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What Counts as Religious Experience? The Inventory of Nonordinary Experiences as a Tool for Analysis across Cultures

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Abstract

When operationalizing ‘religiosity’ or ‘spirituality’ or ‘religious experience’ as measurable constructs, researchers tacitly treat them as if they were cross-culturally stable ‘things’ rather than investigating the way culturally-laden concepts, such as ‘religious’ or ‘spiritual,’ are used to interpret or appraise contested aspects of human life within and across cultures. To illustrate the distinction, we contrast the traditional research design that the Religious Experience Research Centre used to survey and compare “religious experience” in the UK and China with the appraisal-based design used by the Inventory of Nonordinary Experiences (INOE). Instead of operationalizing “religious experience,” the INOE distinguishes between generically-worded experiences and the way the experiences are appraised. When coupled with item level validation to ensure that queries are understood as intended, the generically-worded experiences function as common features that allow us to compare similarities and differences between culturally-embedded “lived” experiences. Separating generic experiences from appraisals allows us to (1) treat culture-bound concepts, such as ‘religious’ and ‘spiritual,’ as appraisals, and (2) view these and other concepts (e.g., *dharmic*, paranormal, psychotic) as advancing claims about how and why an experience occurred. In so far as we can establish the cross-cultural validity of common features, we can set up culturally-balanced (rather than Western-centric) comparisons and avoid operationalizing culture-specific concepts.

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Introduction

The conference organizers have asked us to consider a central question – whether our concept of religiosity and measures derived from it suffer from a Western Christian bias such that we cannot extend this concept across cultures. With respect to the concepts and measures we know best – those having to do with various forms of religious and mystical experience – there are definite problems (Taves, in press a, b). Scholars in the humanities have stressed the Western origin of complex concepts such as “religion” (Dubuisson, 2007; Fitzgerald, 2003; Nongbri, 2013). As a result, many avoid comparative studies and focus instead on individual cases. Many psychologists and sociologists of religion continue to operationalize religious concepts to create scales, which they then translate for use in other cultures. Thus, while humanities scholars tend to avoid the problem, social scientists tend to ignore it. How might we face this problem directly?

We can start by reframing the problem as matter of research design that must be addressed when setting up comparative studies. All comparisons have a common feature that links the two things we want to compare (Freiberger, 2019). If we want to compare squares and pentagons and assume that squares are a common feature, then pentagons will be viewed as deformed or misshapen squares (see Figure 1). If we use local (Western, Christian derived) concepts to set up comparisons between two contexts that do not share them, the results will be cast in the terms of the false (Western Christian) universal. The challenge is to identify a more neutral or even-handed point of comparison, so that we can analyze the similarities and differences between the two contexts without favoring one or the other. In this case, if we make our common feature a polygon (n sides), it would include both four and five-sided shapes, while privileging neither.

Figure 1: Unbalanced (Biased) and Balanced (Unbiased) Comparisons based on Locally vs Mutually-derived Common Feature(s).

Notice, also, that moving to a more inclusive, even-handed common feature means that other shapes, which we might not otherwise have thought to consider, could also be included in the set of items we are comparing.

How might we approach potentially culture-laden concepts, such as religion and religious experience, in a similarly even-handed way? Here's the basic procedure we suggest.

- 1) Instead of trying to operationalize 'religion,' we can turn it into an adjective that modifies something — a type of behavior, event, experience, or object. As such, we can treat it as an appraisal rather than an inherent feature of the thing in question (Taves, 2009).
- 2) We can seek to characterize behaviors, events, experiences, or objects of interest in cross-culturally recognizable terms. If they are recognized across cultures, they can function as a common feature that links particular culturally-embedded and culturally-interpreted instantiations of the generic thing. These generically expressed behaviors, experiences, and events — like the polygon — can accommodate more variation and (ideally) would not privilege

particular cultural instantiations. As we saw with the polygon, however, the range of instantiations will likely expand to include instances we might not have anticipated. In an appraisal-based approach this is not a problem, because the goal is to see how the people we are studying understand the common feature.

