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Psychology of Religion Approaches to the Study of Religious Experience

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Abstract: Religious experience played a prominent role in the psychological study of religion in the early decades of the twentieth-century, then waned as behaviorist and quantitative approaches became more prominent, and reemerged in the second half of the twentieth century alongside, and largely distinct from, mystical experience and, more recently, spirituality. Compared to the past, current research places less stress on sudden subjective experiences and more on ordinary (spiritual) experiences and gradual (spiritual) transformations that can take place in the context of practices or everyday life (struggle and coping). Ralph Hood, who is widely recognized as the leading expert in this area, makes a sharp distinction between religious and spiritual experiences, which must be defined by individuals and/or traditions, and mystical experience, which he views as a cross-culturally stable experiential core of religion and spirituality. Consideration of research on religious, mystical, anomalous, and pathological experiences, however, highlights considerable overlap between them and a lack of attention to the processes whereby they are differentiated within and across cultures. Researchers are developing new measures that separate experiences and appraisals, as well as new methods for ensuring that respondents understand queries in the way researchers intend. These innovations should allow us to better understand the effects of culture and tradition on the way unusual experiences are constituted in the context of everyday life.

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Psychology can stand in various relations with religion: psychology *and* religion, psychology *as* religion, and psychology *of* religion (Jonte-Pace and Parsons 2001). The first is a subfield within religious studies, the second within theology, and the third within psychology. Research in the psychology of religion overlaps to some extent with the new interest in the cognitive science of religion. Researchers differ in their training, however. Most psychologists of religion are trained in psychology, while most researchers associated with the cognitive science of religion are trained in anthropology, philosophy, or religious studies. This chapter focuses on the way psychologists of religion have approached the study of religious experience.

Religious experience, understood primarily in terms of conversion and mystical experience, played a prominent role in the psychological study of religion in the early decades of the twentieth-century. Experience (religious or otherwise) waned as a focus of study as behaviorist and quantitative approaches became more prominent. Religious experience reemerged as a topic in the second half of the twentieth century alongside, and largely distinct from, mystical experience and, more recently, spirituality (Wulff 2001; Emmons and Paloutzian 2003). These shifts reflected changes in psychology as it shifted from studying consciousness to behavior in the 1920s and from behavior to cognition in the 1950s, as well changes in the study of religion as it shifted from a largely Protestant-centered focus on religious experience to a more even-handed study of various religious traditions and, most recently, an understanding of spirituality as potentially separable from religion (Hill et al. 2000).

Although the psychological study of religion has both European and American roots (Wulff 1997), William James's *Varieties of Religious Experience* (VRE; 1902/1985) played an outsized role in its development and stands as the only widely recognized classic in the psychology of religion. As such, we can use it to highlight key features of the early psychology of religion and better understand how the subfield has changed over time. Two substantive features stand out: its focus on the conversion experience and on mysticism. For most of the nineteenth century, revivals and awakenings in which people experienced conversion were a staple of Protestantism. By the end of the century, however, liberalizing Protestants sought to downplay the need for a sudden experience in favor of a gradual process of transformation, typically through education. Downplaying conversion, while at the same time questioning traditional sources of authority such as the Bible, heightened liberalizers' interest in other forms of experience, such as mysticism, which until that time encompassed a wide range of experiences that Protestants associated with "superstitious" Catholics and "primitive" peoples. Writing in 1890, James (1983, p. 248) indicated that mysticism included "divinations, inspirations, demoniacal possessions, apparitions, trances, ecstasies, miraculous healings and productions of disease, and occult powers."

In this context, James's *Varieties* made three key interventions: (1) It offered a psychological interpretation of both sudden and gradual conversion that leveled the playing field between evangelical and liberal Protestants by explaining both types of conversion in terms compatible with a modern, scientific religious sensibility. (2) Along with Ralph Inge (1899) and Evelyn Underhill (1911), James adopted a narrowed definition of mysticism that established a hierarchy of experiential phenomena that placed "authentic" mysticism at the apex and relegated other ostensibly "primitive" or "pseudo-mystical" phenomena to the margins. (3) It explained

both conversion and mysticism in light of a psychological theory of religion in which the “common nucleus” of all religions was a transformative process premised on an “uneasiness” that required “a solution.”

The solution, according to James (1902/1985, p. 400), was “a sense that we are saved from the wrongness by making proper connection with the higher powers.” This connection, he said, was mediated by a “higher part” of the self, which potentially transcends the self, as well as “lower parts” associated with insanity. The connection was experienced as the incursion of a power other than the self. Although he downplayed the connections in the VRE, James’s understanding of these “incursions from the subconscious” was grounded in a dissociative view of the mind that he had developed in conversation with psychical researchers studying spiritualist mediums and clinicians treating patients with mental disorders (Taves 2009b).

Part I: Contemporary Approaches

With this as a baseline, we can turn to the current situation, keeping in mind that, from the outset, James was criticized for focusing too much on “individual men in their solitude” (VRE, p. 34) at the expense of collective practices and on “religious geniuses,” whom he freely admitted, were “subject to abnormal psychical visitations” (VRE, p. 15) at the expense of ordinary, everyday experience. In depicting the current situation, I will focus primarily on the psychology of religion as represented by researchers associated with the International Association for the Psychology of Religion (IAPR) and American Psychological Association’s (APA) Division 36. Over the past several decades, psychologists associated with IAPR and APA have offered overviews of the subfield in graduate (Hood, Hill, and Spilka, 5th ed. 2018) and undergraduate textbooks (Paloutzian, 3rd ed. 2017) and, more recently, in two handbooks (Paloutzian and Park 2005, 2013; Pargament, Exline, and Jones 2013).

