fancy and of wit") that have at least some degree of functional autonomy from the pursuit of physical survival (p. 15). The point worth emphasizing here is that Taves, like James, is reminding us that naturalism by no means ignores emergent properties of human consciousness and the needs or interests to which they give rise. Historians can be faithful to their naturalist convictions while still attentive to uniquely human needs, interests, and motivations.

Bringing naturalism and cognitive science to bear on historical episodes is inherently problematic. Twenty-first-century historians do not have direct access to the brain mechanisms underlying the putative experiences later reported by Joseph Smith, Bill Wilson, and Helen Schucman. For this reason, there is virtually no mention of cognitive science until p. 251 of a manuscript less than 300 pages long. In fact, less than 6% of this text is concerned with explaining relevant aspects of cognitive science or using them to explicate the emergence of extraordinary religious messages. The bulk of *Revelatory Events* is necessarily involved with the heavy lifting of historical reconstruction to

provide an as-clear-as-possible understanding of just how revelatory episodes bordering on the delusional were in all likelihood expressions of quite natural brain mechanisms. Taves does this by introducing a few theories at the fringes of contemporary cognitive science. First and foremost, she relies on the theoretical writings of Philip Gerrans, a philosopher who has a keen interest in cognitive science but who is not himself an experimental psychologist. Gerrans has drawn attention to what he calls the brain's "default mode network" (DMN), a "system that evolved to allow humans to simulate experiences in the absence of an eliciting stimulus" (2014, 67). The ability to think abstractly and hypothetically conferred tremendous adaptive advantages. The DMN allows us to recall past experiences, imagine alternative behavioral strategies, and compare potential outcomes. In our normal waking state, the DMN simulates past and future experiences, pointing us toward behavioral strategies that are most likely to meet our needs and interests. Occasionally, however, such as happens while we dream or are in an altered state of consciousness, such default cognitive processing conjures up vivid imagery unchecked by "reality monitoring." That is, under some circumstances the brain's own internal, automatic mechanisms for simulating reality become hyperactive even without new input from our physical senses and without the conscious mind being aware that these vivid scenarios are hypothetical rather than actual. In these instances, the mind is flooded with rich, emotionally salient images that are literally nonsense (i.e., arising from the mind's own processing mechanisms without sensory input).

Taves explains how some individuals experience sudden eruptions from our "default mode network" by comparing them and their experiences to what we know about highly hypnotizable subjects. Research on highly hypnotizable subjects shows that some individuals are unusually adept at shifting attention in ways that afford them ready access to the brain's internal processing mechanisms such as the DMN. For this reason, they become increasingly capable of "receiving" rich simulations of hypothetical scenarios that strike them as exceptionally real even though this imagery does not originate in the physical world surrounding them. These peculiar states reveal a vast mental network removed from the world of shared, public experience. These peculiar states, in other words, are vivid and emotionally charged displays of imagery generated by cognitive mechanisms far removed from our everyday waking reality.

Revelatory Events is without parallel in its careful historical reconstruction of the process whereby peculiar experiences occurring to Joseph Smith, Bill Wilson, and Helen Schucman came to be interpreted as knowledge emanating from divine sources. Taves succeeds admirably in elucidating why some individuals suddenly have vivid experiences of a nonsensory "presence." What she does less successfully is draw on the vast findings of cognitive science that explain why the brain's "default" mechanisms imbue experience with patently religious qualities. Nowhere does she pull upon the highly relevant research of Pascal Boyer (2001), Jonathan Haidt (2012), Steven Pinker (1999), Scott Atran (2002), Justin Barrett (2007), Ara Norenzayan (2013), or the work of Lakoff and Johnson (1999). She mentions Tooby and Cosmides (2005) only in passing. All of these researchers have contributed to our understanding of the evolutionarily older cognitive mechanisms that structure and guide human cognition automatically, spontaneously, and without conscious awareness. All of these researchers, furthermore, have contributed to our understanding of how these ordinarily unconscious cognitive mechanisms predispose the human brain to religious (i.e., highly dualistic, anthropocentric, assuming that the mind controls events in the physical universe, rich in fantasy, a proclivity for discerning human-like causality and intentionality even when they are not present, etc.) rather than scientific conceptions of the world. All of the empirically grounded information generated by these scholars would have enriched Taves' explanation of why the human brain, when attention shifts away from "reality monitoring" and sensory-connected processes, suddenly reveals rich imagery generated by its own innate processing mechanisms that quite naturally strike us as religiously salient. Cognitive science provides us with empirically grounded information about the brain's innate tendencies to imbue experience with supernatural qualities. Taves' decision to confine her "interests in cognitive science" to Gerrans' somewhat speculative writings weakens her ability to showcase how twenty-first-century scholars might go about explicating religion in a fully naturalist context.

I might draw attention to just two fairly recent publications that amplify Taves' basic argument that religious/spiritual experiences "reveal" experiential aspects of the brain's own, innate processing mechanisms. Studies by Saucier and Skrypinska (2006) and by Willard and Norenzayan (2017) show that individuals who are prone to the kinds of spiritual experiences described by Smith, Wilson, and Schucman (proportionately) utilize brain mechanisms very differently to nonreligious people. More specifically, Saucier and Skrypinska found that individuals who measure high in subjective spirituality are disproportionately characterized by the capacity for absorption (i.e., readily have attentional shifts such as Taves deems critical to accessing our intuitive "default mode" cognitive mechanisms), magical ideation, fantasy-proneness, self-forgetfulness, and transpersonal identification. Willard and Norenzayan similarly found that individuals measuring high in subjective spirituality were far more likely than their nonreligious counterparts to rely not on analytic rationality but on a closely linked network of intuitive cognitive mechanisms that make people more likely to see certain things in the world as supernatural in origin: mind/body dualism; mentalizing (projecting mental states to nonhuman agents and objects); anthropomorphism (over-extending human-like characteristics to nonhuman agents); and magical ideation. They found, moreover, that higher scores in dualism and mentalizing are great predictors of likeliness to convert from being nonreligious to a strong belief in the supernatural, as would have been the case with early converts to all three of the movements Taves covers.