3) We can test to see if people understand our generically worded behaviors, events, etc. as we intend and can identify specific instances in their own cultural context. If we are designing a questionnaire or an interview, we can still operationalize whatever we view as ‘religiosity.’ But in this approach, it becomes one of several interpretive options and, thus, viewed as an appraisal that we can translate into local, culture-specific terms.

Two Approaches to the Study of Religious Experience

We can illustrate the problem and proposed solution in relation to the study of ‘religious experience.’ The well-known studies of religious experience in the UK conducted by Sir Alister Hardy, the founder of the Religious Experience Research Centre (RERC), and extended to China by Xingzhong Yao and Paul Badham, offer a good example of the traditional approach. We use the theoretical framing of the China study to illustrate the problem with the traditional approach and contrast it with the theoretical frame we used to design our Inventory of Nonordinary Experiences (INOE). In discussing the Inventory, we will focus on its design and the core premise that informs it -- that we can tease apart generic experiences and local appraisals -- and, most crucially, on how we can test to see if ostensibly generic experiences are actually understood across cultural contexts.

The Traditional Approach

We can begin by looking at what happened when researchers attempted to extend Sir Alister Hardy’s research on religious experience in the UK to China using the traditional

approach. As its name suggests, the aim of the Religious Experience Research Centre (RERC), which was founded by Sir Alister Hardy at Manchester College, Oxford in 1969 and moved to the University of Wales in July 2000, is to study religious experience. Hardy was particularly interested in contemporary experiences or, in his words, “spiritual feeling in a scientific age.” Hardy defined spiritual feeling as “a feeling of being in touch with what appears to the person concerned to be a benign power beyond the self,” which could manifest as a discrete experience or a continuous disposition (Hardy, 1979, p. 4).

Hardy solicited accounts of such experiences from people by placing a prompt, often referred to as the Hardy question, in numerous periodicals throughout the UK. The prompt read as follows: “All those who feel that they have been conscious of, and perhaps influenced by, some Power, whether they call it God or not, which may either appear to be beyond their individual selves or partly, or even entirely, within their being, are asked to write a simple account of those feelings and their effects” (Hardy 1979, p. 18). Hardy received numerous accounts, which he then classified into various types, including sensory (visual, auditory, touch, smell), extra-sensory, enhanced or superhuman power displayed by humans, cognitive and affective elements, and dream experiences (Hardy 1979, pp. 31-81).

When Paul Badham, now emeritus professor of theology and religious studies at the University of Wales, took over as the director of the Research Centre in 2002, he and his then colleague Professor Xinzhong Yao obtained a four-year grant from the John Templeton Foundation to study religious experience in China. They were assisted by scholars from seven Chinese universities and trained 110 interviewers in order to collect over 3,000 structured interviews from ten representative locations across China (Yao & Badham, 2007).

Scholars of religion, however, were quite critical of the study (Badham, Davies, & Bocking, 2008). Yao and Badham were aware of many of the issues their study need to address. Most critically, they recognized early on that they could not simply translate extant surveys of religious experience into Chinese, largely because most Chinese do not consider themselves religious. As a result, they went through a lengthy process of indigenizing their survey in order to operationalize “religious experience” in a manner that was appropriate in the Chinese context. Figure 2 displays the flow chart for their design process.

Figure 2: Flow chart for the survey design process
(Yao & Badham, 2007, pp. 12-13).

Notice, however, that they started with a framework. Here is the framework that guided their design (see Figure 3).

RELIGIOUS EXPERIENCE IN CONTEMPORARY CHINA

Figure 3: The traditional theoretical framework guiding Yao and Badham's questionnaire design (Yao & Badham 2007, p. 14).

Their theoretical approach placed “religious experience” at the center. This meant that Yao and Badham had to decide what counted as religious experience in China and design an interview protocol that allowed them to investigate it.

Based on their lengthy process of discussion, consultation, and pilot testing, they conceived religious experience in China as including the following types of experience (Yao & Badham, 2007, pp. 32-33).