If we examine these handbooks and textbooks, we find that they now routinely include “spiritual experience” and consistently distinguish between religious, spiritual, and mystical experience. In contrast to the VRE, religious experience is no longer treated as an overarching category that includes mystical (and now spiritual) experience. Although the *Handbook of the Psychology of Religion and Spirituality* (Paloutzian and Park 2005, 2013) treats all three types of experience in a single chapter on “Mystical, Spiritual, and Religious Experience” (and adds a chapter on “The Neuropsychology of Religious Experience”), the others do not. The 2nd and 3rd editions of *The Psychology of Religion* (Spilka et al. 1996, 2003) have separate chapters on “Religious Experience” and “Mysticism.” The 4th and 5th editions (Hood, Hill, and Spilka 2009, 2018) retitle the former as “Religious and Spiritual Experience,” which they continue to treat apart from “Mysticism.” The *APA Handbook of Psychology, Religion, and Spirituality* (Pargament, Exline, and Jones 2013) has separate chapters on “Mystical Experience” and “Spiritual Experience,” while leaving out “Religious Experience” entirely. The most recent edition of the *Invitation to the Psychology of Religion* (Paloutzian 2017) breaks with this pattern by focusing on “Religion, Spirituality, and Experience.”

If we consider the experiential dimension of religion and spirituality more broadly, we find the psychologists are still devoting attention to conversion (Spilka et al. 1996, 2003), while expanding its purview to include “Spiritual Transformation” (Paloutzian and Park 2005), and most recently, “Deconversion” as well (Streib et al. 2009; Paloutzian and Park 2013; Paloutzian 2017; Hood et al. 2018). There are also chapters we can cluster under the general heading of religious and/or spiritual “struggle and coping,” (Paloutzian and Park 2005, 2013; Pargament 2013; Paloutzian 2017; Hood, Hill, and Spilka 2018).

We can make initial sense of these changes as a move away from James's emphasis on sudden, subjective experiences (incursions from the subconscious) to more ordinary (spiritual) experiences and more gradual changes (spiritual transformations) that can take place in the context of practices or everyday life (struggle and coping). Thus, on a continuum from sudden to gradual experience, the focus has shifted from the sudden to the gradual. We also see a shift from an emphasis on experiences that are purely subjective or internal to experiences that are more public and external. If we depict these as two axes (sudden-gradual and internal-external), we can see the work that the terms “mystical” and “spiritual” are now doing (Figure 1).

Figure 1: Types of Experience by Dimension (internal/external, sudden/gradual). The placement of experiences, though approximate, illustrates the difference between the upper left quadrant, which contains unusual experiences, and the other three quadrants, which contain more ordinary experiences. In the contemporary European and American context, usual experiences are

typically interpreted as mystical, transliminal, or anomalous, or, if translated into psychiatric terms (such that undifferentiated unity = ego dissolution, OBE = dissociation, visions & voices = hallucinations), as pathological. Experiences in the other three quadrants tend to be interpreted as religious, spiritual, or secular.

“Mystical experiences,” as psychologists typically define them, appear in the upper left quadrant, along with other sudden internal experiences, while “spirituality” extends to the other three quadrants.¹ The upper right quadrant captures gradual processes of inner spiritual transformation, while the lower right captures more external, public processes that may or may not take place in a formal religious setting. The lower left quadrant contains sudden, observable experiences, such as sudden upwellings of emotion and sudden injury, illness, and death. The latter, which may be accompanied by sudden internal experiences, e.g., visions and near death experiences, are often treated in nonreligious settings (e.g., hospitals) by personal increasingly attentive to “spiritual” issues (Sullivan 2019). In this mapping, religious experience has become a “floating signifier” lacking agreed upon associations.

We can deepen our understanding of these experience-related lines of research by turning to the methods psychologists of religion have used to pursue them. Although some like to highlight the subfield’s methodological diversity (see, e.g., Hood Jr and Belzen 2013), the majority of studies have relied on questionnaires (also called scales or measures) (Hill and Hood 1999; Hill 2013; Hill and Edwards 2013). As a scientific field, psychology of religion is premised on the measurement of religious and/or spiritual (r/s) constructs, which can be treated either as an object of study in its own right, e.g., religiousness or spirituality, or as a variable that affects something else, e.g. flourishing, depression, or benevolence.

¹ In the general population the semantic range of the term “spirituality” is very broad. For an analysis of meanings in the US and Germany, see Streib and Klein (2016).

A construct is a hypothetical variable that is not directly observable, such as motivation, intelligence, or, in this case, religiousness or spirituality. As such, it must be operationalized in order to be measured. This can be done by means of a behavior (e.g., how often do you attend church?) or a self-assessment (e.g., how religious are you?) (Oman 2013). Although this gives rise to many different operationalized measures of religion and spirituality, psychologists view this as “the only way [they] can understand religion from a scientific standpoint” (Hood, Hill, and Spilka 2018, p. 17). Of the measures developed by psychologists of religion, only a subset focus on experience, whether characterized as religious, mystical, or spiritual (for a list of the more reliable measures, see Hill 2013, pp. 65-67).

To understand how they are approaching religious, spiritual, and mystical experience more clearly, we can return to the topics outlined above to consider researchers who have shaped the line of inquiry, the questions they are asking, and the tools they use to answer them.

Religious and Mystical Experience: Within the psychology of religion, Ralph Hood is widely recognized as the leading expert on religious and mystical experience. Hood created the Religious Experience Episodes Measure (REEM; Hood 1970) using items drawn from the VRE, and the Mysticism Scale (M-Scale; Hood 1975) based on W. T. Stace’s criteria for mysticism. Both are well regarded based on the usual measurement criteria (Hill 2013, pp. 65-67) and have been used in numerous studies in the US. The M-Scale has been used in a number of other cultures as well. In addition to a long history of empirical research, Hood has written most of the overviews of the research in this area. His interdisciplinary *Handbook of Religious Experience* (Hood 1995) was the first, and until now only, attempt at a comprehensive approach to religious experience. He authored the chapter on “Mystical, Spiritual, and Religious Experiences” in the first and second editions of the *Handbook of the Psychology of Religion and Spirituality*

(Paloutzian and Park 2005, 2013) and the chapter on “Mystical Experience” in the *APA Handbook of Psychology, Religion, and Spirituality* (Pargament 2013). He is the first author of the two most recent editions of *The Psychology of Religion* (Hood, Hill, and Spilka 2003, 2018) and bears primary responsibility for its chapters on “Religious and Spiritual Experience” and “Mysticism.”