In sum, Taves is to be commended for articulating the explanatory power of a naturalistic perspective on religion. She is to be further commended for understanding that newly emerging information about our genetically evolved cognitive mechanisms fleshes out this naturalist perspective on religion (even if she overlooks empirical studies that would have greatly contributed to her overall argument). Yet make no mistake here. Taves' historical framework is subtly subversive. She is coaxing historians and other colleagues in the humanities to step into the twenty-first century and utilize a multi-level model whose foundation consists of the "building blocks" of biological and psychological knowledge about the mechanisms guiding human thought, feeling, and behavior. To this extent, she is quietly urging humanities scholars to abandon postmodernism and its antiquated mantra that every human is born a *tabula rasa*. Importantly, Taves shows that by adopting a fully naturalist perspective, the humanities are still alive and well. The humanities, after all, are in a special position to shed light on the environmental nuances that elicit, repress, or modify the expression of cognitive mechanisms. They can show us that the human brain generates needs and interests that are at best loosely tethered to matters of survival and differential reproduction and hence constitute emergent species' characteristics. And they can continually remind us that humans live over time and through community, necessitating that humans engage in normative thought as they ponder how they "ought" to live.

Naturalism and the value of nonsense

Professor Taves has brilliantly fashioned a historical framework capable of explaining the emergence of new spiritual paths in naturalistic terms. Even more to her credit, she demonstrates how naturalism helps us appreciate, and assess the value of spiritual paths. Cognitive science emerges from evolutionary-adaptive understandings of the origin and nature of human consciousness. As Steven Pinker succinctly puts it, "the mind is what the brain does … the mind is organized into modules … their operation was shaped by natural selection to solve the problem of the hunting and gathering lives led by our ancestors" (1999, p. 21). That is, our brains are not designed to discern cosmic truths. They are designed to solve the kinds of adaptive problems we have faced over the course of human history.

Taves' naturalism, despite rendering revelatory events nonsense, is in a perfect position to appreciate why their adherents found them to be of special value. Taves reconstructs the successive stages through which initial experiences of a "presence" gradually gave rise to new spiritual paths by paying particular attention to the way that these emerging beliefs solved challenges faced by the revelators and their followers. These challenges were myriad. Some were directly related to sheer survival (e.g., sobriety) or the construction of communal relationships (e.g., early Latter-day Saint social organization). Yet others met needs and interests arising from cognitive abilities unique to emergent properties in human evolution (e.g., fascination with mystery, building abstract intellectual systems).

Taves' naturalism thus highlights the value of the revelatory events underlying the Latter-day Saints, Alcoholics Anonymous, or A Course in Miracles in terms of what William James would describe as "their extraordinary influence upon action and endurance, to class them among the most important biological functions of humankind" (1902/1985, p. 399). The cognitive mechanisms peculiar to religious constructions of reality may be oblivious to the lawful operations revealed through scientific inquiry, but they are quite attuned to navigating the vicissitudes of small-group social interactions. It is important to remember that a great deal of the evolutionary development of the human brain happened in a relatively brief span. As the human cerebral cortex became more complex, it could create ever-more complex socio-cultural environments. The more complex the socio-cultural environments, the greater became the selective pressure favoring ever-more complex brains. One implication is that our innate/default/ intuitive brain mechanisms are very much geared to adjusting individuals to the social group. Consider, for example, how the genetically evolved mechanisms structuring the emotion of guilt so spontaneously and powerfully create internal tensions relieved only when individuals "repent" and readjust to the social order. Cognitive science has shown that humans have innate, prosocial mechanisms that operate intuitively and prior to conscious deliberation. Thus, any event that suddenly "reveals" our brain's most automatic, intuitive cognitive mechanisms is almost certain to reveal pathways to achieving more harmonious relationships.

What Taves shows, then, is that although religion may be nonsense, it is often extremely valuable nonsense in its capacity to guide humans to productive relationships with the surrounding world. Naturalism generates a framework for not just describing, but also assessing religious beliefs in terms of their adaptive value. *Revelatory Events* reminds us that scholarly interpretations of religion too often focus on the "supply" side of religious beliefs instead of their "demand" side. Taves shows us that understanding the emergence of new spiritual paths requires sensitivity to how new beliefs are assimilated and how they function in terms of guiding us to productive relationships with the surrounding world. Taves' naturalist perspective is thus once again subtly subversive. It suggests that scholarly studies of religion need not be purely descriptive. Informed by cognitive science, a naturalist perspective provides functionalist criteria for assessing and evaluating the value of spiritual paths.