1. Experiencing the influence or control of a spiritual being or power
2. Experiencing a new understanding that has caused a change to one's way of life
3. Having a dream that is extraordinary but is believed to be true
4. Having a mysterious feeling such as hearing, seeing, smelling or being touched
5. Having a visionary experience either alone or together with others
6. Experiencing union with the universe in which one has forgotten the existence of one's self and become one body with the universe

7. A final broad category for all those experiences that are not or cannot be included in the above six.

Looking at this list, we can ask what makes these experiences “religious” and, more pointedly, whether they are distinctively religious. Do we want to call experiences “religious” or “spiritual” if other researchers would place similar experiences on measures of anomalous or psychotic experiences, as is the case with types #1 and #4-6? Do we want to call experiences “religious” or “spiritual” even if those who have had the experiences do not consider them religious or spiritual, as is plausibly the case with types #2 and #3? What do we miss if we – as researchers – appraise as “religious” experiences that others can and do appraise differently?

In his critique of Yao and Badham (2007), UK scholar of religion, Brian Bocking (2008, pp. 21-22) stressed this problem: “The key issue is of course the genealogy of the term ‘experience’ and its (largely unconscious) deployment by successive scholars of religion to mark out an area of human existence which is distinctively religious and quintessentially private, personal and thus beyond reductive explanation.” Or, as we would state it, researchers continue to operationalize religious experience *for the purposes of their research* as if it were a both a unitary and cross-culturally stable concept, when we know: (1) that there are many different types of experiences, each of which could be appraised in various ways and (2) that traditions valorize some experiences, disparage others, and encourage people to cultivate those experiences that they value.

An Alternative Approach

In designing the INOE, we recognized that religious experience is neither a unitary nor a cross-culturally stable concept and, in light of that, we had no desire to “mark out an area of existence ... beyond reductive explanation.” We were aware that phenomenologically similar

experiences studied by psychiatrists, psychologists, and scholars of religion may be either transformative or debilitating and we wanted to design an instrument that would allow us to investigate why similar experiences can have such different effects. We were also aware that people often appraise phenomenologically similar experiences in different ways and wanted to recognize these local differences and investigate their impact on people's lives. To investigate these questions, we did not start with religious or spiritual experiences. Instead, we began with generically-worded questions about a variety of experiences that most would consider at least somewhat nonordinary.⁴ This resulted in a new design, premised on the theoretical framework displayed in Figure 4.

Figure 4: The theoretical framework guiding the design of the INOE.

This framework inverts Hardy's procedure (see Table 1). Whereas the traditional approach operationalizes religious experience and then categorizes the experiences reported according to

⁴ We recognize that "nonordinary" is a vague term, subject to interpretation based on a variety of factors. We use it here and in the name of the INOE to signal the INOE's focus. Because we are not treating the experiences as a set, we include a wide range of experiences, some more "nonordinary" than others, that are valorized and cultivated in some cultures or traditions without claiming to be exhaustive.

types, the INOE queries various types of experiences regardless of whether they are appraised as religious or spiritual, then asks those who report a given experience to indicate the frequency and context of the experience and the way that they appraised it.

Two Approaches Compared	
Traditional Approach	Alternative Approach
RSE Prompt (Hardy Question)	Query Experiences (INOE) <ul style="list-style-type: none"> • Sense of nonordinary presence [9] • Altered sense of self [7] • Sensory or quasi-sensory [6] • Extra-sensory & enhanced abilities [6] • Cognitive [3] and affective [9] • Meaning-related [5] • Miscellaneous [9]
Classification of Responses <ul style="list-style-type: none"> • Sensory (visual, auditory, touch, smell) • Extra-sensory • Enhanced or superhuman power displayed by humans • Cognitive and affective elements • Dream experiences 	If ‘yes,’ then ask: <ul style="list-style-type: none"> • Frequency and Context • Valence, Significance, Effect on Life • Cause, Reason, and S/R

Table 1: Comparison of Traditional and Alternative Approach. Note: The numbers in brackets indicate the approximate number of items of each type that we are attempting to validate.

