

A SURVEY OF RECALLED CHILDHOOD SPIRITUAL AND NON-ORDINARY EXPERIENCES: AGE, RATE AND PSYCHOLOGICAL FACTORS ASSOCIATED WITH THEIR OCCURRENCE

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ABSTRACT

There has been increasing evidence that children have direct spiritual experiences. However, there has been no research as to whether this describes a few prodigious children or is a more widespread phenomenon. The current study attempts to address this question through a statistical survey based on phenomenological descriptions of a variety of spiritual experiences with 453 adults. The results suggest that the recollections of childhood spiritual moments are quite common and also affirms previous research that found higher levels of Personality Trait Absorption, self-perceived depression and anxiety associated with greater rates of life-time spiritual experiencing. Combined with previous case studies of children's spiritual experiences, this study challenges conventional views of development related to children's spiritual life that has far reaching implications for both theory and practice. This study points the way for wider scale research.

INTRODUCTION

There is increasing evidence that children have spiritual experiences (Piekowski, 2002). They appear to have moments of unity, evince surprising expressions of compassion and connection, manifest access to unusual wisdom, and are found wrestling with profound metaphysical questions about such topics as life and death (Hart, 2003). These may be powerfully formative for a child's worldview and life course, perhaps providing among the most fundamental of human and spiritual motivation. The evidence of these experiences revealed in earlier research and in this current study challenges conventional views of childhood development.

Traditionally, psychology and education have been dismissive of the idea that children have genuine spiritual experiences (e.g., Goldman, 1964; Wilber, 1996). Children are seen to be developmentally immature, without sufficient intellectual growth to manifest anything that might be understood as meaningfully reflective and/or spiritual. For example, Wilber (1996) describes children's mode of thinking and being as merely: "instinctual, impulsive, libidinous, id-ish, animal, apelike" (p. 2). Psychological assumptions about children's capacities remain guided by Jean Piaget's (1968) "stage" model of cognitive development, in which children are viewed as largely incapable of meaningful reflection. Tied to this understanding of cognition, there is also a prevalent presupposition that genuine spirituality requires adult abstract thinking and language ability as exhibited in the higher stages of adolescence and adulthood (see e.g., Dillon, 2000). Most researchers have, therefore, concluded that children, especially pre-adolescents, do not, and cannot, have a spiritual life.

In addition, most research on childhood spirituality has typically equated spirituality with "God talk"—how children think and talk about God or other religious concepts (e.g., Heller, 1986; Tamminen,

1991; Coles, 1992). Through the imposition of such cognitive and religious standards, children's spiritual expressions go unrecognized, dismissed or are interpreted as merely immature religiosity. However, children's spirituality may exist apart from adult rational and linguistic conceptions and beyond religious knowledge. As Gordon Allport (1955) suggested, "the religion of childhood may be of a very special order" (p. 101).

Rather than focusing on religious knowledge, adherence, or thinking and language capacity, William James (1936) understood spirituality as a more direct and personal experience of divinity—what he referred to as *personal religion* as opposed to *institutional religion*. This may emerge as a sense of interconnection with the cosmos, a clear knowing, a sense of energy or life force, recognition of the divine, perhaps in all things, and so forth. Although the terms 'spiritual' and 'spirituality' are commonly interchanged with words such as 'religion' and 'faith', this paper takes 'spiritual' and 'spirituality' as ways of being-in-the-world, epistemic styles and types of immediate, ontologically shifting awareness or perception that may or may not be connected to religious faith or belief in deity (Hart, Nelson and Puhakka, 2000).

There has been a long and rich tradition of documenting these spiritual experiences in adults. As far back as the late Nineteenth Century, attempts were being made to survey and classify the occurrence of spiritual and mystical experiences. Starbuck's survey of conversion (1899), which led to James' classic study, *The Varieties of Religious Experience* (1936), was followed later on by Bucke's landmark *Cosmic Consciousness* (1923), and in more recent times by Laski's (1961) informal inquiry into ecstatic states and Hardy's (1979) media survey which provided an overwhelming quantity of anecdotal material. Although these more informal studies have always revealed a surprisingly widespread occurrence of these experiences, the idea of the rarity and exclusiveness of these encounters has been undermined by the more rigorous surveys of Back and Bourque (1970), Thomas and Cooper (1978), Hay and Morisy and Hay in Great Britain (1978, 1979a), Macleod-Morgan (1985) in Australia and Haraldsson (1985) in Greenland. These surveys have revealed that a consistent 20-60% of the population claim to have had at least one encounter of this type in a life time (Nelson, 1989).