In testing his measures of religious experience (REEM; Hood 1970) and mystical experience (M-Scale; Hood 1975), Hood found that “religious experience” was harder to define and measure across cultures than “mystical experience.” In designing the REEM, Hood took what he called “a literary exemplar approach,” drawing examples of experiences from James’s VRE and asking respondents to rate the extent to which they had experienced something similar. Holm (1982) had difficulty producing a meaningful Swedish equivalent until he replaced the examples drawn from the VRE with examples drawn from Nordic tales. In light of Holm’s efforts, Hood concluded that the REEM was likely best suited to religiously committed North American Protestants.

Hood’s experience with the Mysticism Scale, which he based on Stace’s (1960) definition of mysticism as an experience of “undifferentiated unity,” was quite different. In developing the scale, Hood (2013, pp. 296-297) deliberately rejected James’s definition of mysticism, which encompassed “varied forms of intense experiences,” as too broad and adopted Stace’s definition of mysticism as an experience of “undifferentiated unity.” As he explains, “I sought an independent measure of the experience of unity, whether religiously interpreted or not, not a general measure of a variety of transliminal states. I wanted a measure of mysticism as a response to the Real” (p. 297). As Hood elaborated,

My fascination with James's and Stace's work was fueled by a commitment to what Schuon (1975) has called in an aptly titled book *The Transcendent Unity of Religion*. This controversial view includes the argument that although specific faith traditions must be understood as unique in historical and cultural terms, it is possible that differences in faith tradition mask otherwise identical experiences that are both epistemologically and ontologically identical. ... The claim to a transcendent unity to religion (and here "religion" is any articulation of the meaningfulness of mystical experience) rest upon the ontological claim that in mystical experience is real. Simply, the report of unitive mystical experience is a report that amounts to an ontological claim about what Hick (1989) simply argued is the Real. (Hood, 2013, 301-302).

Hood used Stace's definition to operationalized mysticism because he wanted to test Stace's claim that experiences of "undifferentiated unity" gave access to the Real and thus reflected the underlying unity of religion.

In saying this, he acknowledges (Hood, Hill, and Spilka 2018, p. 356) that "social scientists cannot confirm any ontological claims based on mystical experience; [but] they can construct theories compatible with claims to the existence of such realities" and investigate "hypotheses derived from views about the nature of transcendent reality ..., as long as specific empirical predictions can be made." To test Stace's claim, Hood and collaborators (Hood and Williamson 2000; Hood et al. 2001; Chen et al. 2011) administered the Mysticism Scale to general populations in a number of cultural contexts (the U.S., Iran, India, and China) in order to assess the prevalence of such experiences across cultures. Based on these data, Hood (2013) reasserted the case for a "common core" of mystical experience and argued that "mysticism is

the best candidate for a distinct, *sui generis* experience that has been recognized across diverse traditions and cultures” (Hood, Hill, & Spilka, 2018, p. 355, 383-388).

Hood relies on this evidence to make a sharp distinction between “mystical experience,” which he views as constituting the “common core of religion,” and “religious experience,” which he views as the product of ordinary attributional processes. Virtually any experience, Hood acknowledges, can be considered religious if it is appraised as such. Mystical experiences, in contrast, are (likely) *sui generis* (a thing in itself) and, thus, inherently mystical regardless of how they are interpreted after the fact, e.g., as religious, spiritual, or secular.

The separation of the chapters devoted to religious experience and mysticism in the various editions of *The Psychology of Religion* reflect this distinction. Thus, beginning in the 1990s, Hood et al. (1996) define “religious experience” broadly “as any experience that is identified within faith traditions as religious,” adding that “with the possible exception of mystical and numinous experience, it is probably not fruitful to define religious experiences by their inherent characteristics.” Perhaps due to Spilka’s influence, their textbook takes an emphatically attributional approach to religious experience:

Whether an experience is religious or not depends upon the experiencer’s interpretation of it. Interpretations provide meanings not inherently obvious to those outside the tradition that provides the context for identifying any particular episode as a religious meaningful experience. Almost any experience humans can have can be interpreted as an experience of God (pp. 183-184).

By way of contrast, “what makes numinous and mystical experiences so important to study is that they are the strongest claims that people can experience foundational realities” (p. 227). This basic distinction between religious and mystical experience is maintained through

subsequent editions with minor modifications, such as treating spiritual experience alongside religious experience and downplaying the numinous in later chapters on mysticism.

Hood's approach, as he notes, contrasts with that adopted by Thalbourne, who developed the Mystical Experience Scale (MES; Thalbourne 1991) on "the basis of [his] personal experience [with manic depression] and subsequently refined [it] based on the earlier work by William James" (Lange and Thalbourne 2007, p. 122).² As a result, Thalbourne, like William James and in contrast to Hood and Stace, was far more open to the negative side of such experiences and alert to the potential overlap between experiences characterized as mystical, paranormal, and psychotic. As Thalbourne indicates:

The possibility that mystical experience involves negative qualities as well was not systematically explored until the 1990s when Thalbourne & Delin (1994) found that magical ideation, mania, and depression correlate with mystical experience. ... Whether mystical experience is to be encouraged or cautioned against is a serious issue, as Lukoff's (1985) groundbreaking paper suggests that mystical experience can have psychotic features. (Lange and Thalbourne 2007, p. 122)

