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# Serpent Handling: Toward a Cognitive Account – Honoring the Scholarship of Ralph W. Hood Jr.

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## Abstract

The ritual handling of serpents remains an unnoticed cultural form for the explanatory aims and theoretical insights desired by cognitive scientists of religion. In the current article, we introduce the Hood and Williams archives at The University of Tennessee at Chattanooga that contains data culled from Hood's 40-plus year career of studying serpent handlers. The archives contain hundreds of hours of interviews and recordings of speaking in tongues, handling fire, drinking poison, and taking up serpents by different congregants and congregations. The archive remains a rich but untapped source of data for building, testing, and refining cognitive theories of ritual in general, and serpent handling in specific. We connect Hood's work to current cognitive theories

and engage critically with research on the social functions of ritual. Finally, we discuss several further reasons to pay more attention to SHS communities and practices in cognitive theories of ritual.

### Keywords

ritual – serpent handling – costly signaling – social cohesion – cognitive science of religion – evolution – cultural transmission

## 1 Serpent Handling: Toward a Cognitive Account

The handling of serpents has thus far gone unnoticed in cognitive theories of ritual behavior. In honor of the prodigious research of Ralph W. Hood Jr. and colleagues, this article provides a broad introduction to cognitive and social scientists of religion to the importance and potential fruitfulness of studying serpent handling sects (SHS) and rituals.

This paper argues that the study of Appalachian serpent handling should go beyond the seminal contributions of Hood and colleagues (see Hood, 1998, 2010; Hood & Kimbrough, 1995; Hood, Hill, & Williamson, 2005; Hood & Williamson, 2008; 2021; Williamson & Hood, 2015; Williamson, Pollio, & Hood, 2000) by engaging with cognitive theories of religion and ritual. In particular, we will employ with Boyer and Lienard's (2006, 2008) model of ritualized behavior and engage critically with research on the social functions of ritual (Fischer & Xygalatas, 2014; Hobson, Schroeder, Risen, Xygalatas, & Inzlicht, 2017; Konvalinka, et al., 2011; Watson-Jones & Legare, 2016; Whitehouse, 2004; Xygalatas et al., 2013). Finally, we discuss several further reasons to pay more attention to SHS communities and practices in cognitive theories of ritual. We thank Hood for his prolific work with serpent handlers and point scientists to the vast data collection in the "Hood and Williamson Holiness Churches of Appalachia" archive of interviews and recordings that awaits use in further developing and testing theories of high-risk rituals.

## 2 Introduction: The Need for Cognitive Explanations

One of the more novel areas of research explored by Ralph W. Hood, Jr. is the topic of serpent handling within the Southern Appalachian mountain region of the United States. Hood's research has focused on the lived experience

of serpent handling as a theologically diverse religious practice with shared agreement on the legitimacy of the practice even when there are documented examples of harm, maiming, and even death among congregants. His research has spanned a variety of topics on serpent handling within a continually changing and globalized world. Yet, the initial research on serpent handling spanned from psychoanalytic interpretations of the tradition as a form of collective disorder to studies of adverse outcomes such as familial mortality, education disparities, or even negative socio-economic depictions related to people of faith in these traditions (Silver, Williamson, & Hood, 2013).

Surprisingly, attention to serpent handling is absent from existing cognitive theories of ritual (e.g., Boyer & Lienard, 2006, 2008; McCauley & Lawson, 2002; Watson-Jones & Legare, 2016; Whitehouse, 2004; Whitehouse & Lanman, 2014). In the current article, we build on the richness of Hood's psycho-anthropological work by situating it an explanatory framework that elucidates the cognitive mechanisms that produce ritual behavior and their resulting social-cognitive functions. Our aim is to spark interest in the pursuit of cognitive explanations for serpent handling, which could be deemed an "extreme" or "high-risk" ritual (Silver et al., 2003).

