

Clusters of Individual Experiences form a Continuum of Persistent Non-Symbolic Experiences in Adults

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Abstract

Persistent forms of nondual awareness, enlightenment, mystical experience, and so forth (Persistent Non-Symbolic Experience) have been reported since antiquity. Though sporadic research has been performed on them, the research reported here represents the initial report from the first larger scale cognitive psychology study of this population. *Method:* Assessment of the subjective experience of fifty adult participants reporting persistent non-symbolic experience was undertaken using 6-12 hour semi-structured interviews and evaluated using thematic analysis. Additional assessment was performed using psychometric measures, physiological measurement, and experimentation. *Results:* Five core, consistent categories of change were uncovered: sense-of-self, cognition, emotion, perception, and memory. Participants' reports formed clusters in which the types of change in each of these categories were consistent. Multiple clusters were uncovered that formed a range of possible experiences. The variety of these experiences and their underlying categories may inform the debate between constructivist, common core, and participatory theorists.

Introduction

A category of human experience has been reported in the writings of philosophers and mystics since antiquity (Hanson, 1991; Stace, 1960). It goes by many names, including: *nondual awareness, enlightenment, mystical experience, peak experience, transcendental experience, the peace that passeth understanding, unity consciousness, union with God*, and so forth (Levin & Steele, 2005; MacDonald, 2000; Thomas & Cooper, 1980). These types of experiences, referred to collectively in this paper as Persistent Non-Symbolic Experience (PNSE), are often reported in spiritual and religious individuals; however, atheists and agnostics also report them (Newberg, d'Aquili, & Rause, 2001; Newberg & Waldman, 2006, 2009).

Virtually all information about these experiences comes from highly variable self-report data (McGinn, 1991; Stace, 1960). These types of experiences have traditionally been regarded as very difficult to examine scientifically. Given the number and range of research tools available it seems increasingly possible to rigorously examine these types of psychological claims. The present research set out to determine testable claims and collect detailed first person data in a way that side-stepped the religious, cultural, and other contextual ways in which PNSE is often described. Questions were asked that related to: sense of self, cognition, emotion, memory, and perception. The results suggested that similar psychological claims, in distinct groupings, were present across individuals self-reporting PNSE. These distinct groupings each appeared to offer a specific flavor of the experience.

Defining the Phrase: Persistent Non-Symbolic Experience (PNSE)

It was difficult to gain cooperation from this research population. They generally believed they would not and could not be understood scientifically. Finding language that did not

push them away during their initial introduction to the research program was extremely important. Over the course of the research I tested a wide variety of words and phrases to find one that would be widely accepted by them.

The term *non-symbolic* was derived from Cook-Greuter's (2000) research involving ego development and transcendence. While she generally favored the word postsymbolic, she used a term related to non-symbolic in a 2000 paper, in the following context:

Eastern psychologies have often pointed to the nonsymbolically mediated, or immediate ways of knowing as the only kind of knowing that can lead to enlightenment or true insight into human nature. In fact, they consider our addiction to language-mediated, discursive thought as a major hurdle in realizing the true or divine Self, or union with the Ground. (Cook-Greuter, p. 230)

While similar terms exist in the psychology research community, in the field the term 'non-symbolic' was the only one that was widely and readily adopted by the participants.

For most of the project's existence I interchangeably used the words *experience* and *consciousness* with participants. I do not mean to suggest that the definitions of these words are viewed as equivalent. Rather, these terms were the ones most commonly used by participants. Some participants objected strongly to one, while others objected just as strongly to the other. Still others felt neither was appropriate. I have used both with participants and in academic speaking and writing, but am more comfortable with the word *experience*. I feel that what is represented by this research primarily concerns reports of participants' ongoing moment-to-moment way of experiencing the world, and that consciousness may be too broad a term.

The term *persistent* is used to denote a consistent, ongoing experience versus a temporary one. *Permanent* is not used because the research has shown that participants experiencing PNSE

can return to 'normal' consciousness. For the study, persistent is defined having continually experienced one or more forms of non-symbolic experience for at least 1 year.

Method

Participants

This research project eventually grew to have around 1200 participants with PNSE; however, the data reported here comes primarily from the first 50 participants who sat for in-depth interviews. Based on the overall research effort these 50 were felt to be a sufficient sample to represent what has been learned from the larger population. The initial participants were drawn from individuals who met the following criteria: (a) self-reporting to experience a form of PNSE, whether religious, spiritual, or secular; and (b) participation in a community that provided validity to their claims. I also used Stace's (1960) criteria to initially qualify individuals for participation.

The first potential participants were drawn from a broad literature and public documents search. A contact database was compiled and potential participants were sent mail or email about the project with a request for participation. This produced a database of approximately 250 individuals, of which around 100 expressed an interest in some level of participation. Next, private and public libraries that were known for having collections of documents from contemplative groups of various religious traditions were visited, and contact information was collected. A postal mailing was sent to these groups asking for dissemination of information about the research project. This added about another 50 potential participants. Finally, I networked within this pool of initial potential participants to locate additional individuals. I

learned that individuals with PNSE were often in contact with a small group of others who are having similar experiences. Because these were referrals, they were less reluctant than the 'cold call' attempts. This increased the database to a diverse sample of around 500 individuals.

The method for study recruitment from the overall pool of potential participants has remained consistent. An email is sent to the database informing potential participants of an available study and asking for volunteers. Generally 30 to 50 participants respond. First-time participants fill out an information form with basic demographic information as well as data about their religious or spiritual backgrounds, practices, and so forth. Behaviors such as psychedelic drug use are also inquired about. Participants are free to answer only the questions they are comfortable with.