As I have argued elsewhere (Taves submitted), Hood is to some extent aware of this issue, though he has not, in my view, adequately dealt with the implications. Thus, his own factor analysis indicates that experiences of unity can be experienced as negative as well as positive. Moreover, based on mental health measures administered along with the M-Scale, he found that in both the American and Iranian samples, "the introvertive factor was a predictor of psychological dysfunction" (Hood et al. 2001, p. 703). The underlying problem, I think, is that he considers "positive affect," which loads (along with noetic claims, a sense of sacredness, and

² His struggle with manic depression was known to many of his collaborators and was discussed more publicly after his death in 2010 (see <https://www.skeptic.org.uk/news/michael-thalbourne-1955-2010/>).

ineffability) on his interpretive factor “as a secondary quality, *integral to the common core experience of unity*, but on the fringe so to speak” (Hood 2013, 298, emphasis added). He views these secondary qualities as interpretations that are integral to the common core experience, but apparently not as pre-conscious appraisals of a dramatic alteration in the sense of self.

I will discuss the implications of these findings in the next section; for now I will simply note that religious experience, as defined by Hood, Hill, and Spilka, has no general measure and can appear anywhere in Figure 1. Thalbourne’s MES and his Transliminality Scale (Lange et al. 2000) query a range of unusual experiences that appear in the upper left quadrant, while Hood’s mysticism scale focuses on a particular type of experience in which the boundaries of the sense of self blur or disappear based on theories about accessing the Real.

Spirituality: As already noted, psychologists have embraced the distinction between religion and spirituality, incorporating it into their journals, textbooks, handbooks, and even the name of their APA division. The distinction, though not new, rose to prominence in the latter part of the 20th century as many Europeans and Americans began characterizing themselves as “spiritual but not religious” (Roof 1993; Zinnbauer, Pargament, and Scott 1999), that is, as embracing non-institutional spirituality but not institutional religion. Faced with the many different ways that both terms had been operationalized, psychologists of religion warned against two dangers: conceptional polarization and losing sight of “the sacred” (Hill et al. 2000). They proposed defining spirituality as “a search for the sacred,” where the sacred referred to “a divine being, divine object, Ultimate Reality, or Ultimate Truth as perceived by the individual” and religion as “the means and methods (e.g., rituals or prescribed behaviors) of the search that receive validation and support from within an identifiable group of people” (p. 66).

Building on this understanding of the sacred as the core of both religion and spirituality, Pargament (1999; see also Pargament and Mahoney 2005; Pargament 2013) -- consciously following Durkheim's lead -- theorized that if spirituality was operationalized in terms of the "sacralization" or "sanctification" of otherwise secular objects, roles or responsibilities, the consequences of doing so could potentially be measured. Conceived in this way, anything could be spiritualized, including presumably any sort of experience. Thus, as conceived by leading psychologists of religion, virtually any experience can be spiritualized and thus "count" as a spiritual experience. Thus, in contrast to mystical experiences, which, when defined based on Stace, are limited to the upper left quadrant of Figure 1, spiritual experiences can appear in any quadrant providing an individual appraises them as such. Religious experiences, too, can appear in any quadrant provided "they receive validation and support from within an identifiable group of people."

Other prominent psychologists of religion have defined spirituality differently. Ralph Piedmont, for example, defines spiritual transcendence as "the capacity of individuals to stand outside of their immediate sense of time and place to view life from a larger, more objective perspective" (Piedmont 1999, p. 988). This definition, which is based on Allport (1951), conceives spiritual transcendence as personality trait that is found across cultures and plays a distinctive role in human flourishing (Dy-Liacco et al. 2009). His Spiritual Transcendence Scale (Piedmont 1999) was designed to measure this trait, understood as the "broad domain of motivations that underlie strivings in both secular and religious contexts" (p. 989).

Conversion, Deconversion, and Spiritual Transformation. Raymond Paloutzian has played a leading role in reconceptualizing conversion as an instance of meaning system change. In placing religious conversion within a meaning systems framework, he situated it as one

among many transformational processes. The meaning system framework, which grew out of research on stress (Lazarus and Folkman 1984; Park and Folkman 1997; Park 2005), was concerned from the outset with appraisal processes. Perhaps for that reason, Paloutzian (and Park) are less concerned with operationalizing religiousness and spirituality than other psychologists of religion. Paloutzian's concern has been with the process of transformation as it is appraised by those who experience it. Relying on the meaning system framework allowed him to consider the fundamental psychological mechanisms on which life changes are based, regardless of whether they are couched in religious or spiritual language (Paloutzian 2005, p. 334). It also allowed him to work with collaborators to integrate new research on "deconversion" in the chapter written for the 2nd edition (Streib et al. 2009; Paloutzian et al. 2013).

Struggle and Coping: The research on struggle and coping picks up on the valence theme to ask whether religious and spiritual experiences are always positive. This line of research, which Julie Exline has spearheaded in collaboration with Kenneth Pargament, typically cites Pargament's widely used definitions of religion and spirituality, but in practice defines religious and spiritual struggles "as experiences of focuses of conflict or distress that center on religious or spiritual issues." Their focus has been on events that people attribute to God or a higher power, to the devil or demonic forces, to personal moral failings, or to disagreements that arise in a religious context (Exline and Rose 2005). Items in the Religious and Spiritual Struggles Scale (RSSS; Exline et al. 2014) query these four types of struggles. The items, thus, explicitly target struggles that respondents associate with God, the devil or evil spirits, moral failings, or religion/spirituality, whatever those terms mean for them.

We can contrast this scale with the Global Meaning Violation Scale (GMVS; Park et al. 2016). Whereas the RSSS investigates the extent to which an individual is troubled by religious or spiritual struggles, the GMVS probes the extent to which an individual's sense of global meaning is disrupted by a stressful experience. The RSSS starts with a religious/spiritual construct (R/S struggle) and every item in the scale makes reference to an experience that the researchers consider religious or spiritual in light of their criteria. The GMVS, in contrast, asks the respondent to "think about how [they] felt before and after [their] most stressful experience." Of the thirteen queries, only one refers to God. Others, e.g. "inner peace," might be construed by participants as religious or spiritual, but the focus is the extent to which the stressful experience violated their meaning system. Although Exline and Park are both interested in stress, struggle, and coping, their scales approach it in different ways.