### 3 Current Explanations for Serpent Handling

Why would anyone handle serpents? For SHS members of the Appalachian region of the United States, scriptural passages from the Bible combined with tradition are invoked to explain what might appear as strange and dangerous behavior from an outside perspective (Hood & Williamson, 2008). Turning to the existing psychology of religion literature reveals explanations that often parallel those of the believers – textual interpretation mixed with cultural transmission (cf. Taves, 2009; e.g., Hood, 2009; Hood & Kimbrough, 1995). The work of Hood and colleagues, focused on intertextual, hermeneutical, and phenomenological accounts of serpent handling, has provided rich and detailed folk descriptions and understandings of the tradition with insights into SHS beliefs and experiences as interpreted through tradition (e.g., Hood, 1998; Hood & Kimbrough, 1995; Williamson & Hood, 2015). Hood, Hill, and Williamson's (2005, p. 6), *The Psychology of Religious Fundamentalism*, for example, takes the intertextual model as its central theme and its goal is providing a psycho-social-historical "understanding [of] fundamentalism." While these studies offer insights into behavioral and self-reported experiences in SHS rituals, further research should, as we introduce in this article, consider the theoretically rich use of ordinary cognitive, mechanistic *explanations* and the social cognitive processes they enable.

#### 4 Serpent Handling in Appalachia: Description and History

One of the lesser-known forms of Protestant Christianity are the SHS of Appalachia. These churches span from the out-coves nestled in mountains of Appalachia to country churches in the foothills of Kentucky. Many of these congregations share similar suffix naming added to titles such as “with signs following”: a shibboleth for the initiated that serpents are handled at the church. While most commonly found in the Southern Appalachian Mountain region of the United States, the practice has extended beyond that region. Yet, the practice of serpent handling claims its historical origin in the folk culture of Eastern Tennessee at the turn of the 20th century with the adoption of the practice by George Hensley, a bishop in the newly organized Church of God of Cleveland Tennessee. When Hensley resigned his episcopacy in the Church of God, the Church of God formally abandoned the practice. Some isolated churches continue the practice to this day. Serpent handling, in modern times has linkages to three forms of American Protestantism. Those three are Holiness (Wesleyan), fundamentalist, and Pentecostal traditions, although most SHS congregants identify with Holiness because their outward behavior signals their appropriateness to testify. Devotees justify the practice through textual authority from Mark 16:17–18.

And these signs shall follow them that believe; In my name shall they cast out devils; they shall speak with new tongues; They shall take up serpents; and if they drink any deadly thing, it shall not hurt them; they shall lay hands on the sick, and they shall recover. So then after the Lord had spoken unto them, he was received up into heaven and sat on the right hand of God. And they went forth and preached everywhere, the Lord working with them, and confirming the word with signs following.

MARK 16:17–18, KJV

By following the proclamation of this passage, congregants believe they are following the model of the early apostles. These signs indicate the true believers among many. Another indicator is glossolalia or speaking in tongues, as mentioned in Acts 2:43. While services follow similar patterns (call and response, testifying, praying, laying on hands, speaking in tongues), there is plenty of variability in the behaviors and actions of congregants. One might even describe the services like Jazz improvisation as behavior changes moment by moment as determined by if congregants feel the presence of the Holy Spirit or not. Yet, as the ritual processes repeat in the variety of forms of service after service, collective attention, naturally, is placed on those who testify, handle serpents, drink poison, and speak in tongues. There are potential cognitive and



FIGURE 1 Serpent handling at the Church of God with Signs in Kentucky, September 15th, 1946

PHOTO BY RUSSELL LEE

evolutionary advantages to such a practice. While serpent-handling can be considered a unique and grassroots tradition, the risk assumed in the practice of serpent handling coupled with the profound mystical and prophetic experiences reported by devotees, SHS makes for an excellent case study in describing the cognitive underpinnings of ritualized practices and the collective and sometimes transformative experiences they can facilitate among group members given the gravity of the context and the real element of danger for which, according to the faithful, only God knows the outcome.