The Inventory of Nonordinary Experiences (INOE)

Design

The INOE is premised on the idea that we can separate generically-worded experiences and appraisals. In taking this step, we drew inspiration from two previous efforts: the Appraisal of Anomalous Experiences Interview (Brett et al., 2007), developed by psychosis researchers, and the Survey of Anomalous Experiences (Irwin, Dagnall, & Drinkwater, 2013), a self-report measure that queries experiences often appraised as paranormal. As an inventory, the INOE is not designed to measure an overall construct, whether religious, mystical, paranormal, or psychotic. We do not assume that the items, when taken together, constitute or measure any

particular type of experience. Because each of the experience items stands on its own, researchers can select items of interest from the INOE to create surveys of varying lengths.

To develop the INOE items, we reviewed dozens of existing scales that queried experiences regardless of whether they were designed to measure religious, mystical, spiritual, anomalous, or psychotic experiences. We extracted experience-related items, consolidated similar items, and revised items to eliminate appraisals. Then, in consultation with experts, including historians and ethnographers, we added items valorized and cultivated by particular traditions that did not appear on the scales we reviewed.

To give an idea of how this worked, we will focus on our “Guidance” question, which is a variant of the Hardy Question. If we look at three guidance-related items -- the original Hardy Question, the back translation of the Chinese version, and an item from the Daily Spiritual Experiences Scale (DSES) – we find that they all specify who or what is guiding (highlighted in bold) and how it felt (highlighted in italics).

- HARDY: Being “*conscious of, and perhaps influenced by, some Power, whether they call it God or not, which may either appear to be beyond their individual selves or partly, or even entirely, within their being,*”
- CHINA: “Experiencing the *influence or control* of a **spiritual being or power.**”
- DSES: “I feel *guided by God* in the midst of daily activities.”

To generate our Guidance item, we modified both elements. With respect to who or what was guiding, we wanted to convey the idea of a guiding presence with its own agency or intentionality that might or might not be appraised as spiritual or religious, including (e.g.) ancestors, the deceased, and alter personalities. To get at this, we replaced “Power”, “God”, and

“spiritual” with “a power other than myself.” We also adjusted the description of how it felt to make it as neutral as possible. We eliminated “conscious of” and “control of” to create a middle ground that involved guidance from an “other” that could be either positive or negative, sought or unsought. Our initial version of the Guidance item, prior to validation, thus read: “I have had an experience of being *guided or influenced* by **a power other than myself.**”

The initial unvalidated version of the INOE, which we used to collect preliminary data in the US and India in English, contained 75 generically-worded experience items and 9 follow-up descriptors (frequency, context) and appraisal items. We also created a pencil and paper version, comprised of 60 of the unvalidated experience items and 5 context and appraisal follow-up items, for inclusion in a five-country study conducted by anthropologist Tanya Luhmann. The most up-to-date version of the INOE contains more than 80 experience items; we are in the process of simultaneously validating approximately 60 of the items in the US (in English) and India (in Hindi).

When participants take the survey online, they give “yes” or “no” answers to all the experience items and then are asked follow-up questions about the experiences they report having had. In the paper-and-pencil version (P/P), the experience item and the follow-up questions appear together. Table 2 illustrates an item and the follow-up queries used in the Luhmann five-country study (see Table 2; the labels in brackets are not included in the actual P/P format). The experience item is on the left, the response options in the middle, and the context and appraisal queries on the right.

case. This crucial aspect of validation, thus, has been systematically overlooked in the field of psychological measurement and survey methodology.

The INOE does not evaluate the entire set of items as one. Each item stands on its own. Each item in the inventory is intended to determine whether the participant can remember a lived experience that includes the feature the item is designed to measure. Thus, to validate each item, we need to (a) find evidence that the unique feature exists and is recognizable, and (b) find words that can be used to describe it in a way that will be understood by most people in the population. Validation of the INOE, in other words, requires us to provide evidence that people understand experience items as we intend them to be interpreted. Although qualitative methods, such as cognitive interviews or ethnographies, have traditionally been used to do this, the sample sizes that can be collected using these methods are limited (Padilla & Benítez, 2014). To find out whether participants understand items on a larger scale, Melissa Gordon Wolf, a member of our team with expertise in measurement, developed the Response Process Evaluation (RPE) method, which our team is refining and testing (Wolf, Ihm, Maul, & Taves, in press).