In this brief overview of psychological approaches to religious, spiritual, and mystical experience, we can see a tension within the field that mirrors the difference in the two scales. On the one hand, we have those, such as Paloutzian and Park, who wish to situate religious and spiritual experiences within a meaning systems framework, which focus attention on experiences or events that individuals may or may not appraise as religious or spiritual. Others, such as Exline, Piedmont, and Hood, operationalize key terms (religious/spiritual, transcendent, or mystical respectively) in order to create a scale that allows them to measure a religious, spiritual, transcendent, or mystical construct.

Paloutzian and Park's (2005, 2013) efforts to situate the psychology of religion within a meaning systems perspective, with its concomitant emphasis on appraisal processes, shifts the center of gravity of the field from the psychology of religion and spirituality to the psychology of meaning making. Their efforts have been embraced by some (Murphy 2017; Taves 2018) and

met with resistance from others, such as Pargament and Hood. Pargament, building on earlier definitional work (Hill et al. 2000), stresses the need for scholarly definitions of religion and spirituality that allow researchers to distinguish religion and spirituality from other phenomena and from each other. “Without some sense of shared sense of its key parameters,” Pargament et al. (2013, p. 10) write, “the boundaries of our subdiscipline become so diffuse that we can lose our professional identity.”

Hood’s distinction between religious, spiritual, and mystical experience can be viewed as another line of resistance, which, while conceding that appraisal processes are work in religious and spiritual experiences, argues that they do not play the same determinative role in mystical experiences. Although Hood locates positive valence in the interpretive factor, he nonetheless characterizes the experience of unity as “mystical” rather than more generically as an experience of self-loss or ego dissolution that can be experienced (and thus unconsciously appraised) as either negative or positive.³ Research on experiences of ego dissolution induced by hallucinogens, such as psilocybin stress the crucial role of set and setting on the valence of the experience (Carhart-Harris et al. 2018). Although spiritual practices clearly do play an important role in differentiating positive and negative experiences (Kohls and Walach 2007), negative experiences also occur in the context of spiritual practice, as Lindahl et al. (2017) have demonstrated. Current research on disruptions in the sense of self suggests (1) that such experiences are not simply the product of expectations, as the constructionists might argue, (2) that they can be induced in various ways, including through R/S practices, and (3) that

³ Hood recently acknowledged (Hood, Hill, and Spilka 2018, p. 394) that new studies suggest the role that spiritual practices play in differentiating “positive experiences of ego loss (mysticism) from negative ones (psychoses)” (Kohls and Walach 2007), but this does not lead him to question the distinction he makes between religious and mystical experiences.

preconscious appraisal processes affect their valence, which in turn affects how they are experienced and characterized (for further discussion, see Taves, under review).

In so far as psychology aspires to approach experience scientifically, concerns regarding disciplinary identity or accessing the Real or Ultimate should not obscure the difficulties researchers face when they attempt to operationalize and measure complex cultural constructs, such as religious, spiritual, and also mystical experience. Because appraisal processes (Park 2010) and attribution theory (Spilka, Shaver, and Kirkpatrick 1985) distinguish between events or experiences and the way they are appraised (consciously and unconsciously), these approaches potentially undercut psychology of religion's traditional emphasis on operationalizing religious, spiritual, and mystical experience as an object of study (Taves 2009a). But, as I will argue in the next section, the psychology of religion is not alone in its attempt to operationalize complex constructs. Scales that measure ostensibly different experiential constructs, such as schizotypal, paranormal, exceptional, and psychotic experiences, are also vying for control of the unusual experiences located in the upper left quadrant.

Part II: Problems with or limitations of current practices

Hill (2013), who has written the major chapters on measurement for the subfield, highlights a range of limitations of measuring r/s constructs, some of which are due to the complex nature of the constructs in question and others inherent in measurement more generally. The difficulties both theoretical, practical, and technical. Theoretically, Hill highlights the lack of conceptual clarity in the subdiscipline, noting that good measurement must be grounded in good theory and a well-defined object of study (i.e., "construct"). Practically speaking, researchers in the psychology of religion, like other psychologists, have relied heavily on American undergraduate psychology students for their data. Such samples are not representative

of the US much less the rest of the world (on this problem, see Henrich, Heine, and Norenzayan 2010). Moreover, US samples – historically and to a lesser degree in the present – are skewed toward Protestantism. Although a few measures have been translated and administered in other cultural contexts, the majority have not. This points to the underlying issue of cultural bias, which practical concerns with regard to survey samples have largely obscured. In so far as measures tacitly reflect Euro-American cultural biases and presuppositions about religion and spirituality, we cannot simply translate them into another language, we have to determine if the questions make sense. As a result, cultural differences pose theoretical issues that must be addressed with innovative designs and technical issues regarding validity if the questions are not understood as the researchers intend in a given population.

Theoretical Issues: There are at least three ways to address the problems involved in operationalizing complex constructs, such as religiousness and spirituality: (1) agree on how to operationalize the constructs, as Hill et al. (2000) and Piedmont (2013) advocate, (2) focus on theoretically more robust constructs, such as meaning systems, as Paloutzian and Park advocate, or (3) design measures that treat cross-culturally valid constructs and appraisal queries separately. The RSSS and GMVS illustrate the first two approaches. The RSSS is designed to measure religious and spiritual struggles (a R/S construct), the GMVS is designed to measure global meaning violations (a construct derived theoretically from a meaning system framework). In the former case, the researchers had to decide what would count as R/S struggles. If they were to test this cross-culturally, they would likely have to modify their construct. God and demons/Satan might not be particularly relevant in an Asian context; moreover, in translating religious and spiritual, the terms would likely take on different meanings in new cultural contexts. In the latter case, since the focus was on a highly stressful event rather than an r/s

construct, the researchers' construct (meaning violations) would likely work across cultures, but they might have to modify or add to their queries to reflect the range of violations possible in a given context. Psychologists of religion have not yet considered the third option, which will be discussed below.