## 5 The Cognitive Underpinnings of Ritual

The manifestation of behavior at the cultural level is undergirded by evolved cognitive mechanisms (Boyer, 2018; Tooby & Cosmides, 2015). Boyer and Lienard's (2006) model of ritualized behavior is one theory that can help explain the emergence and persistence of SHS by postulating two cognitive mechanisms, the Hazard-Precaution system (HPS) and the Action Parsing system (APS). These mechanisms produce a variety of rituals in both normal and pathological individuals. The psychiatric category of obsessive-compulsive

disorder (OCD) represents an easily noticeable perturbation of these systems, characterized by “intrusive thoughts about potential danger and a compulsion to engage in stereotyped activities” (Boyer & Lienard, 2008, p. 291). Plagued by obsessive thoughts about contamination/purity or harm, OCD individuals are driven to carry out extraordinary behaviors to ease these thoughts by completing actions that stray from the typical goal-action process. For example, if an average individual believes the front door to be unlocked, they may check it once and any internal conflict is resolved. An OCD individual, however, might not be satisfied the door is sufficiently locked or checked until it has been checked precisely seven times.

This is not to say that SHS devotees are pathological, as previous scholarship has implied or suggested (cf. Hood, 1998), only that OCD is an extreme, yet normal, perturbation in an evolved cognitive system (Boyer & Lienard, 2006, 2008) and we all fall somewhere along this spectrum as a need for ordering a chaotic world. This is a typical characterization within cognitive science, linking psychiatric categories with normal variation in specific cognitive systems (Crespi, 2016) and has been successful in other domains, linking, for example, autism spectrum conditions and traits to normal variation in the theory of mind system (*ibid*). To further support this premise, it has also been suggested that aspects of scientific behavior can be explained through this model of ritualized behavior (cf. Foss, 2008), and indeed most ritualized behavior is putatively *not* religious behavior. Nevertheless, the HPS manages “indirect threats to fitness and motivate[s] the organism into taking precautionary behaviors” (Boyer & Lienard, 2008, p. 292). The APS breaks movements down into meaningful units of behavior that humans can understand, describing them as goal directed.

Both systems are domain-specific learning systems. However, the actual domain of inputs that can trigger these mechanisms are much broader than their proper domain (Boyer, 2018; Boyer & Lienard, 2008; Coleman, Messick, & van Mulukom, forthcoming). Initially, for example, the HPS is tuned for a vague fear of all animals. Still, with gradual instruction and experience, this system becomes fine-tuned (e.g., Do not be afraid of Golden Retrievers.) or may extend outside its proper domain, to invisible threats (e.g., Watch out there’s electricity running through that wire!).

The APS allows one to realize, for example, that when I have a rag in my hand, and I am applying it to spilt milk on the floor, that I have the goal of cleaning up the milk. Here a rather ordinary action is underpinned by ordinary goal-directed behavior. In contrast, ritualized behavior demotes the goal and hyper-focuses in on specific actions, which are typically unconnected to the goal. For example, suppose I told you that to clean up milk (goal) you had to do it by wiping only clockwise and holding your left finger on the tip of your nose.

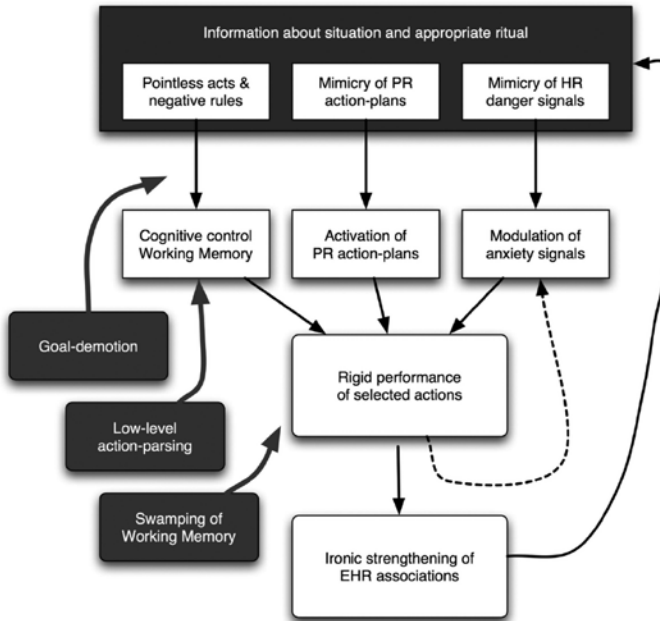


FIGURE 2 A model of action ritualization reproduced from Boyer & Lienard (2008, p. 17)