The RPE method is a meta-survey, or a survey about surveys, designed to see if people understand the items as we intend. We administer the meta-survey online, but instead of simply responding to the experience items, we ask people a series of meta-questions about each item. These include asking participants to paraphrase the survey item, indicate how they would respond, and give actual or hypothetical examples of the experience item we are querying. We analyze their responses code each as “understood,” “not understood,” or “unclear” based on criteria that we establish a priori for each item.

We are currently validating individual items simultaneous in two languages – English in the US and Hindi in India – using two teams of coders that meet weekly to compare results. Our

goal is to create a final form of the experience item that is understood as intended at least 80% of the time in both countries. Simultaneous validation in two contexts allows us to adjust the wording in both contexts without privileging one context over the other. Responses are collected from five participants at a time, so that we can adjust the wording immediately if we identify problems. Once we have the item in a form that participants seem to understand, we test this by collecting twenty evaluations. This method allows us to incorporate the population of interest into the generation and revision of items on a large scale, resulting in items that are organic, culturally sensitive, and culturally meaningful.

We can use the Guidance item to illustrate how the validation process works. Our intended interpretation for this item specifies that for a response to count as “understood,” the response must involve a sense of an “other,” whether perceived as an agent (e.g., deity, spirit, ancestor, deceased person, or alter personality) or a more amorphous power, force, or energy, *that conveys a sense of what the individual should do* through perceived internal or external cues or messages. The wording of the Guidance item builds on our Presence items, which query the presence of a nonordinary “other,” but specifies that this other must be perceived as communicating in some way. It contrasts with our Messages item in that it requires a sense of an “other” that communicates in some way and not just a message.

Table 3 illustrates how we coded selected responses to the initial version of the Guidance item. The item is at the top. Three of the meta-questions appear on the line below. Three sets of participant responses (P1...P3) are given in the color coded bars below the meta-questions. Because the first participant (P1) clearly understood the item, we coded P1’s response green for “understood.” P2 and P3, however, view ordinary humans and organizations as powers other than themselves. We coded these two responses orange for “not understood” to indicate that

they weren't what we intended. The respondents weren't necessarily paraphrasing the item incorrectly – but their paraphrase included more than we wanted and signaled that we needed to modify our item.

Item: I have had an experience of being guided or influenced by a power other than myself.

What do you think this question is asking?	Which response option, would you pick? y/n	Briefly describe your experience of being guided or influenced by a power other than yourself.
P1: Have I had a personal experience with God.	Yes	P1: I have felt God speaking to me. There have been things that he wanted me to do and I did them.
P2: Being assisted by other people or organizations at a time when you are unable to help yourself.	Yes	P2: I have been homeless before and I was helped by family members and homeless shelters.
P3: I think it means getting help/guidance from someone, such as a parent or mentor.	No	P3: Asking my parents for help/advice through a difficult time.

Table 3: Initial Coding of Guidance Item. The item queried is at the top. Three of the meta-questions are underneath. Three participant responses for are shown (P1-P3). Green (P1) = understood as intended. Orange (P2 & P3) = not understood as intended.

In light of these responses, we revised the item to exclude guidance from ordinary sources, such as parents, mentors, or service organizations. The revision led to responses that were more closely aligned with our intended interpretation (see Table 4). These examples illustrate the range of lived experiences that this item is capturing, which is likely much wider than what would have been captured by either the DSES or the Hardy Question. Thus, P1 gives a typically religious example of being guided by God. P2, however, describes an “otherworldly force” that seemed to guide him while under the influence of LSD. Just as we hoped, he focuses on how the experience felt rather than on how he appraised it, noting that “[a]ny logical person would attribute that [the feeling of being guided] to the effects of the drugs, but it doesn't change the way I felt at the time.” P3 describes a very different experience in which he felt as if he were

being guided physically by “someone else” in the context of a bicycle race, indicating “I felt as if I had stepped outside of my body and was being carried by someone else as I could not feel my body controlling my actions.”