Cognitive-science-infused histories of religion: further possibilities

Cognitive science has shown us that our brains were shaped by natural selection to solve persisting adaptive needs such as (1) identifying causal agents in our immediate surroundings, (2) forging tightly knit coalitions that in some way solve the "free rider" problem, (3) attaching ourselves to protective figures, or (4) ensuring successful mating patterns. Modern religions might be considered extended phenotypes (i.e., external or observable phenomena resulting from the interaction of genes and the environment such as beaver dams or bird nests) of the genetically evolved mechanisms that enabled our ancient ancestors to solve these recurring problems. Boyer (2001) and Atran (2002) have provided compelling explanations of how the brain's neural networks for agency detection help us understand the near-universal phenomenon of believing in nonsensical gods. Norenzayan and his research colleagues (2016) and Jonathan Haidt (2012) have argued that modern religions are in large part anchored in cognitive mechanisms that evolved to ensure the formation of tightly knit social coalitions. Lee Kirkparick (2005) has synthesized research showing that humanity's evolved attachment mechanisms are yet another cognitive substrate of modern religion. And, too, our cognitive mechanisms guiding sexual and reproductive behavior also express themselves in religious ways (Fuller, 2008; Schmitt & Fuller, 2015).

The point here is that we have only begun to appreciate how newly emerging information about our genetically evolved cognitive mechanisms shapes humanity's religious life. Hopefully Taves will inspire other religious studies scholars to examine other proximate causes of religious experience: neurotransmitters such as dopamine and serotonin; altered neurophysiology resulting from practices ranging from meditation to ecstatic dance; cognitive changes triggered by innate emotion programs such as guilt, fear, or wonder; altered ideation and enhanced social bonding resulting from ritual use of intoxicants; or devotional attachments forged by the brain's mechanisms for sexual arousal. As I have previously demonstrated (2013, pp. 63–75), these additional aspects of humanity's innate cognitive mechanisms provide answers to many of the enigmas posed by the Latter-day Saints' historical record that were outside the scope of Taves' text: how did Joseph Smith initially attract those hungry for experiential and experimental approaches to religion (e.g., via rituals eliciting the discrete emotions of awe and wonder; ideas and experiences attractive to those high in Openness to Experience)? Just how did the fledgling Latter-day Saints community bond otherwise disparate individuals into a cohesive community (e.g., use of bodily mechanisms that transmute shared bodily movement into social bonding; strategic use of the camaraderie-building effects of alcohol use)? And just why did a religious system so blatantly nonconformist in its origins eventually become one of the nation's most culturally and politically conservative faiths (e.g., muting of awe-inspiring ritual in favor of low-arousal rituals; prohibition of alcohol use; gradual defection of those with the highly heritable Openness to Experience in favor of individuals more disposed to heritable traits Agreeableness, Conscientiousness, and Authoritarianism)? The point is, newly emerging information about humanity's genetically evolved cognitive mechanisms sheds light on any number of puzzles posed by the world's spiritual paths.

I would like to close by underscoring Professor Taves' call for historians and scholars of religion to understand human religiosity from a naturalist perspective. Naturalism shows that humanity's innate cognitive mechanisms exert a powerful influence on how we think, feel, and behave. It thus reveals the vast extent to which religious thought, feeling, and behavior is nonsense. Ann Taves points the way for scholars to appreciate this influence and hopefully help us assess the conditions in which these innate mechanisms lead to productive engagement with the surrounding world or the conditions in which they should be discarded as the sheer nonsense that Freud had in mind some 90 years ago.

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Bridging qualitative and quantitative approaches to religion

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Introduction

Taves' "Revelatory Events" (2016) is definitive of the current state of high-quality research in religious studies and the cognitive science of religion (CSR). She blends cognitive science (CS) with a deep understanding of the history of Mormonism, Alcoholics Anonymous, and A Course on Miracles to constrain interpretation of the available materials and frame the histories of these groups. Her work presents a great opportunity for reflecting on the current trajectory of the field. However, as a historian interpreting her data within a cognitive framework, she also produces new testable hypotheses that can be taken into the lab. I argue that this represents a new form of religious studies, and defend the point in the conclusion. Primarily, I use this opportunity to further "organize" Taves' theory by (1) outlining testable hypotheses that can be investigated via lab studies and (2) outlining testable hypotheses that can utilize databases to store data about religious groups. Besides standing on their own as interesting and useful studies, the empirical testing of the psychological mechanisms can inform (and validate) the mechanisms of agent-based computational architectures. Testing historical claims using contemporary databases can validate the overall output of a computational model of her theory. Such a model could serve as a codified "re-translation" of Taves' computational theory into a programming language (e.g. java), benefiting from the specificities and logical requirements that come along with the use of such a language. I end with a reflection on the disciplinary and theoretical boundaries between religious studies and the scientists who engage with it.

Part 1: potential in the lab

Throughout the text, Taves presents a theory of new emergent spiritual traditions that echoes theories such as Stark's (1996) theory of new religious movements. However, her focus on revelatory experiences from individuals who would later – in some way – take a leadership role pushes Stark's theory into new territory. In so doing, she presents a number of critical mechanisms of how individuals act and interact. In multiple passages, she provides hypotheses that I believe are testable using methods from psychology and neuroscience. I present these key hypotheses in Table 1. This is not intended to be an exhaustive list of her hypotheses. Rather, it is intended as a resource for future

Table 1. Empirically testable hypotheses drawn from Taves' presentation fit for lab-based data collection.