Not only do adults have powerful spiritual experiences, but children have them as well. These conclusions are drawn from hundreds of case studies and interviews (e.g., Armstrong, 1984; Hart, 2003; Hay and Nye, 1998; Hoffman, 1992, Piechowski, 2002; Robinson, 1983; Robinson and Jackson, 1987). In addition to contemporary accounts, surprisingly, many of the great mystics and sages throughout history describe their spiritual life as beginning in childhood. Native American Elder Black Elk had his most profound visions at 5 and 9 (Neihardt, 1972), the 19th century Indian spiritual leader

Ramakrishna had a direct encounter with divinity at 6 (Nikhilananda, 1970) and it was the Jesuit sage Teilhard de Chardin who said, "I was certainly no more than six or seven when I began to feel myself drawn to Matter—or more exactly by something that 'shone' in the heart of matter" (Cobb, 1967, p. 90).

While there remains debate on what these events ultimately mean for human development, it is increasingly apparent that at least some children have powerful spiritual experiences and capacities. However, prior to this present study there has been virtually no empirical research on what proportion of the population of children actually have these kinds of experiences. Are we speaking of a few prodigious children or a common range of experiences among children? If a handful of exceptional children have a spiritual life then this may be an interesting area of study along lines similar to that of gifted development. If a larger proportion of the population of children have these encounters, it may demand a major revision in our assumptions, theories as well as our practices in the education and care for children.

Many of the earlier surveys of adults tended to use single, catchall questions such as, "Have you ever had a 'religious or mystical experience' that is, a moment of sudden religious insight or awakening?" Back and Bourque (1970) were using this question as a technical exercise in order to determine whether or not "very private" experiences could be investigated through the employment of regular survey and interview techniques. However, they noted that over the course of their three sample periods of 1962, 1966 and 1967, the question brought increasing positive response rates of 20.5, 31.8 and 41.2 percent, respectively. They concluded that it was not a function of cultural change which caused the progressive increase over the three Gallup polls they sponsored, but rather the interview techniques employed which affected the threshold of what an experient would consider reportable (Back and Bourque, 1970, p. 493).

Thomas and Cooper (1978) employed Greeley's (1974) general question ("Have you ever had the feeling of being close to a powerful spiritual force that seemed to lift you out of yourself?") as a net to capture the world of spiritual experients while Hay (1979b) used his own catchall question ("Do you feel that you have ever been aware of or influenced by a presence or a power, whether you call it God or not, which is different from your everyday self?"). In a larger-scale national study conducted together with Ann Morisy (1978) they used the same question. All of these single question surveys led to a wide variety of responses which were then subjected to a *post hoc* parsing into various categories of spiritual and non-ordinary experiencing.

These categories were drawn from the subject's descriptions and it is now generally accepted that the phenomenological approach to the study of 'private' experience, as witnessed in cognitive anthropology, for example, can provide useful descriptions of religious experience from a position of

ontological neutrality (Nelson and Howell, 1993-4). And Hay (1979) also argues that the recurrence and apparent uniformity and consistency of these experiences fits the requirements underlying all objective science.

The variety of experience types that have been reported in response to the single, catchall questions suggests that we are looking at a broad range of phenomena. Questions couched in, for example, religious and/or deistic terms potentially will miss experiencers who do not conceptualize their experiences in this way, and those who do may be dismissive of those experiences. In order to correct the lack of operational specificity of the earlier experience 'nets', Nelson (1989a, 1990, 1991) used ten more specific items based on the *ad hoc* categories gleaned from earlier work. In addition, he redefined how we might conceptualize these experiences developing three broad dimensions that encompassed psychological 'set' and 'setting' as well as phenomenological 'components' that describe the range of qualia 'seen' on this experiential 'horizon'.