Revised Item: I have had an experience of being guided or influenced by what seemed to be a non-ordinary power or being.

What do you think this question is asking?	Which response option, would you pick?	Briefly describe your experience of being guided or influenced by what seemed to be a nonordinary power or being.
P1: Being guided by a spiritual entity, maybe?	No	P1: [Hypothetical Example:] Seeing God's face in your mind and him telling you to act a certain way.
P2: [It means] that someone has experienced a spiritual journey guided by a hand other than themselves.	Yes	P2: [During college] I had a few [deeply spiritual] hallucinogenic experiences with LSD ... exploring the complexities of existence within my own mind with some otherworldly force guiding me. <i>Any logical person would attribute that to the effects of the drugs, but it doesn't change the way I felt at the time.</i>
P3: When I felt a force stronger or greater than me was helping me out or guiding my actions.	Yes	P3: I was in a ... bike race and I felt as if I had stepped outside of my body and was being carried by someone else as <i>I could not feel my body controlling my actions.</i>

Table 4: Coding of Revised Guidance Item. The revised version of the item queried is at the top. Three of the meta-questions are underneath. Three participant responses for are shown (P1-P3). Green (P1-P3) = understood as intended.

Context and Appraisal Queries

The follow-up queries, which we will be validating using a similar method, allow us to distinguish the different contextual and cultural frames in which the experience item is embedded. Table 5 depicts the current versions of the context and appraisal queries.

<p>[PRESENCE (non-human)]</p> <p>I have sensed the presence of what seemed to be non-ordinary forces or beings.</p>	<p>YES If yes, answer questions in right column</p> <p>NO</p>	<p>[CONTEXT] Under what condition did this experience occur?</p> <ul style="list-style-type: none"> • Waking, normal state • Waking, in association with "mind altering" practices or substances • Asleep or between waking and sleeping <p>[VALENCE] While this experience was occurring, how did it feel?</p> <ul style="list-style-type: none"> • Somewhat negative • About neutral • Somewhat positive <p>[SIGNIFICANCE] How significant has this experience been for you?</p> <ul style="list-style-type: none"> • Not significant • Somewhat significant • Very significant <p>[EFFECT] How, if at all, has it affected your life?</p> <ul style="list-style-type: none"> • -2 Very negative effect • -1 Somewhat negative effect • 0 Little or no effect, positive or negative • 1 Somewhat positive effect • 2 Very positive effect 	<p>[CAUSE] What do you believe caused this experience? Select the primary cause(s).</p> <ul style="list-style-type: none"> • God, gods, or other deities • Other extraordinary or supernatural beings (human or nonhuman) • Extraordinary or supernatural forces, powers, or abilities, including your own • Normal mental or physical processes • Drugs and/or alcohol • Mental or physical illness <p>[REASON] Why do you think it happened? Select the closest answer.</p> <ul style="list-style-type: none"> • To offer me a sign or message. • To reward me or someone else. • To punish me or someone else. • For some other reason. • For no reason. <p>[S/R] Do you consider this experience spiritual or religious?</p> <ul style="list-style-type: none"> • Yes • No
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Table 5: Sample Experience Item (left column) and current Context and Appraisal Queries (right two columns) in Pencil and Paper (P/P) Format. Labels in brackets would not be included in an actual P/P format.

The queries in the middle column provide basic information about the experience: the condition under which it occurred (waking, sleeping, or in association with “mind altering” practices or substances), its valence (positive, negative, or neutral), its significance for the experiencer, and its effect on their life. These queries are quite straightforward and appeared in similar form in the pilot versions. The right-hand column asks people what they thought caused the experience, whether they thought it occurred for a reason, and whether they thought it was spiritual or religious. In the wake of the pilot tests, we completely reworked the response options for the cause question and developed the reason question. Although the spiritual/religious query was included in the pilot version, its translation raises important issues. These three appraisal queries allow researchers to tailor the INOE to specific cultural contexts and research questions without getting bogged down in operationalizing complex cultural concepts, such as “religion.”