Tuble 1. Empirically testable hypotheses drawn nom raves p	resentation ne for lab based data concetion.
Research question/hypothesis	Potential method of inquiry
Individuals who are working as channels can turn off and on their "stream" of information and pick it up later with consistency (p. 250).	Have individuals claiming to have this revelatory ability engage in recording information over multiple sessions, interrupted both by time and by interruption tasks.
those created by the same author under other conditions.	with those that were not. Using text analytics and machine learning, these can be compared for similarities.
Texts created under revelation are able to execute "a complex overall plan without evident planning" (p. 250).	Have authors generate "revelatory" writings under different conditions of cognitive load. This should interrupt executive function abilities so that cognitive load conditions should interrupt any conscious planning.
Revelations can come from different modalities (pp. 250–251).	Utilize methods for investigating synaesthesia to test for associations between word "revelation" and perception by non- linguistic systems (inspired by quote on p. 251).
Production and perception of revealed texts are disassociated.	Utilize methods or case studies to investigate individuals who do not have normal connectivity or functioning in Werneke's area and/or Broca's area (such as those who have survived strokes) as these have been associated with comprehension and production of language (respectively). Testing subjects for similar phenomenological features as those reported and described by Taves may help uncover associations between the two phenomena. Utilize an adaptation of the Stroop task to instruct individuals to write certain color words while presenting them in dissociated fashions (p. 254).
External instruments can act as cues to elicit different "cognitive contexts" where a sense of revelation is fostered (p. 264).	Individuals can go through a training period to produce knowledge in the presence of a specific instrument (the function of which should be unrelated to the topic of information). Then, using an implicit association test we can see if the presence of this object affects association performance. fMRI studies can also test for effects of different brain regions having greater activation in the context of the instrument. The areas affected should be those discussed in Taves, Chapter 11.
"Alternative selves can be understood as <i>group-identified</i> <i>selves</i> , that is, as selves that were <i>motivated</i> to speak for the group as a whole and thus to guide the emergence of the group as a group" (p. 271, emphasis in original).	In this way, we can utilize individuals who take on these "alternative selves" using psychometric questionnaires. However, we should not only deploy social identification measures, given the established relationship high-fusion individuals and one being motivated to take action on behalf of the group (Swann & Buhrmester, 2015), we should expect "alternative selves" to be highly fused to the group, not only highly identified. This may be hard to test as one may only be asking the question to the individual, not the "alternative self," as such, one may wish to start such a test with individuals with religiously themed dissociative identify with the alternative selfs" message (categorical tie). However, they may also be fused to the idea of the alternative self as a conceptual tie, whereby they become "fused" to an idea, or the idea of the alternative self becomes a "sacred value" (cf. Sheikh, Gómez, & Atran, 2016).
Individuals will convert to a group and take on a new identity as they shift their goals and motivations (p. 274).	Those individuals who are on the periphery of the group's social network will be more likely to convert to the extent that they share goals and motivations with the group. This can be tested using fieldwork and social network reconstruction methods.

researchers to empirically test Taves' key claims and bring the study of new religious movements into the forefront of CSR specifically, and the scientific study of religion generally (cf. Lane, 2009; Stark & Bainbridge, 1987; Upal, 2005).

Part 2: potential for database analysis

Currently, there are (at least) two major databases looking to curate quantitative and qualitative data about religious groups with a worldwide focus that could provide data for testing Taves' claims:

SESHAT (Seshat Databank, 2017) and DRH (The Database of Religious History, 2015). Here, I propose a set of questions for incorporation into DRH that could be used to test some of Taves' key claims (I focus on DRH as it is currently the most developed, open, and its architecture, which is beyond the scope of the current critique, provides a better opportunity for efficient analysis and validation of computational models).

Incorporating these questions will also begin to remedy a critical limitation of current databases, namely that their questions are not geared toward the formation of new religious movements. While the databases in the field have been proposed to understand the growth and "evolution" of religions over time, their inability to capture key aspects of religions when they are in their most formative stages is problematic. This represents a "start-up" problem of sorts, as the general framing implicitly assumes that they are addressing already established religions. As such, it is difficult to test why a religious tradition grows and - as these databases purport to investigate "cultural evolution" why some religions fail; this critical data could provide insight into the as-yet undefined cultural fitness metrics on social information assumed by cultural evolutionists. Taves notes a similar limitation regarding the DSM, which also only addresses religions as something pre-existing and established (2016, p. 268). Perhaps, in the future, databases could collect data at annual time slices and not rely on binary "trait-like" data input. Clearly, such questions are fruitful for confirming statements from cultural evolution, but these are insufficient as causal analyses in any case as they cannot rule out competing theoretical frameworks such as evolutionary psychology; as such, they might establish necessary but not sufficient evidence for cultural evolution as currently formulated. How such an analysis could go beyond the models previously developed in the field is yet to be seen.

In Table 2, I present key questions posted by Taves, and related sub-questions. I also present what sort of data could be collected by the DRH to help test these claims, and finally, whether it is currently available within the DRH. If it is not available, I offer a proposition as to where it could be inserted within the current structure of the DRH. I hope this adds more utility to the dataset and helps to facilitate a better foundation for between-group comparisons.

I end this section with a call for the collection and curation of machine readable transcriptions or copies of religious texts. When possible, these texts should utilize the geo-location and time-stamp functions already in use in the database. Data such as the genre of the text, potential authors, and the extent to which the text is itself a text with texts in it (e.g., the New Testament) or if it is itself part of a larger corpus (as the gospels are to the New Testament). This can allow for a deeper analysis and understanding of religious texts. Such analysis can further earlier work, such as that by myself (Lane, 2015; Lane & Martin, n.d.), Slingerland (a leader on the DRH project), Nichols, and Neilbo (e.g., Nichols, Lynn, & Purzycki, 2014; Slingerland, Nichols, Neilbo, & Logan, 2017).