In addition to the issue of frequency of occurrence, there remains the question of whether some individuals are more prone to these kinds of encounters. Several studies (Irwin, 1985; Nelson, 1989b) show a strong relationship between a particular personality trait, Absorption (Tellegen and Atkinson, 1974), and the frequency of occurrence of non-ordinary experiencing in adults. However, there have not been any studies to date that attempt to compare rates of reported childhood spiritual experiences with adult levels of Personality Trait Absorption as measured by the Tellegen (1982) Absorption subscale. Tellegen and Atkinson (1974) found in a factor analytic study of personality that their third major and largest factor was a cluster they labeled "Openness to Absorbing and Self-Altering Experiences" or "Absorption".

The scales with the highest loadings in both samples on this factor are Reality Absorption, Fantasy Absorption, Dissociation, and Openness to Experience, with Devotion-Trust and Autonomy-Criticality showing somewhat lower salient loadings. (p. 271)

The authors indicate that this type of personality phenomenon, while generally overlooked in academic treatments of attention, perception and memory, is referred to widely in the literature on meditation, altered states and peak experiences. They suggest that the attention described by the items of the Absorption scale "is a 'total' attention, involving a *full commitment of available perceptual, motoric, imaginative and ideational resources to a unified representation of the attentional object.*" According to Tellegen and Atkinson this personality attribute is an 'applied skill' and the experience is characterized by:

- A heightened sense of the reality of the attentional object;
- Imperviousness to normally distracting events;
- An altered sense of reality in general and of the self in particular (p. 274).

The authors conclude by asserting that:

Objects of absorbed attention acquire an importance and intimacy that are normally reserved for the self and may, therefore, acquire a temporary self-like quality. These object identifications have mystical overtones. And, indeed, one would expect high-absorption persons to have an affinity for mystical experience, even if true *unio mystica* is, itself, a rare attainment. (p. 275)

They further refine their notion of Absorption by concluding that the empirical evidence demonstrates that it is independent of 'Stability' ('Ego Resiliency') and 'Introversion' ('Ego Control'). In other words, the high Absorption subject may or may not have a strong and resilient sense of self and may or may not be impulsive thus indicating an independence of absorptive behavior from neuroticism (p. 275).

All this considered, this study will attempt to address, first, the broader issue of childhood spiritual experiences as outlined above—how common are spiritual and related experiences in childhood as recalled by young adults—and, further, it also will examine whether or not there is a link between the rate of this kind of experiencing and the absorptive personality style. Finally, the study also attempts to look for a relationship between the frequency of occurrence of spiritual and non-ordinary experiencing and self perceived depression and anxiety.

METHOD

A statistical survey of about four hundred and fifty young adults was conducted at the Department of Psychology at the State University of West Georgia. Participants were students who were taking Introductory Psychology (but not necessarily psychology majors) and were posed questions about a variety of different kinds of specific spiritual experiences rather than focusing on only one general question as has been more typical of surveys of this nature. Respondents were asked to rate the frequency of occurrence of each of items in tables 1a-1c on an ordinal scale ("Never;" "Once only;" "2-3 times;" "More often") with the additional option to tick "Don't Understand." There were additional items about related experiences included in the questionnaire, but they were not used in this analysis and therefore will not be examined here. The primary research items (21 in all) used were grouped into three general categories (meta-categories) as shown in tables 1a – 1c. These meta-categories are "Non-Ordinary Guidance" (NOG), "Non-Ordinary Perception" (NOP) and "Mystical Knowing" (MK). The rate of experience for each of these meta-categories is a derived variable created by setting logical criteria for what would constitute the general occurrence rate categories of 'Never', 'Rarely', 'More Often', and 'Frequently'. Using a series of logic statements the rate of occurrence of

each of the primary variables within each meta-category was used to create a meta-category experience rate that represents as closely as possible the overall participation respondent showed within a given meta-category.

The items in the meta-category, Non-Ordinary Guidance (Table 1a), include a sense of being guided that gives an impression to the experient of having been moved, pushed or guided in life-changing and important ways from some ontological 'otherness' beyond and greater than the ordinary world of people and objects. In addition, understanding requires an altered epistemic frame of reference including an altered belief in causality and how life works. Item 1 (NOG) directly asks this question whereas Item 2 (NOG) has the implication of guidance to the new practice. The kind of crisis alluded to in Item 3 (NOG) and the subsequent life changes that follow, are often interpreted as guidance to most experients and in this case it can be deemed as especially true since the item enquires about profound awareness (epistemic) changes resulting. In Item 4 (NOG) knowledge of God is often understood as mystical knowing but the key phrase is "...influenced by the presence of God" which would likely indicate an experience of being guided from some other ontic source. And in Item 5 (NOG) there is clearly an intervention from a non-ordinary other, ontological source that brings about an outcome thereby implying non-ordinary guidance.