Cause and Reason. In developing the pilot version, we experimented with many shorter sets of responses to the Cause appraisal query, one of which is illustrated in Table 2. After much discussion and consultation, we decided on a more elaborate list that would allow researchers to distinguish between various supernatural / extraordinary causes, on the one hand, and experiences induced by normal, abnormal, or pharmaceutical causes, on the other. The first three response cover the extraordinary / supernatural terrain: (1) deities, (2) other nonhuman beings, such as angels, demons, fairies, ghosts, ancestors and extraordinary humans, such as messiahs, avatars, prophets, saints, and gurus, and (3) various forces, powers, and abilities, including paranormal abilities. The second set of three options are carefully worded to cover experiences that respondents attribute to drugs, practices, normal mental or physical processes, or illness.

Notice that we allow respondents to select more than one primary cause. This means that they could view the supernatural as operating through normal mental or physical processes, illness, or drug-induced experiences. It also means that extraordinary items can be viewed as co-extensive or overlapping. Thus, an Indian who attributes an experience to Shakti, who is both a goddess and a spiritual energy, could select the first and third response options.

We added the Reason appraisal query in order to capture divinatory type phenomena. We were prodded in this direction by our factor analysis of the Indian pilot data, which suggested that many experiences were reported more frequently in India than in the US because they were thought to be potential “signs” of something, i.e., carriers of deeper or hidden meaning.

Taken together the response options for the Cause and Reason appraisal questions can be viewed as operationalizing not only “religiosity,” but also constructs, such as spiritual, paranormal, magical, or superstitious. We included a wide range of response options associated

with these overlapping cultural concepts in order to reflect many possible definitions without preselecting -- or forcing researchers to adopt -- any particular definition. This means that, when analyzing their data, researchers can group responses to the Cause and Reason queries in light of their theoretical interests and characterize their findings in relation to various conceptual frames.

Spiritual/Religious. The S/R query, which includes two hard-to-define and culture-specific terms, illustrates another feature of the INOE. By removing complex cultural concepts from the experience items, we aimed to generate items that could be understood across cultures. Because the appraisals are inevitably-culture specific, we can and indeed must use some culture-specific terms there. In the case of appraisals, we use the validation process to determine the meaning of the response options in a given cultural context. We can then interpret the appraisals in light of that meaning.

This means that key terms, such as religious and spiritual, can be “translated” in culturally appropriate ways with full awareness that the translated terms may have very different meanings. The differences in meaning, as determined through the validation process, can then be used to interpret responses. Because scholars have long insisted that *dharma*, the term typically used to translate *religion* in the Indian context, does not mean the same thing, the Indian context provides a particularly good example of the benefits of an appraisal-based approach. Here is how we are translating the S/R query into Hindi:

[English] Do you consider this experience **spiritual or religious?**

[Hindi] Kya aap is anuhav ko **adhyatmik ya dharmik** mante hai?

A ‘yes’ answer to this question will not mean the same thing in the US and in India. Rather, based on the validation process, we will use the local understanding of these terms to interpret

responses. We anticipate that *religious* and *dharmik* (Sanskrit, *dharma*) may be understood quite differently, while *spiritual* and *adhyatmik* may convey something similar in both contexts.

Instead of treating “religion” as a universal concept, the design of the INOE allows researchers to acknowledge that “religion” does not necessarily have precise equivalents in other languages and cultures. Researchers can use “religion” in those contexts where it is culturally appropriate and incorporate other key concepts, such as *dharma* in India or *dao* in China, as appropriate. Through the validation process we can establish the range of meaning of these key terms have in different populations and use what we learn to interpret responses to the S/R query in culture-specific ways.