## 6 Threats and Contamination within Serpent Handling Sects

Recurring themes within the SHS, and indeed much religious ritualized behavior (Boyer & Lienard, 2006) are perceived threat (e.g., sin) and the compulsion to act in a very specific fashion (e.g., practice these “signs”) as a commandment, an act of obedience without which salvation is not possible (Hood & Williamson, 2008). On Hood, Hill, and Williamson’s (2005, p. 6) account, the key variable to understanding the universal appearance of Fundamentalism is that sacred texts are relied upon “exclusively.” Moreover, Hood and Williamson suggest that SHS arose from the Holiness movement, which was itself a response to what was perceived as the Methodists “doctrinal compromise on sanctification, escalating modernism within the church and higher (academic) criticism of the Bible” (Hood & Williamson, 2008, p. 18). In other words, these were invisible threats in the minds of Holiness members, which were met with rigidity and orderliness.

These dissatisfactions are precisely the kind to expect if the HPS of these individuals was elevated. Literalism and rigidity in response to perceived threat are central features of ritualized behavior (Boyer & Liénard, 2006; Hobson et al., 2017), and Hood and Williamson (2008) suggest these qualities

characterize the belief structures of SHS. The degree to which the emergence of the serpent-handling tradition, as described by Williamson and Hood (2004, p. 153), fits the ritualized behavior model is uncanny and will serve as a case study. Moreover, similar cases can be found within the testimonies of other present-day SHS members (see the Hood and Williamson archives [2020]). George Went Hensley's conversion, the founder of the movement, coincided with rejecting:

... his former lifestyle of tobacco, moonshing [*sic*], and 'worldly' friendships for full embrace of the Holiness-Pentecostal doctrine and its zealous way of godly life ... It was sometime during this period that he became deeply concerned about the biblical passage of Mark 16:17–18, which was commonly preached among Holiness-Pentecostals as a textual justification for their unique worship practices, as well as for evidence that they were believers and practitioners of the whole Bible. The preaching of these biblical signs troubled him greatly, especially in view of the fact that only three of the five signs were being manifested by believers ... It was this discrimination among the signs that caused him much spiritual unrest.

After climbing a nearby mountain to seek council with God, Hensley was resolute "that the manifestation of signs in Mark were in fact commands for believers to obey, he felt his eternal security rested upon obedience to these mandates – and specifically, the taking up of serpents" (Williamson & Hood, 2004, p. 153). Below, we list four key features from the previous vignette that suggest the HPS was activated during Hensley decision to establish his SHS:

- 1 Culturally available – invisible – threats were manifest.
- 2 A strong fixation on that the already rigid and literal interpretation by other Holiness members wasn't cutting it, more had to be done.
- 3 This causes great concern, a compulsion to act, set things right.
- 4 His security might be ensured by carrying out these specific actions.

This model of ritualized behavior is not exhaustive, and there are further reasons why rituals are attractive to humans but the HPS, as a low-level cognitive process, is one link in the chain from individual minds to the fruits of collective action and cohesion embodied in many rituals deemed religious.