The average age of the 50 participants in this study was 52.13 (SD = 13.26, Median = 53.50, Minimum = 18, Maximum = 93). The approximate average age when non-symbolic experience became persistent was 41.45 (SD = 14.31, Median = 40, Minimum = 4, Maximum = 67). The approximate average number of years that a participant had reported persistent non-symbolic experience by the time of the study was 10.38 (SD = 13.29, Median = 7, Minimum = 1, Maximum = 65). Seventy-two percent of participants resided in the United States, with approximately an equal balance between its major geographic regions. Three percent resided in Canada, with the remainder in Europe (Germany, France, England, Scotland, Ireland, the Netherlands, Switzerland, and Italy) and Australia. Over 90% were native English speakers. Racial diversity was poor; all participants were white. Gender diversity was also poor as 78% of participants were male. I have consistently had difficulty in recruiting higher numbers of females who self-report PNSE despite diverse methodological attempts to do so; including use of a female recruitment staff that included PNSE females.

Of participants reporting their educational level, 66% had at least a college degree. Only one did not graduate from the equivalent of high school. Most participants had been raised with one or more religious tradition, distributed across: Buddhism, Hinduism, Islam, Christianity, and Judaism. A small minority were raised as agnostic or atheist. Over half had practiced more than one religion or spiritual system prior to PNSE. At the time of the study, approximately half of the participants had no current religion, with the remainder distributed among various forms of Buddhism, Hinduism, Islam, Christianity, Judaism, and native religions. The majority of participants practiced a variety of forms of meditation or contemplative prayer anywhere from 52 years to 3 days prior to their experiencing PNSE. Fourteen percent of participants had never meditated or practiced any form of centering or contemplative prayer. Fifty-two percent of participants had used hallucinogenic drugs at some point, but none reported them as the trigger that led to PNSE.

Data Collection

The first phase of data collection began by asking participants to fill out a broad range of well-established personality, developmental, state/trait, and lifestyle measures. That pilot data did not show anything exceptional and has not been published. It did show that individuals in this population experienced higher than average well-being, reduced incidence of depression, and less stress. These are hardly groundbreaking findings given the millennia of well-known claims from individuals within this population.

The project continued to collect data using measures, but the next phase was interview based. I spent most of my time over a two year period driving to and meeting individually with participants. This resulted in 142 in-depth interviews, most of which lasted between 6 and 12

hours. All interviews were recorded, initially using a Sony voice recorder and later on Android-based Motorola cell phones in PCM format. Notes were only rarely taken. If the participant wrote or drew something, the original was kept when possible. A digital photograph was also taken of the artifact. Interviews were conducted at the convenience of participants in a location they specified. The vast majority took place in participants' homes, but other locations included: restaurants, coffee shops, parks, universities, private clubs, and a public library.

Questions were open-ended and centered on five primary domains: sense of self, cognition, emotion, memory, and perception. The interview opened with a request for background information on the person and his or her experiences. Casual conversation followed for 30 to 60 minutes to allow time for sufficient rapport to develop. This time was also used to detect and synchronize with the participant's language patterns and terminology. After this period, questions about cognition were asked. The initial questions were generally about something mentioned in the previous period that was related to cognition. Virtually all participants mentioned a 'quieting' of their mental chatter, so the first question almost always dealt with this. Sample initial questions included: "Did you detect a change in your thoughts before and after the 'transition' (an appropriately language-synchronized term would have been used here) in quantity, strength, or anything else? Were there more or less thoughts or did they seem unchanged, for example? Did they seem about the same or stronger or weaker?" When options like 'more' or 'less' were used their presentation order would be varied from interview to interview.

The next series of questions typically dealt with emotion, followed by perception or memory. After this questions would iterate between the five primary question domains. The same questions would be presented in different ways and used in a variety of combinations to

increase depth. Answers were often repeated back to participants in summarized form asking if the interviewer's understanding was correct. Interviews lasted for 6 to 12 hours, and averaged 8 hours. A small percentage of the interviewees were selected for second and even third and fourth interviews so that data that was collected at different times could be compared. These interviews followed essentially the same structure as the initial one.

During analysis, participants were sometimes contacted to clarify points or simply to perform validity checks on my interpretation and degree of understanding. These types of validity and reliability checks were considered important because of the nature of the material. At the time of the interviews I did not experience PNSE so the nature of the data being presented was foreign to me. Interviews were also shared with other researchers to enable them to provide feedback for validity purposes.

The interviews were fluid exchanges and often included long pauses while the participant thought about or 'waited for' the answer. Despite the fact that a number of participants were used to talking about their experience and answering questions about it, they had not received questions like mine and often had to deeply contemplate their answers. This worked in my favor, as they generally enjoyed the interview process and would recommend it to someone else they knew who met the qualifications for participation.

During the data collection period, participants could not have known in advance other participants' answers to these questions. Although I provided updates on the research at scientific conferences during this period, the answers to the questions asked weren't published or publicly discussed anywhere in order to avoid biasing ongoing interview data. The bulk of interview-

based data collection was completed at the end of 2010. This paper is the first in-depth written account of that data collection effort.

Wherever possible I tried to empirically verify testable portions of the subjective reports from the interviews. Most often this was done by looking for testable claims in participants' responses. For example, occasionally a participant would express that s/he felt free of core cultural programming such as racial or gender bias. For these biases I would use the online experiments from Project Implicit at Harvard University. I also used a variety of physiological monitoring equipment including EEG, SPV, heart and breath rate monitors, and so forth. Many of these 'tests' went on to form pilot studies, with some surviving as ongoing experiments that will be reported on at a future date.

Data Analysis

Structured, semi-structured, and unstructured thematic analysis was performed on the qualitative interview data to refine the understanding of what was being expressed by the participants. This was done on each new interview that came in, and interviews were compared to one another. These comparisons included general contrasts with the entire body of interviews, as well as comparisons with subsets such as other members of the same religious group. As mentioned, supplementary methods such as self-report measures, experiments, and physiological measurement were also incorporated, with appropriate analytic methods used with each.