Conclusion

As this extended example is designed to illustrate, an appraisal-based approach to experiences and other “things” offers a potentially more culturally-balanced way to set up comparisons involving complex, culture-laden concepts, such as “religion.” As we have seen, however, separating “things” from their appraisals can be complicated. As a result, the appraisal-based approach we are recommending requires extensive testing to determine how -- if at all -- queries regarding behaviors, events, experiences, or objects can be formulated in a way that is understood as intended across cultures. If people do not understand queries in the way we intend across cultures, this may suggest that our queries are still culture-specific and need further refinement. If they can be formulated in a way that is understood across cultures, they can then function as a common feature that links two or more local, culturally-embedded instances of that common feature. In so far as we can do this, we can generate a middle ground between operationalizing culture-specific concepts for comparative purposes, on the one hand, and focusing solely on local phenomena, on the other. At the same time, we can capture various

meanings of “religion” and “religious” (and related terms) via appraisal options. In this approach, “religion” and “religious experience” are still studied, but they are no longer the central construct.

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References

- ARRA, APA, & NCME. (2014). Validity. In *Standards for Educational and Psychological Testing*. Amer Educational Research Assn.
- Badham, P., Davies, D., & Bocking, B. (2008). Religious Experience—Discussion Topic. *BASR (British Association for the Study of Religions) Bulletin*, 112, 14–22.
- Bocking, B. (2008). A Reflection on ‘religious experience.’ *BASR (British Association for the Study of Religions) Bulletin*, 112, 21–22.
- Borsboom, D. (2008). Latent Variable Theory. *Measurement: Interdisciplinary Research & Perspective*, 6(1–2), 25–53. <https://doi.org/10.1080/15366360802035497>
- Brett, C. M. C., Peters, E. P., Johns, L. C., Tabraham, P., Valmaggia, L. R., & McGuire, P. (2007). Appraisals of Anomalous Experiences Interview (AANEX): A multidimensional measure of psychological responses to anomalies associated with psychosis. *Br J Psychiatry Suppl*, 51, s23–30. <https://doi.org/10.1192/bjp.191.51.s23>

- Dubuisson, D. (2007). *The Western construction of religion: Myths, knowledge, and ideology*. Baltimore: Johns Hopkins University Press.
- Fitzgerald, T. (2003). *The ideology of religious studies*. New York, N.Y.: Oxford University Press.
- Freiberger, O. (2019). *Considering comparison: A method for religious studies*. New York, NY: Oxford University Press.
- Hardy, A. C. (1979). *The spiritual nature of man: A study of contemporary religious experience*. Oxford : New York: Clarendon Press ; Oxford University Press.
- Irwin, H. J., Dagnall, N., & Drinkwater, K. (2013). Parapsychological experience as anomalous experience plus paranormal attribution: A questionnaire based on a new approach to measurement. *Journal of Parapsychology*, 77(1), 39–53.
- Nongbri, B. (2013). *Before religion: A history of a modern concept*. New Haven: Yale University Press.
- Padilla, J.-L., & Benítez, I. (2014). Validity evidence based on response processes. *Psicothema*, (26.1), 136–144. <https://doi.org/10.7334/psicothema2013.259>
- Taves, A. (2009). *Religious experience reconsidered: A building-block approach to the study of religion and other special things*. Princeton, N.J.; Oxford: Princeton University Press.
- Taves, A. (in press, a). Mystical and Other Alterations in Sense of Self: An Expanded Framework for Studying Nonordinary Experiences. *Perspectives on Psychological Science*.
- Taves, A. (in press, b). Psychology of Religion Approaches to the Study of Religious Experience. In P. Moser & C. Meister (Eds.), *The Cambridge Companion to Religious Experience*. Retrieved from <https://share.osf.io/preprint/46149-4A7-A16>

- Wolf, M. G., Ihm, E., Maul, A., & Taves, A. (in press). Survey Item Validation. In S. Engler & M. Stausberg (Eds.), *Routledge Handbook of Research Methods in the Study of Religion: Vol. 2nd edition*. Retrieved from <https://share.osf.io/preprint/460FF-5A1-E1F>
- Yao, X., & Badham, P. (2007). *Religious experience in contemporary China*. Cardiff: University of Wales Press.