## 7 Coalitional Psychology and Ritual Affect

Like other animals, human beings are psychologically prepared with mechanisms for building alliances, maintaining group cohesion, and detecting



cheaters (Tooby & Cosmides, 2015, Whiten, 2013). However, this evolved cognitive suite, dubbed “coalitional psychology” (Boyer, Firat, & van Leeuwen, 2015; Whitehouse & Lanman, 2014) is most exaggerated in humans, enabling our distinct socio-cognitive niche, which facilitates the many social institutions that surround us, such as governments, religious organizations, and even academic societies (Boyer 2018; Whiten & Erdal, 2012). Ordinary, coalitional psychology is another aspect of what is needed to explain rituals writ large and the rituals of SHS in particular, and ritual engagement amplifies these basic endowments (Gamble, 2013; Watson-Jones & Legare, 2016) further binding individuals into the close tight-knit communities observed within the SHS. As Watson-Jones and Legare (2016) have elucidated, group rituals have social functions.

### 7.1 *The Ritual Effect: Social Cohesion*

Affiliation, empathy, and coordination are interconnected components of ritual (Hobson et al., 2017). Perceiving scenes of group affiliation or individual isolation engage core neural regions of social cognition (Beadle, Yoon, & Gutchess, 2012). Anxiety is induced whenever strangers meet, however sharing in a brief cooperative experience (playing the video game Rock Band) amongst complete strangers’ increases empathy, trust, and affiliation (Martin et al., 2015). The motor performance coupling between two individuals engaged in a joint action task is greatly facilitated when preceded by a shared musical listening experience (Lang et al., 2016). Simple repetitive behavior, such as tapping, synchronizes between dyads based on their ability to predict the action of another (Konvalinka, Vuust, Roepstorff, & Frith, 2010). Furthermore, a naturalistic experiment by Jackson and colleagues (Jackson et al., 2018) found that engaging in synchronous and physiological arousing behavior with no perceivable costs, (i.e., marching faster vs. slower) increases group cohesion and cooperation. Therefore, even low/no-cost or euphoric ritual engagement (Watson-Jones & Legare, 2016; Xygalatas, 2014) such as the dancing and music playing that accompany SHS services helps explain their cohesion and persistence.

### 7.2 *Dysphoric Rituals*

However, more risqué rituals appear to be more effective at binding groups together. For spectators of some so-called extreme rituals such as firewalking, their heartbeat synchs up with those of the fire-walkers (Konvalinka, et al., 2011), and even being a mere spectator to the event can be more emotionally exhausting than actually participating (Fischer & Xygalatas, 2014). There is evidence that participating in and even viewing painful rituals, such as body piercing with metal skewers and sharpened bamboo shoots can increase altruistic behavior among co-religionists (Xygalatas et al., 2013). Moreover, rituals

involving higher levels of synchronous movements and sacred cues have similar effects (Fischer et al., 2013). Experimental evidence suggests that engaging in much less costly behavior than handling serpents – such as donating to charities or adherence to religious dietary restrictions – can increase trust within and across religious identities (Hall et al., 2015). Therefore, dysphoric rituals are particularly efficacious at bringing individuals together through shared experience, however they are also multifunctional.

### 7.3 *Signaling Commitment*

For example, engaging in costly behavior is one very effective way of signaling commitment to one's group. Rituals can function as “commitment assessments” (Bulbulia, 2004, p. 28; also see Watson-Jones & Legare, 2016), and it is safe to say that most people who handle deadly snakes are either herpetologists or members of the Appalachian SHS. Members of SHS can and do die from handling serpents and drinking poison. These are clearly costly signals and are typically conducted at what are called homecoming events, “where several congregations come together to support a single church, usually over three days” (Hood & Williamson, 2008, p. 193). Thus, as the SHS are small in number, scattered throughout Appalachia, marginalized and stigmatized by the surrounding communities (Hood & Williamson, 2008; Morrow & Hood, 2005), engaging in these biologically costly displays of faith serves to reinforce commitment to God, each other, and the tradition. Based on the evidence reviewed above, all rituals appear to strengthen group cohesion and resiliency; however, depending on the context, some rituals perform these functions better than others.

## 8 **Ritual Engagement and Frequency: Testing Divergent Modes Theory**

Life changing, emotionally intense (especially dysphoric) rituals produce identity fusion and a durable sense of psychological kinship with other group members.