Results

The primary finding was that PNSE relates to a fundamental change in the perception of sense of self as well as how one's environment is perceived, and that PNSE is not experienced

the same way by everyone. There appeared to be a continuum that may involve several distinct locations along which specific changes are seen in sense of self, cognition, emotion, perception, and memory. Some of these underlying changes are independent of spiritual or religious tradition, while others appear to be highly influenced by individual beliefs. It is possible that the range or degree of progression along the continuum is affected by the practices of a participant's spiritual or religious tradition.

PNSE: A Continuum?

From analyzing the first handful of interviews, it was clear that there were similarities in the experiences being reported. Over time it became evident that each report could be clustered with other reports, and that multiple clusters were occurring. In the early days I often referred to these groupings of similar experience as *buckets* or *locations*, in a conscious effort to avoid more loaded terms like *stages* or *levels*. There was no evidence of the latter during the earliest research period when data collection and analysis began.

As data from the 50 participants were collected it became increasingly clear that these individual collections of reports were not independent of one another. Many participants reported that their experience of PNSE had changed over time. When these changes were examined, data began to emerge that participants across traditions were transitioning from one location to another. As the interviews progressed it became clear that these progressions indicated a specifically ordered *continuum*.

As the participants transitioned into PNSE from normal experience, they seemed able to initially land in any location on the continuum. Each location represented a specific way of experiencing one's self and reality; one that was described similarly by multiple participants

when asked about aspects of their: sense of self, cognition, emotion, perception, and memory. Most participants remained in the same location from that day forward. Others lost their experience of PNSE or transitioned to one or more different locations on the continuum. This movement could be either 'forward' or 'backward' although these are arbitrary labels and are not meant to connote any sense of value.

As the overall picture was examined what emerged was a continuum that seemed to progress from 'normal' waking consciousness toward a distant location where participants reported no individualized sense of self, no self-related thoughts, no emotion, and no apparent sense of agency or ability to make a choice. Locations prior to this seemed to involve consistent changes toward this direction. The existence of this continuum was only realized during the later stages of the research. Accordingly, during the earliest phases I did not ask sufficient questions to quantify the percentage of those who remained in one location, the number who did not, the number who moved both forward and backward, degree of fluidity, and so forth.

For those participants who did not remain in one spot on the continuum, their spiritual practices and beliefs, and religious tradition seemed to influence their progression on the continuum. The Christian tradition's version of the continuum, especially pre-Bernadette Roberts (1993), seemed to end at approximately the two-thirds point. Some Buddhist traditions went further, while other's seemed to stop in about the same range as Christianity. The techniques participants used and beliefs that they absorbed seemed to determine which portions of the continuum they experienced. Some individuals who experienced multiple locations on the continuum even seemed able to specifically select the location they wanted to experience. Broadly speaking, there seemed to be an orderly progression in the experiences described.

The Core Elements

As I sought to increasingly identify the most consistent PNSE elements that were being reported by participants, the research became primarily focused on changes in: sense of self, cognition, emotion, memory and perception. These elements were used in an effort to get below individual beliefs, cultural differences, and so forth. It proved to be a highly effective strategy that produced clear and consistent answers.

Sense of self

Perhaps the most universal change in what PNSE participants reported related to their sense of self. They experienced a fundamental change from a highly individualized sense of self, which is common among the ‘normal’ population, to something else. How that ‘something else’ was reported often related to their religious or spiritual tradition(s), or lack thereof. For example, Buddhists often referred to a sense of spaciousness while Christians frequently spoke of experiencing a union with God, Jesus, or the Holy Spirit depending on their sect. However, each experienced a transformation into a sense of self that seemed ‘larger’ and less individuated than the one that was experienced previously. Often participants talked about feeling that they extended beyond their body, sometimes very far beyond it. One way to conceptualize this for purposes of discussion is as a change from *localized* to *non-localized* sense of self.

This change was dramatic and most participants noticed it immediately, even if initially they could not pinpoint exactly what had occurred. Sense of self changed immediately in approximately 70% of participants. In the other 30% it unfolded gradually, with the unfolding period reported as varying from a few days to four months. Those who were not involved in a religious or spiritual tradition that contextualized the experience often felt that they might have

acquired a mental disorder. This analysis was not based on emotional or mental distress. It was typically arrived at rationally because the way they were experiencing reality was suddenly remarkably different than they had previously, and as far as they could tell different from everyone they knew. Many of these participants sought professional mental health care, which no participant viewed as having been beneficial. Clinicians often told them their descriptions showed similarities to depersonalization and derealization, except for the positive nature of the experience.

There were nuances within how sense of self was experienced at different locations along the continuum. In the earliest locations, the sense of self felt expanded, and often seemed more connected to everything. In the farthest locations on the continuum, an even more pronounced change occurred in sense of self; all aspects of having an individualized sense of self had vanished for these participants. Prior to this location some aspects of an individualized sense of self remained, and participants could occasionally be drawn into them. In the study, nine participants experienced this degree of change. There were two participants whose initial experience of PNSE was of these locations on the continuum; the other seven participants transitioned into these locations later. All of these transitions brought a substantial change in world view according to the participant's religious or spiritual tradition. Transitions to the farthest locations on the continuum were immediate, meaning that they occurred instantaneously and often shattered the sense of what was 'true' much in the same way that the initial progression into PNSE did. Note that later in this paper *Location 4* collectively refers to this part of the continuum. Although referred to there as one singular location for ease of comparison with other major sections of the continuum, in my day-to-day research I recognize more levels to provide greater data granularity.