The theoretical issues involved in measuring complex constructs, such as mystical experience, which fall in the upper left hand quadrant of Figure 1, are particularly acute, since very similar experiences are included under different names, e.g. ego dissolution, hallucinations, dissociation, in competing constructs (e.g., paranormal, schizotypal, psychotic experiences) investigated by researchers in other subfields, including psychiatry and anomalistic psychology. In both, there is growing recognition of the problem. Beginning with the 4th edition, the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV, 1994), recognized that (e.g.) hallucinations and dissociation may be a normal part of religious experience in some cultural contexts (Mezzich et al. 1999). Within psychology, there is a recovery of interest in studying anomalous experiences, which has its roots in psychical research and parapsychology, but what counts as anomalous is not well defined. The two editions of the *Varieties of Anomalous Experience* (Cardeña, Lynn, and Krippner 2014), published by the American Psychological Association, include such disparate experiences as synesthesia, lucid dreaming, out-of-body experiences, hallucinations, mental healing, past-lives, near-death experiences, mystical experiences, and alien abductions. The overlap between experiences that are variously categorized as religious, anomalous, and psychiatric looks something like this (see Figure 2).

Figure 2: Phenomenological Overlap between Self-Reported Experiences characterized as Religious, Anomalous, and Pathological.

We can think of these complex constructs, such as anomalous, mystical, and psychotic experience, as clusters of items presumed to represent a type of experience. These measures of presumed clusters suffer from two limitations: first, as noted, they often include items that, when considered phenomenologically, seem similar to those in other clusters and, second, with some exceptions, they have not been adequately tested for stability across populations. Similar items may be obscured for different reasons. In some cases, researchers fail to account for similar items because they limit themselves to discipline specific measures. In other cases, the wording of items reflects disciplinary or cultural presuppositions regarding the nature or cause of the experience. The items embed implicit or explicit appraisals of the experience. If constructs are not adequately tested across populations, researchers may assume that they are measuring cross-culturally stable experiences or “natural kinds,” when we do not actually know if this is the case. The problem of artificial clusters is not limited to religious, philosophical, or parapsychological constructs, but extends to many psychiatric syndromes as well (Kendell and Jablensky 2003).

This is one of the main reasons why the NIMH is encouraging researchers to use the new Research Domain Criteria instead of the DSM categories as the basis for their research (Fellows 2017; Lilienfeld and Treadway 2016).

There are three basic strategies for overcoming this problem:

- (1) As in the psychology of religion, many researchers in psychology, psychiatry, and religious stipulate definitions. However, this tends to reinforce disciplinary taxonomies, while overlooking competing constructs.
- (2) Some are now developing targeted measures of particular experiences, e.g. of sensed presences (Barnby and Bell 2017) and self-transcendent experiences (Yaden et al. 2017). They are acknowledging the overlap between religious, paranormal, and psychiatric constructs and highlighting our limited knowledge of the mechanisms that differentiate them.
- (3) Others, studying such disparate topics as religious experience (Taves 2009a), psychosis (Ward et al. 2014; Underwood, Kumari, and Peters 2016), and placebo effects (Ashar, Chang, and Wager 2017) are arguing that appraisal processes – and thus presumably differences in belief and practice -- play a crucial role in differentiating experiences.

Cross-Cultural Issues: Psychologists who focus on anomalous experiences are also calling for more attention to cultural variations, noting that here too researchers tend to assume that anomalous experiences share “widely distributed, universal properties ... without sufficient evidence” (Maraldi and Krippner 2019, p. 2). As Maraldi and Kripner point out, we do not know to what extent cultures determine what is nonordinary or anomalous (or supernatural). Obvious differences in this regard lead them to ask whether it is even possible “to develop cross-cultural knowledge about what we currently term *anomalous experiences*?” They argue that it is possible, but refined methods are needed to do so. They raise several major concerns:

The problem of framing. Researcher are not sufficiently attentive to the impact of how questions are framed. When questions include both descriptions of and beliefs about (i.e., appraisal of) an experience, people respond differently than when they are not. In designing the Survey of Anomalous Experiences (SAE), Irwin, Dagnall, and Drinkwater (2013) created items that described paranormal experiences without using terms such as telepathy, precognition, etc. and then asked people if they considered the experiences as paranormal or simply as the result of coincidence or known psychological mechanisms. In doing so, they found that people reported having had the experiences, but did not consider them as paranormal.

Culture affects frequency. Not only does the way experiences are characterized affect the frequency with which experiences are reported, so too does the general cultural or group assessment of their value. Maraldi and Krippner indicate that researchers have demonstrated cross-cultural differences in reported frequency for out-of-body experiences, unusual dreams, and spontaneous childhood past-life experiences.

The need to get past old debates. Maraldi and Krippner describe the debate between the cultural and experience sources hypotheses, which parallels, and to some extent overlaps with, the constructionist / common core debates in religious studies, but indicate that the stronger theories, acknowledge the interplay of both factors. In their view,

the discussion regarding whether culture or universal features has primacy in accounting for AEs seems not particularly fruitful, as both factors are probably present in many if not every AE with different degrees of influence, with some AEs more directly affected by cultural expectations and beliefs (such as mediumship, (Maraldi et al. 2017), whereas other AEs serve as the experiential bases for a wide range of beliefs (such as sleep paralysis, Hufford 1982).

Maraldi and Krippner suggest that cross-cultural research with measures that distinguish experiences and beliefs/appraisal could play a significant role in disentangling these factors. This, as they indicate, has important implications for determining whether some AEs are inherently pathological or healthy and/or whether their relation to mental illness is affected by contextual factors.