Table 1a

<i>Items for Non-Ordinary Guidance—NOG</i>	
1.	Have you ever had the experience of receiving guidance from some source that is not part of our usual physical world?
2.	Have you ever encountered a time in your life, either precipitated by crisis or good times, which led you to adopt a new or different spiritual practice?
3.	Have you ever experienced a personal crisis which led to questioning your very identity only to have this process lead you to a new and profound awareness?
4.	Do you feel that you have ever been directly aware of or influenced by the presence of God?
5.	Have you ever had an accident and, at the moment it was happening, someone or something seemed to appear from nowhere and intervene to help you?

In the case of Non-Ordinary Perception (Table 1b), the grouping was conceptualized to include most paranormal awarenesses and knowings that require understanding through a revised epistemic frame and may or may not require an ontological source removed from the ordinary world. Whether or not these experiences are truly paranormal remains unknown. Here we are reporting what the experient understands the nature of the experience to be rather than attempting to assess it against any standard for actual paranormal perceptions. Items 1, 4, 5, 7, and 8 (NOP) imply the occurrences of a classic extra sensory perception (ESP) experiences (telepathy, clairvoyance, and pre/post-cognitions) whether these occur through dreams or waking states (Nelson, 1989a). Item 2 (NOP) indicates the operation of an emotional or sensual telepathy—a kind of deep empathy (Hart, 2000) whereas Item 3 (NOP) is the

classic near death experience (NDE) (Ring, 1985) and 6 (NOP) is an out-of-body experience (OBE) (Tart, 1968; Monroe, 1971).

Table 1b

<i>Items for Non-Ordinary Perception—NOP</i>	
1.	Have you ever had memories that felt like they were about you, but at the same time seemed to be about someone else of a different time and place?
2.	Do the presences and/or feelings of others seem to enter into you without any verbal or physical contact as if you are a receiver and they are transmitters?
3.	Have you ever had an experience during a life threatening event—such as an accident, major surgery or other physical trauma—in which you had an intense experience of a non-ordinary light or darkness and/or experienced meeting deceased loved ones or other disincarnate beings (beings in non-physical form).
4.	Have you ever seen, physically felt, smelled, or heard something or somebody that you realized in retrospect was not really there in the same way as ordinary everyday objects, people and events?
5.	Have you ever felt a presence of someone who was not there in a physical way?
6.	Have you ever had a vivid experience of 'flying' to a remote location without any physical means and/or have you had the experience of actually seeing your physical body from a perspective 'outside' of yourself?
7.	Do you ever feel that at times you know about events before they happen and/or you know about past events without having heard or read of them but later learn they actually happened?
8.	Do you ever feel that at times you know people's thoughts/feelings unusually accurately without being told or shown in any direct, physical way?

Finally, Mystical Knowing (Table 1c) was conceptualized as non-ordinary knowing that not only requires a different epistemic frame than that for ordinary, sensate experiences, but implies an ontological source beyond and encompassing that source from which the existence of ordinary people, things and events emerges. In this category Item 1 (MK) represents the penetration of illusion, as in 'seeing' behind the 'veil' that covers the ultimate truth, and Item 2 (MK) the gaining of knowledge and understanding from sources beyond ordinary ontological sources representing some kind of 'higher' truth as in revelatory knowing. Item 3 in this group represents an entry into a transcendental realm or mystical union as in Stace's notion of 'introverted' mystical experience (1960) as does Item 4 (MK). Items 5 and 7 (MK) contain significant elements of Stace's 'extrovertive' mystical experience and Item 6 (MK) has a similar element combined with Otto's (1958) "creature feeling" from his notion of the "Mysterium tremendum et fascinans." In the context of mystical knowing Item 6 can be seen as the "fascinans" from Otto's description, but it can also be an experience that has a more mundane interpretation. Thus, this item is probably borderline mystical knowing because the sort of wonderment alluded to may or may not point to a deeper ontology and an altered epistemic frame. However, taken in the total context of the MK items, it appears to add an element appropriate to it. Although the shamanic-like experience represented by the last item (MK 8) in this category is not typically referred to as mystical, in its epistemic and ontological implications it is closer to mystical knowing than to any of the other categories and was therefore included here.