Participants reported that PNSE produced a deep sense of certainty that affected their world-view and became deeper and more established as a stable foundation for them over time. Participants who experienced a shift from earlier locations on the continuum to these later locations reported that the former certainties and their associated experiences fell away. For example, Christian participants who underwent this transition lost their sense of Christ, God, and/or the Holy Spirit and experienced a profound change in the certainty they had previously derived from that ongoing experience. It is important to note that a new and deeper level of certainty often accompanied this shift, though significantly different than what existed previously.

This was also true for participants who were spiritual but did not come from a specific tradition. Often these participants, in the earlier locations of the continuum, reported their own kind of unitive or highly connective experience, though it did not generally involve a personalized deity. Nonetheless, like Christians and others with specific traditions, these participants often reported feeling a sense of an all pervasive energy, which was most often referred to as 'consciousness.' They generally reported feeling this consciousness in everything, including inert matter, yet after the transition to the furthest locations this sense was no longer with them. What remained left them feeling even more certain about the truth of their experience.

Despite the vast and potentially unsettling shifts in sense of self, when asked, almost all participants state that they would not prefer to go back to an earlier experience. They tend to see the current locations as the ideal PNSE, even if they had argued differently in other locations and experiences. This was sometimes also the case when participants went forward on the continuum and then back to earlier locations. These participants were able to contextualize how they would

have reported their experience of a later or earlier location as superior when in that location, and explain why their current location was nonetheless preferable.

Cognition

Another consistent report is a shift in the nature and quantity of thoughts. Virtually all of the participants discussed this as one of the first things they noticed upon entering PNSE. The nature and degree of the change related to a participant's location on the continuum. On the early part of the continuum, nearly all participants reported a significant reduction in, or even complete absence of, thoughts. Around 5% reported that their thoughts actually increased. Those who reported thoughts, including increased thoughts, stated that they were far less influenced by them. Participants reported that for the most part thoughts just came and went, and were generally either devoid of or contained greatly reduced emotional content.

Almost immediately it became clear that participants were not referring to the disappearance of all thoughts. They remained fully able to use thought for problem solving and living what appeared outwardly to be a 'normal' life. The reduction seemed limited to self-related thoughts. Nevertheless, participants were experiencing a reduction in quantity of thoughts that was so significant that when they were asked to quantify the reduction, those who could answered within the 80-95% range. This high percentage may suggest why someone would say all thought had fallen away.

There do not appear to be negative cognitive consequences to this reduction in thought. When asked, none said they wanted their self-referential thoughts to return to previous levels or to have the emotional charge returned to them. Participants generally reported that their problem solving abilities, mental capacity, and mental capability in general had increased because it was

not being crowded out or influenced by the missing thoughts. They would often express the notion that thinking was now a much more finely tuned tool that had taken its appropriate place within their psychological architecture.

The amount of self-related thoughts as well as the percentage with emotional content continued to decrease as participants moved along the continuum. During the earlier parts of the continuum participants could still be 'grabbed' by thoughts and have their mind pulled into thought sequences similar to what other research has shown in mind wandering (Smallwood & Schooler, 2006). They reported noticing this process occurring relatively rapidly and stated that this noticing led back to the experience of reduced thoughts. This 'grabbing' process also reduced as participants moved along the continuum. At the farthest extreme, participants reported no self-referential thoughts at all.

Emotion

Similar to thoughts, participants reported a significant reduction in both the range and overall experience of emotion, which differed depending upon where they were on the continuum. Those at the early end of the continuum reported a range of positive and negative emotions. Participants reported being much less subject to being 'grabbed' by emotions as they arose. Emotional duration was reported as being in the same range as durations cited relating to the underlying physiological processes that create the sensation of emotion in the body (Pert, 1999). It was as if emotional triggers were arising, but a key aspect of their psychological makeup that had formerly extended these emotional experiences was missing. On the far end, participants reported no experience of emotion.

As participants moved from the early locations to the further ones, positive emotions remained and negative emotions occurred much less frequently. Just before the farthest locations where they stopped reporting the experience of emotion, participants reported their emotional experiences as highly positive. They described experiencing a single emotion that felt like a combination of intense, impersonal compassion, joy, and love. The transition to this location was often gradual with only a handful of participants reporting this as their initial PNSE location, but the transition that followed it to a location of no emotion was an immediate and highly noticeable change.

More generally, participants reported a state of ongoing and deep inner peace. Often they gestured to their central upper chest, solar plexus, and/or central lower abdomen area when discussing it. During the early locations, this feeling could be obscured. This usually occurred through external situations rather than internal thought processes. Often when dealing with deep trauma or other deep emotional triggers, such as intense family situations, participants in earlier locations described their feeling of peace being 'pushed down.' They frequently accompanied the description with a gesture of their hands pushing down from their solar plexus area to their lower abdomen.

Some participants left the situation that was causing this suppressed inner peace. This often included getting divorced because having family around obscured the deep peace that was otherwise present. Others chose to remain in the suppressing situation and stated that over a period of time the reaction extinguished. Reported time frames for extinguishing these types of deeper triggers ranged from two weeks to seven years. The reports of extinguishing that extended beyond a few months often dealt with uncovering multiple layers of triggers around a central core issue. The reaction to each of the layers would extinguish in two weeks to three

months. However, some participants reported triggers that had not dissipated even though it had been many years. Surprisingly, these included people on the far end of the continuum though their experience of these triggers was of a faint and vague sensation in their body.

The sample involved four couples where both partners experienced PNSE. One of those couples reported that they found these triggers helpful in deepening their early PNSE experiences. Years later when some of the core ones had not dissolved the couple ultimately decided to divorce because of some of these remaining triggers. I also observed two cases where a participant remained in a situation for years that continued to produce this 'pushing down' experience to such a great extent that it produced periods when the person no longer reported PNSE. When out of the situation, PNSE would return within two to four weeks for these individuals, but then it would often be suppressed again when the participants were re-immersed in the suppressing situation for the longer term.