Part 3: reflection on the field at large

The interdisciplinary nature of Taves' work provides the occasion for a higher-level reflection of the field. Her ability both to provide historical analyses of the highest quality and utilize them to generate new testable hypotheses blurs the boundaries in the field of religious studies, which is becoming (I would argue stubbornly) entrenched in outdated (and at times fallacious) demarcations of disciplinary boundaries – in many ways reminiscent of the earlier *Methodenstreit* of economics. The first demarcation in the field can be taken to be that between theological and non-theological approaches, where theological approaches are often viewed as engaging in apologetics (either implicitly or explicitly) and operating with the acceptance (again implicitly or explicitly) of causality attributed to non-natural forces. The non-theological study of religion is largely marked by three subfields: history of religions (within which I include hermeneutics and textual scholarship), philosophy of religions, and the scientific study of religion. Whereas the term *Religionswißenschaft*, which often takes the form of a *Geisteswißenschaft*, can cover the philosophy and phenomenology of religions, it often fails to capture the history of religions (*Religionsgeschichte*), which is also a *Geisteswißenschaft*. The scientific study of religions, however, is more aligned with a *Naturwißenschaft*.

Question	Sub-questions	Data required	Currently available within DRH?
Do members believe that there is a non-human entity/ presence acting directly in the group? (p. 224)	Is that entity/presence acting through a person?	Y/N	No. Beliefs – Supernatural Beings – Question 1 – Question 5 (Additional Question)
(in group: (p. 22+)	Is that entity/presence acting through an object?	Y/N	No. Beliefs – Supernatural Beings – Question 1 – Question 5 (Additional Question)
	Does this entity/presence guide the group's beliefs?	Y/N	No. Beliefs – Supernatural Beings – Question 1 – Question 5 (Additional Question)
	How do members discern when the entity/presence is acting in the environment? (p. 230)	Freeform(?)	No. Beliefs – Supernatural Beings – Question 1 – Question 5 (Additional Question)
	How do agents interact with the entity/presence (p. 230)	Freeform(?)	No. Beliefs – Supernatural Beings – Question 1 – Question 5 (Additional Question)
	If objects or instruments are used to facilitate interactions with the entity/presence, what instruments are used? (p. 259)	Freeform(?)	No. Beliefs – Supernatural Beings – Question 1 – Question 5 (Additional Question)
	Are the aforementioned instruments attributed their own supernatural qualities independent of their user? (i.e., it could satisfy the criteria for a "special instrument" in the sense of ritual competence theory [Lawson & McCauley, 1990]).	Y/N	No. Beliefs – Supernatural Beings – Question 1 – Question 5 (Additional Question)
Does the entity/presence guide the creation or editing of sacred texts? (pp. 224,	Are these texts created through a process of channeling? Are the entities/presences attributed	Y/N Y/N	No. General Variables – Scripture – Question 1 No. General Variables –
229)	authorship of the sacred texts? Do members who accept the text as created by the entity/presence view the acceptance of this text as criteria for group membership? (n. 238)	Y/N	Scripture – Question 1 No. General Variables – Scripture – Question 1
	Do group members tie the existence of this entity/presence to their own sense of identity?	Y/N	No. General Variables – Scripture – Question 1
Do non-group members in the group's larger cultural context believe in similar	Do they accept that the entity/ presence in question exists?	Y/N	No. General Variables – Membership/Group Interactions
entities/presences? (p. 224)	Do they posit their own variation of the entity/presence?	Y/N	No. General Variables – Membership/Group Interactions
Are spiritual visions accepted as authority in the tradition? (p. 225)	Do only leaders or select members of the hierarchy have these visions? Can anyone have these visions?	Y/N Y/N	No. Beliefs – Supernatural Beings – Question 1 No. Beliefs – Supernatural
· · · ·	How frequently are visions experienced by the members of	Rate	Beings – Question 1 No. Beliefs – Supernatural Beings – Question 1
If leaders have a vision, is it accepted as cannon? (p. 226)	the group? Is the process to juridicate what visions become canon?	Y/N	No. Beliefs – Supernatural Beings
	How long before visions become cannon?	Time period	No. Beliefs – Supernatural Beings
	How many outsiders join each year?	Rate	No. Size and Structure

Table 2. Em	pirically	testable	hypotheses	drawn fi	rom Ta	ives'	presentation f	fit for	historical	and	database	data	collection.
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Table	2.	Continued
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Question	Sub-questions	Data required	Currently available within DRH?
How open is the group to outsiders? (p. 227)	What are the conditions for group acceptance? (p. 280)	Belief profession Ritual initiation Other	General Variables – Membership/Group Interactions –Question 2
	What, if any, are the conditions for continual group membership?	Attendance at group events such as rituals (and if so, how costly are the rituals?) Regular belief profession Displaying symbols publicly	General Variables – Membership/Group Interactions –Question 2
	Can you be a member of the target group and another group? Or is membership mutually exclusive to alignment with other groups? (p. 282)	Y/N	No. General Variables – Membership/Group Interactions –Question 2
How many people serve as authorities in the group?	What percentage of the total group population is this?	Numerical	No. General Variables – Size and Structure
	Is interaction with a suprahuman presence/entity restricted to authority figures?	Y/N	Beliefs –Supernatural Beings – Question 1 – Question 2 –Question 9
	Does the group recognize a formal internal hierarchy?	Y/N	General Variables –Size and Structure – Question 4
What topology of group formation best represents the group?	Are group members generally distributed or highly centralized?	Scale free Hub-and-spoke Fully connected Random network Beta distribution (Arnaboldi, Passarella, Conti, & Dunbar, 2015; Gonçalves, Perra, & Vespignani, 2011)	No. General Variables – Size and Structure
What major challenges did the group face? (p. 274)	Were resource challenges important to the group?	Y/N	No. Society and Institutions
	Were social coordination challenges important to the group?	Y/N	No. Society and Institutions
	Were economic/trade challenges important to the group?	Y/N	No. Society and Institutions
	Were political challenges important to the group?	Y/N	No. Society and Institutions