Table 1c

<i>Items for Mystical Knowing—MK</i>	
1.	As a child, did you have times when you experienced life as an illusion and unreal, but one in which most people, including grownups, seemed to be caught up? (Perhaps it appeared to be like a play in which everyone was just acting but didn't know it.)
2.	Have you ever found yourself knowing and/or saying something that seemed to come through you, rather than from you, expressing a wisdom you don't feel you usually have?
3.	Have you ever felt as though you were very close to a powerful spiritual force that seemed to lift you out of or take you beyond your ordinary self?
4.	Have you ever had an intense experience of attaining union with the 'cosmic', divine or ultimate ground of being in which you felt yourself 'dissolve' or merge with the ultimate and after which you felt as though the encounter had changed your life?
5.	Have you ever had an experience in which you perceived that all was really connected together as one?
6.	Do you sometimes feel a sense of awe and wonderment inspired by the immediate world around you?
7.	Do you sometimes purposely 'tune in' to a special quality of the world that seems to underlie everything around us?
8.	<u>While awake</u> , have you ever suddenly been cast into a strange new world or reality which had a vividness that made the whole experience appear to be absolutely real although in retrospect you realized that the entire episode may not have physically happened?

Included with each of the primary experience items was a request for the respondent to enter both the age at which time s/he first had each experience and the age at which s/he last had an encounter. Of course, there are potential inaccuracies when individuals attempt to recall dates for specific events—especially from childhood. However, the kinds of events being recalled tend to stand out with exceptional vividness and, for most, the age of occurrence tends to be 'logged' with the remembered details of the event itself because of its milestone nature. In addition, the vast majority of our respondents were undergraduates in their late teens or early twenties and were, for the most part, not that great a time 'distance' from the period in which the recalled events occurred.

Following this first section, the 34 item Tellegen Absorption Scale was administered. Each of the scale's items also included two additional sub-items to be addressed for each item marked 'true' by the respondent. These sub-items were designed to assess the level of 'opportunity' respondents make for the kind of experience delineated by each Tellegen item as well as their self-perceived difficulty ('capacity') for having each of the 34 experience items (see Nelson, 1995 for an explanation of this extension of the Tellegen scale). Nelson's modification adds two ten-point rating scales to each primary item. The first sub-item assesses the respondent's frequency of initiating the behavior described in the Tellegen item and the second additional sub-item ascertains how easy or difficult it is for the respondent to engage in the behavior described in each scale item. The final score for the primary Tellegen Absorption items is the sum of all 'True' responses (given a value of 1 each) and referred to in this paper as the Total Absorption Score (TAS). For each of the added sub-items the final score is the sum of the individual ratings for each of the 34 sub-items of each type ('opportunity' and 'capacity'), the former score being labeled Total Absorption Opportunity Score (TAOS) and the latter the Total Absorption Capacity Score (TACS).

Following this section items inquired about participants' history of medically treated mental illness as well as asking them to self-assess rates of occurrence of depression and anxiety. In the final section of the questionnaire demographic data (including gender, age, birth religion, current religious affiliation, church attendance, related church activities attendance, and frequency of change of religious affiliation in the respondent's lifetime) were obtained.

RESULTS

Demographic Analysis

The sample collected (N= 453) is comprised of 73.5% females and 24.7% males (8 cases refused or neglected to indicate gender on the last page of the questionnaire [1.8%]). The mean age of the group is 20.5 years (median = 19, S.D. = 4.438) with all but 17 (3.8%) respondents giving their age (number of years "at my last birthday"). The maximum age reported was 52 (mature-age student) and the minimum was 15 (some high school students are able to attend college courses at the State University of West Georgia). 94.7% of the sample reporting their age was under 25 years. So, for the most part, this group ranged in age between 15 and 25 years.