Technical Issues: Although some measures of experience, including some used by psychologists of religion, have been validated across cultures, evidence of survey validity is typically based on its internal structure and relation to other variables (Maul 2018). Surveys that are administered across cultures are typically translated into local languages, but researchers typically spend little or no time determining how respondents understand the survey items in the different contexts in which the survey is administered. Cognitive interviews and focus groups can be used to determine how target populations understand items and refine them as needed. In developing the Appraisals of Anomalous Experiences Interview (AANEX) for use in psychosis research, Brett et al. (2007) used focus groups comprised of “high experiencers” drawn from both clinical and general populations to generate neutral descriptions of anomalous experiences.

Because such methods are time consuming and can be impractical, especially when working across cultures, we developed a method for validating survey items online using open-ended meta-surveys to understand how respondents interpret an item and respond to it. This process is iterative; when items are shown to be confusing, cross-culturally unstable, or interpreted differently than we intended, we use participant feedback to make needed revisions, and test these revisions across new samples of respondents (Wolf et al., in press). Item level validation offers a way to refine the wording of questions, eliminate beliefs from descriptive

queries, and determine if the neutral descriptions of experiences are recognized and understood in similar ways in different cultural contexts.

These less commonly used types of validation suggest questions that we can use to assess surveys that have been validated with conventional methods:

- 1) Is the experience described as generically as possible in terms of bodily sensations (Hinton, Howes, and Kirmayer 2008) or other phenomenological features? Are experiences distinguished from beliefs about and appraisals of the experience (e.g., of its significance, value, or cause) and queried separately?
- 2) If the construct is a cluster of several potentially distinguishable experiences, has the universality or stability of the cluster been adequately tested across cultures? Have researchers looked for other constructs that include similar items developed in conjunction with other lines of research? If potentially distinguishable experiences appear in more than one cluster, researchers should consider treating individual experience items as constructs in their own right and investigating how they cluster with other experience items in various cultural and/or clinical contexts.
- 3) If a construct is being measured with a questionnaire, have the items been translated into a local language? Have the items been validated to make sure that respondents understand them the way that researchers intend?

Part III: New Directions

As scholars of religion are well aware, virtually all religious traditions valorize religious experience, but they do not embrace religious experience in general. Instead they promote specific experiences that they view as sources of new insight and means of transforming self and world. Traditions not only cultivate some experiences, they actively disparage others. Viewed

inclusively, religious experience thus encompasses a wide range of experiences from which traditions select those they choose to valorize in any given context.

Traditional humanities methods are well suited to determine the types of experiences that a given practice tradition officially valorizes as part of its path. Other methods, however, are better suited to determining what people are actually experiencing and how they are interpreting it. Ethnographic interviews and historical sources that give insight into people's experience are of great value in this regard, but inevitably highlight individuals or small groups rather than broader patterns of similarity and difference across cultures and traditions. Well-designed surveys have the potential to collect cross-cultural data that will allow us to determine to what extent the differential valorization of experiences has a measurable effect on their distribution (their frequency and co-occurrence).

Inspired by the two recent measures of anomalous experiences that make a formal distinction between experiences and appraisals -- the SAE (Irwin, Dagnall, and Drinkwater 2013) and the AANEX (Brett et al. 2007) -- we developed the Inventory of Nonordinary Experiences (INOE) as a tool that will allow us to better understand patterns of similarity and difference across cultures and traditions. Since neither previous measure included the wide range of items needed to encompass experiences variously appraised as religious, anomalous, and psychiatric, we drew experiences from numerous measures, regardless of what they were designed to assess. Items were stripped of appraisals and combined when similar. In consultation with experts in various traditions, we added experiences that some traditions are known to valorize as religious or spiritual. We developed the appraisal items through an iterative process of consultations and pilot tests. When participants complete the Inventory, they indicate if they have had an experience with a yes/no response. If they report having had an experience, they are then asked

several context and appraisal questions. At the end, we ask demographic and individual difference questions regarding religious/spiritual identification(s), religiosity, and practice.

In contrast to surveys designed to measure complex experiential constructs, such as spirituality/religiosity, each of the INOE's experience items is a construct in its own right. We are currently in the process of validating each of the experience items in English and Hindi to assess whether the items are understood in similar ways (or even comprehensible) in both contexts. So far, we have been able to revise most items so that they are similarly understood in both India and the U.S. (for a detailed discussion of our validation process, see Wolf et al., in press). In asking the experience questions, we do not limit responses to normal waking consciousness, but instead ask respondents to tell us under what conditions the experience occurred (awake, dreaming, while exhausted, under the influence of drugs and/or alcohol, or in association with 'mind altering' practices). This allows us to sort answers based on context and determine, e.g., if experience related dreams are more frequent in some contexts than others.

Of the six appraisal items, three query the valence, significance, and effect of the experience on the person's life. They allow us to identify the most significant and life-changing experiences regardless of whether they were appraised as religious or spiritual (R/S). The other three appraisals allow us to assess religion-related aspects of the experience. The R/S query asks Americans if they consider the experience religious or spiritual (in English) and Indians if they consider it *adhyatmik ya dharmik* (in Hindi). The Hindi and English terms have culture-specific meanings that we will determine through the validation process and use to interpret responses for the population in question. The other two religion-related appraisals went through many iterations before we arrived at the current "cause" and "reason" questions. The "cause" question asks what respondents believe caused the experience (God, gods, or other deities; other

extraordinary or supernatural beings; extraordinary or supernatural forces, powers, or abilities, including your own; mental or physical illness; drugs and/or alcohol; normal mental or physical processes). We deliberately allow more than one response to the cause question because we know in that in some contexts, there is no distinction between items (e.g., “Shakti” is both a goddess and an extraordinary force or power). The “reason” question asks why the respondent thinks it happened (to offer a sign or message; to reward them or someone else; to punish them or someone else; for some other reason; for no reason). The responses to the “cause” and “reason” include a range of appraisal options that are sometimes used to distinguish religious, spiritual, and paranormal experiences. In analyzing the data, researchers can collapse the responses in various ways depending on the researcher’s interests. In that sense, we tried to avoid privileging a particular definition of religious, spiritual, or paranormal that might or might not work across cultures.