Perception

The PNSE changes that occur with perception are tied closely to cognition and emotion. As with these other categories a continuum of changes exists. The two primary changes relate to the degree of focus on the present moment versus the past or future, and how external events trigger internal experiences.

All participants reported a significant increase in their experience of and focus on what was happening in the present moment along with a dramatic reduction in thoughts about the past and future. The experience of the present moment accompanied increased simultaneous multi-sensory experience. Participants reported experiencing the ongoing streams of information from

multiple senses at the same time, such as hearing and smelling, and having these be integrated into a much deeper experience of the present moment.

On the early end of the continuum, participants had a greater experience of the present moment but they were able to be pulled into thoughts involving the future and past more than participants at later locations of the continuum. The further along the continuum participants went, the more reliably their experiences seemed to be rooted in the present moment. Toward the farthest locations participants reported a near total immersion in the present moment. In the locations just before the farthest ones the study uncovered, this included perceptual effects such as visual perception switching from 3D to 2D and a feeling of being stationary in the world (even when moving, such as walking) while having the world move through them.

Another distinct perceptual change that was reported by all participants related to how external events triggered internal reactions and emotional processes. During interviews some questions related to external events that, prior to PNSE, were upsetting. A consistent example was that many male participants stated that it used to upset them when they were cut off dangerously in traffic. When asked how they reacted after the onset of PNSE, their answers depended upon where they were on the continuum. On the early end, they often still had considerably strong reactions to things that deeply triggered them. In the traffic example they reported that it would not be uncommon for them to make an insulting gesture at the offending driver and accompany it with some swear words. For these participants, the primary difference was in what occurred immediately thereafter. With PNSE, in a matter of seconds (reported as 2 to 90 depending on the severity of the incident involved, and usually on the extreme low end of the range if not life-threatening) their emotional state would return to a baseline of high well-being, and they were no longer reactive or bothered by the incident. They stated that prior to

PNSE they would have remained upset much longer in similar situations. Commenting on the difference, they typically speculated that the lack of an individualized sense of self seemed to affect whether or not, and how long, they held onto the perceived injuries from these events.

Participants experiencing the far end of the continuum provided further insight on this phenomenon. An example occurred during a participant interview on a major college campus. It was one of the first warm days of the season and quite a few women on campus were lying out on the lawns in swimsuits. Knowing that the participant was heterosexual, I asked about his experience of all of these attractive young women. The participant responded that occasionally he would notice his eyes orient to one of them, but nothing further would arise. When asked to speculate on why the orientation had occurred, he stated that he assumed it was a low-level hardcoded reproductive response.

Participants in the later part of the middle range of the PNSE continuum often reported seeing the unfolding layers of these perceptual processes in detail. They reported being able to begin to detect the difference between the orientation response (mentioned above) and the physical, cognitive, and emotional processes that arose after it. They reported reaching a point where some events were reacted to by one or more of these layers while others were not. This was in contrast to participants on the early end of the continuum who perceived all of these layers as one during an event, or at least as a greatly reduced number of discrete processes.

The ability of these perceptual processes to draw participants in to deeper action or reaction also varied depending upon continuum location. As they moved deeper into the continuum, participants were increasingly able to control their reactivity to external events. As this progression continued this active control faded and became increasingly less necessary.

Participants reported simply having fewer and fewer internal experiences arise in reaction to external events, similar to the 'orientating-only' response mentioned previously.

Memory

All participants reported that they placed less importance on their personal memories, and their personal history in general. Both encoding and recall seemed to be affected depending upon where participants were located on the continuum. On the early end, while participants placed much less importance on their personal memories, changes in encoding were generally not reported. However, they stated that memories seemed to arise much less than previously. The number of memories that seemed to spontaneously arise were increasingly reduced the further a participant was along the continuum, similar to the reduction that occurred in self-related thought. Despite a sense among many participants that they were having memory issues, recall seemed full and accurate when participants were asked questions that related to their past.

As participants neared the further reaches of the continuum, they frequently reported significant difficulty with recalling memories that related to their life history. They did not feel this way about facts, but rather about the details of the biographical moments surrounding the learning of those facts. They also reported that encoding for these types of memories seemed greatly reduced. Although this was their perception it did not appear to be the case when talking to them. They were typically rich sources of personal history information and their degree of recall seemed indistinguishable from participants who were in earlier locations on the continuum.

These participants also felt that their short and mid-term memory was significantly affected. While I witnessed instances of participants being unable to remember details of

conversations that had occurred only moments earlier, for the most part even participants who felt that they had this type of memory deficit seemed able to accurately recall recent parts of our conversation, things that happened earlier in the day, and so forth. It is possible that this historical information simply does not arise on its own for individuals at the far end of the continuum and thus does not seem to be as present. However when asked specific questions, the information does arise and appears to be present.

There was a noticeable exception that seemed to be a genuine deficit. As they neared and entered the farther reaches of the continuum, participants routinely reported that they were increasingly unable to remember things such as scheduled appointments, while still being able to remember events that were part of a routine. For example, they might consistently remember to pick their child up at school each day, but forget other types of appointments such as doctor visits. Often they had adapted their routines to adjust for this change. Many would immediately write down scheduled events, items they needed to get at the store, and so forth on prominently displayed lists. When visiting their homes I noticed that these lists could be found on: televisions, computer monitors, near toilets, on and next to doors, and so forth. It was clear that the lists were being placed in locations that the participants would look with at least some degree of regularity. Participants consistently stated that they would prefer to remain in PNSE even if going back to ‘normal’ experience meant that they would no longer have this type of deficit.

Additional Findings

In addition to the previous points on sense of self, cognition, emotion, memory and perception, a range of additional findings emerged from the research. These often involved topics that have been either repeatedly expressed or hotly debated in the religious, spiritual, and

other circles that have an interest in PNSE experiences. This section explores some of these findings.