WHITEHOUSE & LANMAN, 2014, p. 681

Whitehouse's (2004, p. 64) “divergent modes theory” predicts that features of human cognition interact with local sociopolitical contexts to produce two different types of religious rituals. Here, we describe each mode and then reflect on the theory's applicability to SHS.

The *doctrinal mode* is found among individuals living in large, mostly anonymous, and diffuse communities (such as most parts of the world today). The

doctrinal mode consists of rituals that are highly routinized, occur frequently, and are low arousal (e.g., the act of *sujud*, shuckling, or reciting the Lord's prayer), and occur in mundane to mildly euphoric contexts such as mosques, synagogues, ashrams, and churches – all institutions which have a centralized organizational structure and focus on the repetition of dogma. Doctrinal mode rituals are easily spread – do this, repeat this, follow me – is the directive.

In contrast, where repetitive, doctrinal rituals prevail, the ecstasy and jubilation that fills the tiny SHS churches are often discouraged. At SHS services, the music is loud, upbeat, and lively, the dancing and movement are wild, and the spontaneous, personal experience of the divine is encouraged. Whitehouse (2004) has termed this ritual phenotype the *imagistic mode* of religiosity. Imagistic rituals more commonly contain high arousal and varying levels of dysphoria. Due to this, they are also predicted to occur at lower frequencies than their doctrinal counterparts. Given serpent-handling rituals occurs several times a year in the SHS, they appear to violate the theoretical predictions of “modes theory,” an issue we return to in the conclusion.

## 9 Ritual Affect in Serpent Handling Sects: Dysphoric and Euphoric Arousal

Set apart from mainstream Protestantism, any particular SHS may have only a handful of congregants and “have remained fiercely independent,” they “lack a central organizational structure, and are scattered across Appalachia” (Hood, 1998, p. 72). The rituals of SHS are hard to spread due to their high-risk nature (want to pick up a diamondback rattler anyone?), but their binding affect may be second to none (Whitehouse, 2004; Whitehouse & Lanman, 2014).

It would be an understatement to say these highly arousing ritual acts – handling poisonous snakes, fire, and even drinking strychnine – involve pain, as they can and often do lead to maiming or death. Via emotional amplification, dysphoric and euphoric rituals have a strong binding effect, and Hood, Williamson, and their colleagues have taken great care to emphasize the emotional amplification surrounding the practices of the SHS (Hood & Kimbrough, 1995; Hood, 1998; Hood & Williamson, 2008; Williamson & Pollio, 1999). This is likely why the phenomenological aspects of the tradition have been the most investigated because they are the most salient; the amount of emotionality surrounding these practices is a clue to the high level of *both* dysphoric and euphoric arousal. We argue these rituals may serve a dual function, as both euphoric and dysphoric depending on the context. As the old saying goes, “it's all fun and games until someone gets hurt.” Euphoric arousal surrounds the act of handling the serpents (Hood & Williamson, 2008), but once an individual is

bitten, the context quickly changes into one of dysphoric arousal. The SHS rituals, then, such as other rituals can serve multiple functions (Hobson et al., 2017; Xgalatas, 2014). They are generally euphoric but can quickly shift to the dysphoric – and then back again, as an individual is bitten, but death is overcome, either by handling without a serpent bite or surviving a bite, the euphoric context is clear. Less clear however, is whether psychologists and cognitive scientists interested in *explaining* ritual behavior will choose to test and refine theories of ritual by focusing on, as we argue below, the unique rituals of the sign following believers of Appalachia.

## 10 Cognitive Scientists Should Pay Attention to Serpent Handling

Serpent handling rituals attract “sign following believers”, but they have not yet attracted the attention of cognitive scientists of religion. Below, we provide three inter-related reasons why a focus on SHS will benefit cognitive scientists.