Given this loose descriptive framework of the study of religion, Taves, whose work would typically fall within *Geisteswißenschaften* as a historian of religions, utilizes careful observation and keen theoretical work to generate new testable hypotheses (and these are not limited to those historical claims I discuss above; Chapter 11, for example, is packed with claims testable in psychology and neuroscience labs). In this way, she bridges the gap and – I argue – fruitfully produces a work of *Naturwißenschaft*. Taves' work is not alone here; in the past 30 or so years the field of CSR has produced multiple works from scholars of more traditional *Geisteswißenschaft*, such as anthropology (e.g., Guthrie, 1993; Malley, 2004; Malley & Barrett, 2003; Pyysiäinen, 2009). What ties these works together is taking a purely and explicitly naturalistic approach to the study of religion that incorporates both *Geistes-* and *Naturwißenschaften*. This relatively new approach is not common to the academic study of religion. Work that straddles these boundaries, I argue, is best captured by the (Czech) term *religionistika*, which is used to denote departments in the Czech Republic engaging in the naturalistic study of religion (both *Geistes-* and *Naturwißenschaft*) as *Ústav religionistiky* (a department of religion) is blatantly juxtaposed with *teologicka* (theology).¹

It is within this emerging context that we observe a shift in the study of religion from one that could be generally described as a study of *Geisteswißenschaften* to one that blurs the boundaries between the humanities and sciences, creating a conciliant study of religion: *religionistika*. Within

this framework we can situate Taves' work within CS defined as a scientific approach focused on information processing (p. 273). I applaud her employment of this conservative definition; it strengthens her argument and contextualizes her theoretical contribution by providing a strong theoretical boundary for future work.

By adopting a conservative definition of CS, she does not leave room for theoretical promiscuity – or the adoption of points from theories that may not operate with compatible assumptions – to defend her position. She uses this cognitive approach to push far outside of her traditional historical roots and produce an elegant formalization of her theory in the Appendix. It is my hope that through the review here a quantitatively rooted historical approach can be used to test her claims and the causal mechanisms underlying these historical trends can – in turn – be elucidated through psychological study. It is my ultimate hope – in line with earlier proposals (Lane, 2013) – that historical data and psychological mechanisms be used in conjunction with computational models, in this case with the historical data providing the occasion to validate the output of the model, the psychological data providing the operation to validate theory and (2) provide insight into historical contexts by computational experimentation and investigating potential historical counterfactuals to better understand the processes of our past.

Note

 Let us not assume here that the term is without bias; much of the current scientific approaches to religion in Czech and Slovak institutions is rooted in communist ideology and the anti-religious ideologies of "scientific atheism" (Bubík, 2015, sec. 3.5). However, this has led to a careful and honest critique of researcher bias that appears to foster a study of religion open to both scientific and non-scientific approaches (see Bubík, 2015 for a great overview of the history of religious studies in the Czech Republic).

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RESPONSE

(Revelatory) events: a response to commentators

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I want to thank all five commentators for their careful, close readings of the book, their elaborations on various points, and their critical commentary. All approached the task in a very constructive way, motivated I suspect by the sense that we can actually correct, refine, and build on each other's work in a fashion that I find more common in the sciences than the humanities. I find this emerging sense that we are involved in a common enterprise, which we are approaching from different disciplinary vantage points, a heartening sign that our bridge-building efforts are bearing fruit. In an effort to further the conversation, my response is divided into several parts – general methodology, definitional matters, explanations, theory, and moving forward – that cut across the various commentaries.

Overall methodology

Although I approached the methodological issues with as much transparency as I could muster (within the space allowed by my editor), DeConick, Lane, and Deeley provided extremely valuable elaborations from their respective disciplinary vantage points. I would like to reinforce some key issues with a few further reflections.

Description and explanation: DeConick's tracing of her own journey from doing "regular" history to doing cognitive history both reflects my own journey (as she recognizes) and also highlights some

of the particular issues surrounding explanation that beset scholars of religion. Specifically, some in religious studies argue that we should limit ourselves to in-depth descriptive analysis (or "thick description" as Clifford Geertz called it) and criticize efforts to explain phenomena as "reductionistic." As DeConick's commentary makes clear, this is especially the case in relation to texts that make supernatural claims that some scholars do not want to see explained in non-religious terms. Explanations inevitably *are* reductions, but in religious studies the general tendency has been to view them pejoratively.