Truth and Degree of Sensed Agency

On the far end of the continuum, participants reported no sense of agency. They reported that they did not feel they could take any action of their own, nor make any decisions. Reality was perceived as just unfolding, with ‘doing’ and ‘deciding’ simply happening. Nevertheless, many of these participants were functioning in a range of demanding environments and performing well. One, for example, was a doctoral level student at a major university. Another was a young college professor who was building a strong career. Still another was a seasoned public and private sector executive who served as a high-level consultant and on various institutional-level boards.

A decreased sense of agency was only rarely perceived by participants on the early end of the continuum. These participants did report an increased noetic sense that everything is perfect exactly as it is and could not be any other way. They often felt that they had been given deep truths and were unwilling to have these beliefs questioned. At the mid-point of the continuum, these feelings remained and participants often reported that they could ‘sense’ there was a correct choice or path in every situation. Many were actively paying attention to and selecting the choice that felt correct regardless of whether it seemed to make logical sense or would be considered the socially acceptable thing to do.

Dogmatism: I’m Enlightened and You’re Not

PNSE was often accompanied by a tremendous sense of certainty that participants were experiencing a 'deeper' or 'more true' reality. As time passed, this often increased in strength. This sense of internally experienced truth often led to a form of dogmatism, especially among participants who had only experienced one location on the continuum. Due to the certainty they felt, these participants had difficulty accepting that individuals who described their experiences differently were actually experiencing PNSE. Participants with dogmatic tendencies felt like theirs was the correct and true version of the experience. When asked to contrast their experience with the data collected from one or more other participants, these participants would often definitively state that I was obviously having difficulty understanding what was and was not a valid PNSE experience.

On the other hand, those who were knowledgeable of one or more spiritual system often had specific examples of where my analysis was failing. For example, when I asked one well known Theravada Buddhist teacher about a specific participant who had no emotions or sense of agency (on the latter end of the continuum), he strongly argued that the participant was 'stuck' in a certain Jhana, which was considered different from PNSE in his tradition. At the time, he was a well-known 'Jhana Master' who was able to enter these various states at will. His certainty was so strong that he actually entered into the Jhana he was referring to so that I could interview him in that state of consciousness and compare his responses to the other participant.

I later introduced this Buddhist teacher to the other participant, and they formed a friendly relationship. Over the course of the research I often networked subjects in this way and the exchanges between them substantially increased my understanding of what each was sharing. In this case, the Buddhist teacher also had one of his most advanced students (also a participant in the study) shift on the continuum from a location that the teacher considered Enlightened to

this location that he thought of as being stuck in a Jhana. The reports from this student as well as the other participant he had become friends with caused him to reconsider his position and accept the possibility that the location of no emotion or agency could also be considered a valid form of PNSE.

Research showed that the initial PNSE experience brought with it such a deep sense of truth and certainty that it was hard for participants to imagine it as anything but the 'correct' version of the experience. However, when significant changes in the experience occurred and the new experience felt as much or more certain and true than the previous experience, it led most participants to accept that there may be other shifts that can occur that also bring tremendous, and perhaps even greater, certainty with them. This allowed them to be more accepting not only of their own experiences but also of what others described to them.

Consistency of Personality

Despite an overwhelming change in how it felt to experience both themselves and the world after the onset of PNSE, the outward appearance of the participants changed very little. Generally speaking they retained their previous mannerisms, hobbies, political ideology, food and clothing preferences, and so forth. If someone were an environmentalist prior to PNSE, typically they remained so after it. If they weren't, they still are not.

Many participants discussed the thought, just after their transition to PNSE, that they would have to go to work and explain the difference in themselves to co-workers. They went on to describe a puzzled drive home after a full day of work when no one seemed to notice anything different about them. Quite a few chose to never discuss the change that had occurred in them with their families and friends and stated that no one seemed to notice much of a difference. In

short, although they had experienced radical internal transformation, externally people didn't seem to take much notice of it, if any. Many of the participants did not have friends and family who were interested in PNSE. Participants who tried to discuss the change they were experiencing with those closest to them often encountered immense worry and concern. The most common reaction was for the participant to never bring it up again.

There seemed to be a clear distinction between a PNSE participant's personality and their underlying sense of having an individualized sense of self. When the latter is absent, the former seems to be able to continue to function relatively unabated. There are exceptions. For example, the change in well-being in participants who were depressed prior to the onset of PNSE was obviously spotted by those around them. Generally, however, the external changes were not significant enough to be detected, even by those closest to the participant.

Persistent but Not Permanent: The Loss of PNSE

In the course of reaching out to PNSE individuals, the research project attracted 17 individuals who claimed that they formerly experienced PNSE. The range of persistency reported was from 1 year to 23 years. I chose the one year mark to denote minimum persistence. I had many more individuals speak to me who experienced it for a week, month, few months, and so forth. These individuals generally spoke to me because they were hoping I could help them regain PNSE.

Three of these individuals reported loss of persistency due to brain injury or illness. Nine of the individuals reported losing PNSE during an extremely stressful time in their lives. The other five did not have any specific event or occurrence that explained it. Full interviews were not conducted with these individuals to ascertain where they were on the continuum at the time

of PNSE loss; however from our conversations it appeared that they had been in a broad range of possible locations. This is a potentially rich area for future research, but one that I chose to largely exclude from the inquiry so that I could maintain a focus on individuals with PNSE.

Virtually all of the participants initially expressed the belief that 'true' PNSE could never be lost. They stated that normal experience could obscure it, but that PNSE would always be present as the foundation of experience. Many of them believed this was the case for everyone, not just themselves. However, participants who personally knew someone who had lost PNSE were more likely to accept that it could happen to them, as were participants who had read or heard of accounts of this occurring. Participants whose personal experience of PNSE had not changed significantly on the continuum over time were the most likely to express the belief that PNSE was permanent and unshakable. When asked about accounts of those who had lost it, they would often state that individuals sharing those experiences were probably never fully experiencing PNSE.