## 11 Evolved Snake Detection Mechanism

Because humans (and other non-human animals) have evolved psychological mechanisms specifically for the detection and avoidance of snakes (for a review, see Tooby and Cosmides, 2015), this may make their use in ritual actions *unique* among other possible high-risk rituals such as skin piercing or fire-walking for example, and could lead to interesting predictions within existing theories of ritual (something we return to below).

## 12 The Deep History of Serpent-Human Symbolism

The handling of serpents and other snakes is not limited to the Appalachian region nor the western Christian context (e.g., the Sufi Aisawa tradition in Morocco; Tingle & Slimni, 2017).<sup>1</sup>

The role of the serpent is a recurring theme in many different mythologies and rituals across history (Hood & Williamson, 2008), and could have played a prominent role in the rituals of human prehistory, as evidenced by the serpent being the most frequently pictured animal on the pillars of the 12,000-year-old Göbekli Tepe site (arguably one of the earliest known temple / ritual sites ever discovered; Henley, 2018). All of this is to say that, due to the ubiquity

<sup>1</sup> We thank Sidi Nadi Bekkali for providing us with this example.



FIGURE 3 Serpent handler in Tangier, Morocco  
PHOTO BY SEBASTIAN LAPOSTOL

of the serpent in the history and evolution of human cognition, the study of present-day serpent handlers presents unique opportunities to test and refine explanatory theories of ritual behavior.

### 13 Refining Cognitive Theories of Ritual

The case of serpent handling both challenges and could potentially lead to refinements in explanatory theories of ritual. For example, for serpent handlers, the HPS does not appear to trigger the “precautionary behavior” predicted by Boyer and Lienard’s (2008, p. 292) model of ritualized behavior (i.e., individuals should be doing almost anything other than picking up the serpent). Do serpent handlers display variations in their HPS, snake detection mechanism or other psychological processes that might assist in a cognitive explanation of this peculiar type of ritual? In another example, the high level of arousal experienced at SHS services combined with their frequency of occurrence are the exact opposite of what Whitehouse’s (2004) modes theory predicts their arousal level and frequency should be. A better understanding SHS culture and studies including SHS participants could further refine the modes theory. Lastly, another reason to focus on the rituals and socio-cultural dynamics of the sign following believers of Appalachia could be used square the circle, between competing or alternate theories of religious rituals. For

example, McCauley and Lawson's (2002) "ritual form hypothesis," which we could not discuss here, but has slightly different predictions and aims than "modes theory." Therefore, many important questions await investigation by cognitive scientists.

Although we were able to discuss some cognitive explanations for SHS only briefly, a more complete picture would require other possible (and probable) explanatory factors, such as the presence of a charismatic leader (see Hood & Williamson, 2008; Schjødt et al., 2011), and their role in the cognitive transmission of serpent handling demands investigation.

## 14 Conclusion

This article honors the prolific work of Ralph W. Hood Jr. by encouraging the development of cognitive explanations for serpent handling. Specifically, by focusing on the unique dynamics of SHS, cognitive scientists have opportunities to advance our knowledge of human nature and its cultural forms. In one cultural form, the serpent handling churches of Appalachia, Hood's legacy is the rich psycho-historical, ethnographic, and phenomenological accounts of the serpent handling services and the experience of handling serpents, which will be invaluable to refining and creating cognitive theories of ritual in general, and serpent handling in specific. In addition to his many formal publications on serpent handling, most of this material is published in the Ralph W. Hood Jr. and W. Paul Williamson archives (2020)<sup>2</sup> at the University of Tennessee at Chattanooga. The archives contain recordings and interviews across 29 years of serpent handling, with more than 400 hours of church service recordings, containing different congregations and congregants speaking in tongues, handling fire, drinking poison, and taking up serpents. In closing, we are enthusiastic that Hood's work has laid a foundation for cognitive scientists to consider taking up serpents in their scholarship.

### Disclaimer

The authors declare no conflicts of interest and did not receive any funding in the production of this article.

<sup>2</sup> <https://digital-collections.library.utc.edu/digital/collection/p16877coll2>.

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