I divided the book into two parts to demonstrate that we do not have to choose, as Lane explains, between Geisteswissenschaft and Naturwissenschaft. In explaining what I was doing, however, I characterized the division in a way that Eidinow, reading the book as classicist and a social historian, found puzzling, since I seemed "to imply that history is a methodologically unified discipline that does not bring us into the 'explanatory fray' in a way that is achieved by the sciences." Although I did inadvertently give this impression, I actually agree that historians can and do enter into the explanatory fray. They do so, first, by ruling out divine causation as a legitimate historical explanation, and, second, by reconstructing the interplay of natural processes - typically contextual factors - that they think can explain events. As I will discuss more fully below, Eidinow would have liked to see the movements I discussed contextualized more fully. In so far as further contextualization would have served to better explain why the processes unfolded as they did, it would properly belong in the second part of the book. In the first part of the book, I limited myself to reconstructing the historical development of the movements from the points of view of those that were involved, whether supportive or critical. Historians often blend these two approaches, but I would argue that separating them has advantages. First, it allows us to clarify what it is we want to explain before attempting to explain it. As Deeley stresses, a "critical phenomenology remains an essential first step in identifying the types of experience and cognition that any explanatory theory must account for." Second, it allows historians with differing explanations of the phenomena, e.g., Latter-day Saints (LDS) and non-LDS historians, to discuss and refine their reconstructions in light of the historical evidence.

Explanation and analogy: I very much appreciate Deeley's discussion of the use of analogy in scientific explanation, in general, and experimental models, in particular. I want to highlight his statement that explanatory models rest on identification of patterns of similarity and difference between two instances that belong to an "overarching category or 'supertype' which defines the differences they share in common." As this makes clear, scientific explanation is fundamentally a comparative exercise. Many in the humanities have retreated from both scientific explanation and all but the narrowest of comparisons. Deeley (as a neuroscientist) and I are very much on the same page on this issue, which suggests to me that there is productive work that could be done to help humanities scholars adopt a more expansive approach to comparison and scientists to avoid equating instances simply because they share features in common. In querying the relationship between suggestion in hypnosis research and events in the world, we are also thinking along very much the same lines. Neither of us wants to equate the two situations, instead we want to see what we can learn from controlled research studies that might help us to better understand "the suggestive processes, beliefs, and implicit associations and expectancies" that inform experiences in the world.

Definitional matters

The title: I have to confess that DeConick is right to point out that the title of the book makes an implicit substantive claim and, thus, undercuts the attributional approach I advocate in this and earlier work. I struggled with this issue, but, in the end, I decided that "events deemed revelatory" was too awkward to use as a title, so I went with something that I thought sounded better. *Revelatory Events Reconsidered* would have been another option, but that seemed a tad repetitious. Maybe it should have been (*Revelatory) Events*, but I didn't think of that until now!

Definition: Eidinow tests my definition of revelatory events in light of the dreams recorded at Epidauros and questions whether it is adequate. In offering this example, Eidinow highlights important issues related to my distinction between claims that are commonplace and empirically verifiable and those that are not. In the case of a dream in which a god relays a message (new knowledge), the new knowledge is empirically verifiable in so far as the dreamer recounts some information upon waking that people agree is new. The claim to have received new information from a figure in a dream, albeit uncommon, is commonplace in the sense of noncontroversial in so far as many people occasionally have "big dreams" in which a dream character conveys something new. The potential controversy surrounds claims regarding the dream figure (the source of the new idea): is the figure in the dream actually a deity? Do deities exist? If so, can they appear in dreams? If they can, did the deity in question appear in this particular dream? Because many ancient Greeks thought that gods did convey important information through dreams, such claims were particularly noteworthy (hence all the stelai); given their beliefs about dreams, the debates focused on whether a god had actually appeared in particular cases (hence the discussions on the *stelai*). That some would argue for the divine identity of the figure based on the nature of the communication (the new idea) seems totally plausible.

Explanations

Respondents suggested explanations that I might have discussed at (greater) length, including mental illness or trauma (DeConick), fraud (DeConick, Eidinow), gender (Eidinow), and authority (Deeley). With Wilson and Schucman, I think it is clear that they had unusual mental abilities, regardless of whatever else was going on. Wilson had unusual experiences before and after his sudden experience at Towns Hospital and Schucman had unusual experiences before she met Bill Thetford. Life circumstances – childhood trauma in Schucman's case or the side-effects of withdrawal in Wilson's case – may have precipitated or enhanced their tendencies. Smith's case is much more complicated because the evidence is so mixed and the stakes so high for both believers and their critics. Given that, I deliberately chose to construct a mediating interpretation based on explicitly stated premises, i.e., that there were no ancient golden plates and that he was not a fraud. As I tried to make clear, I am not wedded to the latter premise, but I felt that it was important to make the case for an interpretive option that I think should be considered along with the others.

There is definitely more that could be done with issues of gender in relation to all three case studies. Schucman's desire to keep her role with respect to the *Course* secret not only reflected her need to maintain her credibility as a scientist, but her credibility as a *female* scientist. Moreover, had I spent more time on later developments in the other two cases, I could have compared Smith's quasi-secretive plural marriages, Wilson's serious affair with another woman late in life, and Schucman's unrequited love for Thetford or, more precisely, her desire to keep him close via her spiritual gifts. Authority is also a crucial factor in all three cases. As Deeley points out, these movements would not have got off the ground if their claims had been asserted in more tightly controlled contexts. Since men typically dominate both religious and political institutions, the legal separation of church and state in the US gave women more room to make claims outside established religious traditions. Still, as others have shown (Wessinger, 1993), women's abilities as visionaries and mediums were more widely recognized than their ability to lead the movements they founded.

Theory

Gerrans: Fuller questions my use of Gerrans' theory rather than more "mainstream" cognitive science of religion (CSR) literature. I drew on Gerrans' work late in the writing process, because – with some modifications – it allowed me to suggest how the components I had identified were interconnected. There may be better ways to do this, but as far as I am aware the "mainstream" CSR literature does not respond to this need due to its focus on universal processes (evolved, cognitively natural mechanisms).