Stress and PNSE

As I mentioned previously, some individuals reported that stressful life events caused them to lose their PNSE. The first hint I had of this was a woman who approached one of my associate researchers after I spoke at an event. She lost her PNSE of 5 years at a time when her father had just died, her son was ill and unlikely to survive, and her husband of many years had left her. When asked about her internal state during this period, she stated that it was her usual equanimity. After several more of these types of reports I began asking about life circumstances as I kept in touch with participants, in part to look for stressful situations.

There were three times when I felt that a participant's stress level might be high enough to warrant a follow-up visit. My very first participant was one of these individuals. I had known this participant for over 20 years, since long before his PNSE began. He was a healthy, retired medical doctor in his 60's. When I first interviewed him, his location on the continuum was in the latter middle part of the continuum, just before the location where only fully positive emotions remain. At this time he had not changed locations since his initial transition into PNSE.

Over the course of a week, his father died followed very rapidly by his sister. He was also going through a significant issue with one of his children. Over dinner I asked him about his internal state, which he reported as deeply peaceful and positive despite everything that was happening. Having known that the participant was bringing his longtime girlfriend, I'd taken an associate researcher with me to the meeting to independently collect the observations from her. My fellow researcher isolated the participant's girlfriend at the bar and interviewed her about any signs of stress that the participant might be exhibiting. I casually asked the same questions to the participant as we continued our dinner conversation. Their answers couldn't have been more different. While the participant reported no stress, his partner had been observing many telltale signs: he wasn't sleeping well, his appetite was off, his mood was noticeably different, his muscles were much tenser than normal, his sex drive was reduced, his health was suffering, and so forth.

The same was observed in a total of three participants and I went on to conduct other experiments into this. The overall suggestion from the data was a disconnect between the internal subjective experience in these participants and other parts of their psychology and physiology. While this was especially pronounced during times of high stress it seemed more broadly measurable. Two examples illustrate aspects of this.

It was not uncommon for participants to state that they had gained increased bodily awareness upon their transition into PNSE. I arranged and observed private yoga sessions with a series of participants as part of a larger inquiry into their bodily awareness. During these sessions it became clear that participants believed they were far more aware of their body than they actually were. For example, the instructor would often put her hand on part of the body asking the participant to relax the tense muscles there, only to have the participant insist that s/he was totally relaxed in that area and did not feel any muscle tension.

During some interviews participants expressed that they no longer felt it was possible for them to be racist or sexist. I asked these participants to take Harvard University's Project Implicit tests online. All of these participants were white males and each showed a degree of sexism and/or racism, including participants who were in the later no emotion and agency locations on the continuum. Project Implicit uses physiology to test these responses.

Rejecting Non-Symbolic Experience

Not everyone welcomed non-symbolic experience (NSE). During the research I heard from 3 participants, two of whom I conducted a full interview with, who rejected NSE and forced the experience out. This took from 2 weeks to 8 months depending upon the individual. All of these individuals reported experiences that matched later locations on the continuum, which involve no emotion. Although not all of these individuals did not experience NSE for over a year, and thus do not meet my definition of PNSE, their data is highly instructive and relevant.

Two of the individuals rejected the experience because of the nature of the experience itself. One reported that he had read a book about PNSE the night before and woke up the next day experiencing NSE. He stated that he felt that he had lost his humanity, which can be a

common way of expressing the no emotion, no agency experience among individuals with no spiritual or psychological frame of reference for it. He described looking across the table at his young daughter and how it just didn't feel right to have lost the intense parental love that he'd previously experienced for her. It took him three months to fully leave NSE, and he described the time period since as the most meaningful and appreciative of his life. He returned fully to an individualized sense of self.

Another of these individuals did not fully reject the experience on her own. She had a spiritual teacher who did not understand the far-end experience and whose beliefs related to the importance of love and compassion. This person was advised to actively reject the state by this teacher. It took two weeks. This individual did not fully reject PNSE, only the far end of it. She returned from the no emotion, no sense of agency location on the continuum but stopped short of completely exiting the earlier PNSE location that she had existed at for over 10 years.

These individuals all reported using a similar technique to exit the experience. They stated that even though they were not experiencing emotion, very deep emotional/psychological triggers could still produce some very weak, 'ghost-like' sensations. The term 'ghost-like' was used by one participant and agreed upon by the others. Others who transitioned from the early part of the continuum to this far location described something similar, stating that as their experience of the furthest parts of the continuum deepened, these 'ghost like' pieces of former emotions vanished. Over time the individuals who wished to reject the latter locations of NSE learned that if they put themselves in situations that produced these sensations they could focus on and strengthen them. Eventually these reconstructed into emotions that could more easily be focused on, and finally enabled them to exit the experience.

Summary of the Key Traits per Continuum Location

A great deal remains to be done in detailing and understanding the locations on the continuum. This is a rich area for future research. At present, models have been publically presented with as many as eight locations, but even these can be sliced much finer. For ease of discussion, in this paper I group the data into 4 relatively broad categories. This is sufficient to see the types of changes that occur as well as the progression they may indicate. I refer to them simply as Locations 1 through 4.

Location 1

Location 1 participants experienced a dramatic reduction in or seeming loss of an individualized sense of self. Their minds seemed much quieter because of a reduction in the quantity and/or emotional strength of self-related thoughts, but there were still some emotionally charged thoughts that could pull them back into more active thought streams. They experienced a range of positive and negative emotions, but these emotions were much more transient and did not have the power over them that they once did. Conditioning could still trigger thought streams and stronger emotions, but even these passed in a matter of seconds.