Our goal in designing the INOE was to overcome some of the limitations of extant measures and provide a more effective platform that would allow us to link humanities-style research on the experiential aspects of various religious and cultural traditions with scientific research on unusual experiences. To that end we did the following:

Artificial Clusters: Instead of creating a measure of religious, mystical, near death, kundalini, or paranormal experiences premised on the belief that these are cross-culturally stable constructs, we included individual items that are associated with each in order to see if they cluster in different cultural contexts. Because each item is its own construct, researchers do not have to administer the inventory as a whole, but can select items of interest. Although we are interested in mapping what counts as “religious experience” in everyday life across cultures and traditions, the INOE is a very flexible tool that can be used for a variety of purposes.

Operationalizing Religious, Spiritual, Paranormal, Psychotic, Magical, etc.: We stripped these connotations from descriptions of experiences and operationalized them in new ways in the appraisals. We retained the terms “religious” and “spiritual” (R/S) in the English version, but we are not operationalizing them. We will determine what respondents mean when they use these terms through the validation process. Moreover, as an appraisal, this item does not have to be translated in the “same” way in every context, e.g., it can be translated in terms of “dharma” in India or “dao” in China, and the meaning of the key term for respondents ascertained through the validation process. If a respondent appraises an experience as “spiritual” in the US and “dharmic” in India, the meaning has to be understood in context. The responses are not equivalent. We operationalized explanations typically associated religious, paranormal, and pathological experiences in the “cause” appraisal, where we allow respondents to choose more than one cause and researchers to sort responses based on the causes of interest to them. We operationalized what some might view as religion, magic, or superstition in the “reason” appraisal.

Finally, as noted earlier, the inventory cannot (and is not intended to) replace analysis of the experiences that traditions valorize through their teachings and practices, whether in the past or the present. The INOE presupposes this sort of research and seeks to understand how the valorization of certain experiences affects the reported frequency, clustering, and appraisal of experiences in different cultural contexts.

Pilot studies using prevalidated versions of the INOE have demonstrated the potential of this approach. Participants recruited via Amazon Mechanical Turk (MTurk) in the US (n=843) and India (n=721) revealed both commonalities and differences in the frequency, clustering, and appraisal of items. Analysis of our preliminary data indicated that the frequency with which

some, but not all, experiences were reported differed. For example, experiences of déjà vu, lucid dreaming, dread, loss, and bodily sensations (such as goosebumps), were reported with approximately the same frequency in both contexts, while other experiences, such as revealed messages, past life memories, foreign control of the body, and another self in the body, were reported far more frequently in India than the US. Furthermore, exploratory factor analysis produced seven culturally recognizable clusters for the US (e.g., positive and negative emotions, out of body, mysticism, beings), but only two (quite different) clusters for India. Pilot data from the European Summer Research Institute (ESRI, n=51), which included many meditators (88%), yielded high frequency scores on meditation related items presumably linked to practice. Pilot data collected from college students in each of five countries (the US [n=104], China [n=95], Thailand [n=106], Vanuatu [n=99], and Ghana [n=134]) suggest that experiences of presence, whether of forces, entities, or the dead, are the most commonly appraised as r/s across all five cultures.

Conclusion

Within the psychology of religion and spirituality, most researchers have acknowledged that any experience can be appraised as religious or spiritual and, therefore, recognize that what counts as religious or spiritual is a matter of discernment on the part of individuals, groups, cultures, and traditions. Some, such as Hood, hold out the possibility that this does not hold true for mystical experiences, defined as positive experiences of undifferentiated unity. A broader comparative framework, however, indicates that such experiences are more accurately viewed as alterations in the sense of self that are unconsciously appraised as positive or negative. The unconscious appraisal processes can affect how the alterations are experienced and characterized, whether they occur spontaneously, are drug induced, or are cultivated in the context of spiritual

practices. Although people typically view these sudden positive transformations as highly significant, they do not offer a basis for declaring mystical experiences *sui generis* or making scientific claims regarding Ultimate Reality.

Psychologists of religion are currently grappling with the implications of an appraisal-based approach to the study of experience. Like many scholars of religion, some operationalize (i.e., define) their key terms – religiousness and spirituality -- both for research purposes and out of a perceived need to preserve their object of study and sense of disciplinary identity. The phenomenological overlap between self-reported experiences characterized as religious, anomalous, and pathological suggests the limitations of a narrowly disciplinary focus. Others, recognizing the importance of appraisal processes, have pushed back against this tendency, arguing that theoretically more robust concepts, such as meaning systems, provide a more solid basis for research.

Due to its traditional reliance on measures administered to North American and European samples, psychologists have only just begun to consider the implications of extending an appraisal-based approach across cultures, traditions, and language groups. As an appraisal-based measure, which we are validating at the item level in two distinct cultures, the INOE is breaking new ground. As a tool, it is designed to identify population level similarities and differences in a linguistically and culturally appropriate way. Although it will allow us assess the extent to which the differential valorization of experiences has a measurable effect on the frequency with which they are reported and the experiences with which they co-occur in the US and India, we will – of necessity – rely on historical and ethnographic research in order to interpret our findings. As a measurement-based approach, the INOE is intended to complement historical and ethnographic methods, which are better positioned to identify the types of experiences that

practice traditions valorize and to offer nuanced analyses of the way individuals and groups are interpreting their experiences. In developing it, we hope to advance the use of mixed methods in the study of the experiences that valorized and cultivated by various practice traditions.

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