This focus makes it of limited value in accounting for the role of unusual experiences in generating new religious movements (NRMs). The individual difference studies he cites are directly relevant (and I appreciate the references), but that recent literature is congruent with the literature on positive schizotypy and NRMs that I did cite. The early followers in each of these movements likely did have these characteristics. For scholars such as Eidinow, however, individual differences would not be enough of an explanation. We have to go on to ask why Smith's early supporters followed him and not the prophet Mathias or any number of other visionaries of that era who were not as successful. Or why Judith Skutch felt that Schucman had the answers she'd been longing for rather than someone else. Or why Bill Wilson's sudden experience, whatever caused it, enabled him to stop drinking.

Event cognition: Although humans clearly have evolved pan-human mechanisms for learning and acquiring cultural knowledge, acknowledging this is not the same as demonstrating how cultural knowledge, internalized in particular cultural schemas, leads individuals to appraise events in one way as opposed to another. Within the humanities, we tend to focus on the post-hoc interpretation of experiences. The real challenge, though, is to understand how learning (prior experience) affects our immediate sense of what is happening. As I suggested in the book (see Appendix), and developed in a companion piece with Egil Asprem (Taves & Asprem, 2017), I think that the research on event cognition provides a helpful framework for thinking about how cultural schemas unconsciously inform our working models of events *as they unfold* and lead us to assess what is happening in different ways. In a recent talk, I used my discussion of Wilson's sudden experience (in chapter 12) to illustrate the process of event cognition. As Wilson experienced the bodily sensations of light and uplift, I suggested that his memory of his grandfather's sudden conversion experience might have functioned as an unconscious "prior" (a learned schema). As a prior, it gave rise to the "wind blowing on a mountaintop" image that – I hypothesized – constituted Wilson's initial working model of his sudden experience and, thus, his initial prereflective appraisal of the event.

Cultural schemas: Eidinow is concerned that - perhaps inadvertently - I suggest that an initial unconscious appraisal can appear in the absence of social learning. I think that both evolved (pan-human) and learned (cultural) schemas play a role in unconscious appraisal processes. Like Deeley, I look to cultural schemas as carriers of specific content and constraints on the interpretive process and think we need to attend much more fully to the role that individual and cultural learning plays in constraining prereflective experience. A focus on cultural schemas highlights the gap at the heart of the tension between Fuller's desire for more reliance on the "standard" cognitive science literature and Eidinow's desire for more social context. Although the focus of the CSR literature on cognitively natural (and, thus, pan-human) mechanisms has taught us much about common processes, it has been of limited use in explaining cultural differences. The traditional historical emphasis on socio-cultural context, while highlighting specifics, has not tried to explain how these social-cultural particulars are internalized cognitively. Research on event cognition and cultural schemas provides a crucial link that lies at the intersection of cognition and culture. A focus on the role of cultural schemas in appraisals of what is happening raises a host of new questions related to cultural differences. Thus, as Deeley suggests, we can ask whether cultural practices and scripts establish genres or styles of sudden visionary experiences and, I would add, our categorization of experiences more generally.

Moving forward

DeConick and Lane build on what I wrote to move the discussion forward with respect to our understanding of the emergence of NRMs and the cognitive processes that inspire people to claim that non-human entities are guiding them.

NRMs: DeConick rightly notes that unusual experiences do not account for all new religious movements and suggests a more encompassing paradigm that "does not fetishize extraordinary experiences and individual genius." Her more encompassing framework is a helpful elaboration on the more narrowly focused process I outlined. Lane takes us beyond theory to suggest specific questions that could be added to the Database of Religious History (DRH) that would allow us to investigate the extent to which (alleged) guiding presences play a role in the formation of NRMs. His suggested questions fall into three clusters having to do with (1) the presence and role of non-human entities, (2) the reception of claims within the group and the larger culture, and (3) the structure of and authority within the group. Under the first heading, he outlines a series of more specific questions that explore how believers know and interact with entities they believe to be present. These are questions that the three groups' claims challenged me to explore and, in my view, are questions that would add immeasurably to the DRH and our understanding of the emergence of NRMs.

Cognitive processes: Lane also picks up on my interest in understanding the cognitive processes that lead groups to believe they are being guided by presences and highlights a number of questions for further research that expand on the research that Deeley and his colleagues have been conducting (see, e.g., Deeley et al., 2014). Here Lane not only teases out testable hypotheses, but suggests potential methods of inquiry. Several of his suggestions would require the involvement of individuals with unusual abilities. If it proves difficult to enlist people who claim to have revelatory abilities, researchers might call upon highly hypnotizable subjects who are able to model the processes of interest (Oakley & Halligan, 2009, 2013). Other suggestions, such as testing to see whether texts created through "revelatory" and normal processes differ, could be implemented using the writings of channelers who wrote in both modes. Schucman's poetry and scientific publications could be compared with A Course in Miracles and Jane Roberts' poetry and prose could be compared with the writings of the channeled spirit, Seth. Lane also suggests ingenious methods for investigating whether external instruments, such as Schucman's notebook and Smith's seer stone, can act as cues for eliciting different cognitive modes, and for investigating the extent to which an "alternative self" fuses with the group. In combing through the book to find testable hypotheses that can be investigated in the laboratory or via databases, Lane moved the discussion forward in a way that I deeply appreciate (and haven't experienced before). For those of us attempting to bridge the humanities and sciences, this is a real gift and one that I think we should all try to emulate.

Disclosure statement

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