The overall change in their thoughts and emotions left them with a deep sense of peace and beingness. This beingness felt more real than anything previously experienced and made the external world and their former experience of an individualized sense of self seem less real by comparison. This deep peace could be suppressed by external psychological triggers, but would recover once the stimulus was removed. Their sense of self seemed larger and to expand beyond the physical body. There was a new sense of connectedness between what was formerly perceived as the internal and external worlds. For religious participants there was also an

increased sense of connectedness to divinity. Participants reported a very high level of well-being and a noetic sense that everything was unfolding exactly as it should.

Location 2

Location 1 experiences deepened at Location 2. For example, Location 2 participants experienced an increased loss of self-related thoughts as well as a continued reduction in the ability of the thoughts that did remain to draw them in, when compared to Location 1. As they progressed through this location the range of emotions they experienced became increasingly positive. Participants in Location 2 were more likely to feel that there was a correct decision or path to take when presented with choices. Participants who progressed to this location from the previous one reported an increased sense of well-being.

Location 3

Location 3 is the closest to representing just one location and not a range of similar locations on the continuum. By Location 2, participants had shed their negative emotions, and now experienced one dominant emotion. This single emotion felt like a mixture of various positive emotions such as impersonal/universal compassion, joy, and love. Parts of negative emotions, which one participant called proto-emotions, were sometimes still felt but did not form into full emotions. The single remaining positive emotion was a constant experience and companion for Location 3 participants. The remaining traces of self-referential thought had continued to fall away.

In Location 3, participants' experience of inner peace and beingness continued to deepen. So too had their feelings of connectedness and union/unity. If they were Christian, they felt

strongly merged with Jesus, the Holy Spirit, or God depending upon their sect. If they were 'spiritual' they may have felt this same sense of connectedness mapped onto the experience of an all-pervasive consciousness. These types of experience are often viewed as the pinnacle spiritual experience in some traditions, such as Christianity, and a desired stopping ground for others including some forms of Buddhism. Participants at Location 3 often saw the world as unable to be any other way than it already is in the moment. While all participants expressed this to some degree it seemed to have grown very deep roots by this point. These participants generally did not place importance on choosing the correct decision or path like Location 2 participants. Participants who progressed to this point from the previous location reported an increased sense of well-being.

Location 4 and Beyond

Another major transition occurred at Location 4, which includes both the transitional location and those beyond it where the experience it ushers in continues to deepen. All remaining vestiges of self-related thoughts are gone by this point, as are experiences of emotion. Feelings of deep interconnectedness and union with God, an all pervasive consciousness, and so forth also disappeared. These participants reported having no sense of agency or any ability to make a decision. It felt as if life was simply unfolding and they were watching the process happen. Severe memory deficits were common in these participants, including the inability to recall scheduled events that were not regular and ongoing. Participants who progressed to this location from one or more previous ones reported the highest level of well-being. Often this amazed them as they did not imagine anything could have been better than Location 3.

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References

- Cook-Greuter, S. R. (2000). Mature ego development: Gateway to ego transcendence? *Journal of Adult Development*, 7(4), 227-240.
- Katz, S. (1978). *Mysticism and philosophical analysis*. New York: Oxford University Press.
- Katz, S. (1992). *Mysticism and language*. New York: Oxford University Press.
- Ferrer, J. (2000). The perennial philosophy revisited. *The Journal of Transpersonal Psychology*, 32(1), 7-30.
- Ferrer, J. (2002). *Revisioning transpersonal theory: A participatory vision of human spirituality*. Albany: State University of New York.
- Hanson, B. K. (1991). Mystical realism: Epistemology and nondual awareness. *Dissertation Abstracts International*, 52(6), 2177B. (UMI No. 9135373)
- Hood, R. W., Jr. (1995). The facilitation of religious experience. In R. W. Hood, Jr. (Ed.), *Handbook of religious experience* (pp. 568-597). Birmingham, AL: Religious Education Press.
- Hood, R. W., Jr. (2003). Conceptual and empirical consequences of the unity thesis. In J. Belzen (Ed.), *Mysticism: Some psychological considerations* (pp. 17-54). Amsterdam, The Netherlands: Rodopi.
- Levin, J., & Steele, L. (2005). The transcendent experience: Conceptual, theoretical, and epidemiologic perspectives. *EXPLORE*, 1(2), 89-101.
- MacDonald, D. A. (2000). Spirituality: Description, measurement, and relation to the five factor model of personality. *Journal of Personality*, 68, 153-196.
- Martin, J. A. (2010). *Examining claims of self reported persistent non-symbolic experiences in adults using the M Scale and WUSCT* (Unpublished doctoral Dissertation). California Institute of Integral Studies, San Francisco, CA.
- McCormick, L. A. (2010). *The personal self, no-self, Self continuum: An intuitive inquiry and grounded theory study of the experience of no-self as integrated stages of consciousness toward enlightenment*. Proquest: UMI No. 3396100.
- McGinn, C. (1991). *The problem of consciousness*. Oxford: Blackwell Publishers.
- Neuberg, A., D'Aquill, E., & Rause, V. (2001). *Why God won't go away: Brain science and the biology of belief*. New York: Ballantine Books.
- Newberg, A. B., & Waldman, M. R. (2006). *Why we believe what we believe: Uncovering our biological need for meaning, spirituality, and truth*. New York: Free Press.

Pert, C. B. (1999). *Molecules of emotion: The science behind mind-body medicine*. New York: Touchstone.

Roberts, B. (1993). *The experience of no-self: A contemplative journey*. Albany, New York: State University of New York.

Smallwood, J. & Schooler, J.W. (2006). The Restless Mind. *Psychological Bulletin*, 132(6), 946-958.

Stace, W. (1960). *Mysticism and philosophy*. Philadelphia: Lippincott.

Thomas, L. E., & Cooper, P. E. (1980). Incidence and psychological correlates of intense spiritual experiences. *Journal of Transpersonal Psychology*, 12, 75-85.