Of the 428 (94.5%) respondents answering the item on birth religion, 90.0% claimed to have been born some form of Christian, 7.2% indicated there was no religious affiliation at birth with the remainder consisting of two Jews, two Buddhists, one Muslim, one Pagan and a few assorted "Other" non-common organizations. When asked what their *current* religious affiliation is, 79.6% claimed to be Christian with 12.9% now claiming no religious organizational connection and 4.7% of respondents indicating "Other". Of the overall sample, 53.5% attend their chosen religious center once per month or more with 10.8% attending more than once per week and 4.7% never attending (17.8% responding affirmatively to current religious affiliation indicated that their frequency of attendance "Does not apply"). Of those whose religious organizations have additional activities available, 31.0% attend them. This sample is undoubtedly overwhelmingly Christian in both background and by current religious affiliation and this group's self-reported religious participation rate is generally in line with the national average for the United States as reported in other surveys. In our group 57.8% females attend their chosen religious organization once per month or more while males attend at a rate of 40.5%. In a large scale study conducted in the United States and Australia, it was found that 49.6% of American women aged 50 and younger attend once per month or more while males in the same age range in that American sample attend at a rate of 41.0% (Kirk et al, 1999).

Analysis of Meta-Categories: NOG, NOP and MK

For the overall group, over 90% appear to feel as if non-ordinary guidance has taken place in the movement of their lives with nearly 60% believing that this has been a fairly regular part of their lives (see Table 2a for breakdowns of the three meta-category ranks of participation). Of course, this is not surprising for a group overwhelmingly Christian with a 40-60 percent church attendance rate. In addition, over 90% of the sample believe they have non-ordinary perceptions as defined by the items in Table 1b with more than 65% claiming these as fairly regular occurrences. Comparing the NOP and NOG groups, respondents in the highest experience rate rank ("Frequently") represent 25% of the sample in the case of the former and 7% for the latter.

Table 2a: Frequency of Occurrence of NOG, NOP and MK Meta-Category Experience Types for all age groups

Frequency	NOG		NOP		MK	
	Count	%	Count	%	Count	%
Never	39	8.61	34	7.51	37	8.17
Rarely	155	34.22	120	26.49	136	30.02
More Often	228	50.33	186	41.06	179	39.51
Frequently	31	6.84	113	24.95	101	22.30

For the mystical knowing (MK) group, the percentages are very similar to those seen in the NOP breakdown. There are no apparent gross differences across the three general experience types for frequency of occurrence. However, the process of converting the 21 items into meta-categories (NOG, NOP, MK) may have altered the overall distribution of experience rates such that fewer experients are now found in the "Frequently" category because the conversion process used a conservative approach and tended to re-rank experients 'downward' into the "More Often" and "Rarely" levels.

In particular, the downward ranking of the NOG group may be due to the fact that fewer people feel this sort of guidance daily. Examining the single item that most directly accesses the function of 'guidance', the numbers are more heavily weighted toward the high occurrence rank rather than loaded in the middle. However, the items about 'crisis' and especially 'God' (over 50% claim 'More Often') may tend to drag the numbers upward for guidance. Otherwise, Christian religious culture may be an explanation in that experients may tend to understand events as the result of guidance originating from a deistic source.

A Chi-Square test for dependency between the meta-category rank, NOG, and gender reveals a strong relationship (Chi-square = 12.42, 3 df, p = 0.0061). Women tend to be over-represented in the two higher frequency of occurrence ranks ("More Often" and "Frequently") whereas men are under-represented in these ranks. 92.8% of women report one or more NOG type experiences in their lives with only slightly fewer men (88.4%) reporting any experiences of these types. However, 61.9% of

women report rates in the top two ranks, whereas only 42.9% of men do. NOP type experiences, on the other hand, show no dependency with gender with 93.3% of women reporting any experiences and 92% of men similarly reporting. Finally, the meta-category of Mystical Knowing cross-tabulated with gender reveals a borderline dependency (Chi-square = 5.462 with 3 df, p = 0.1409). However, this time men (70.6%) are somewhat over-represented in the higher two experience rate ranks compared to women (59.4%) with men showing an overall rate of experience of 92.9% and women a similar rate of 91.8%.

For each subject in the sample a mean age for first experience was calculated for those respondents reporting a first age of occurrence. The mean of the mean ages for each meta-category was derived which shows a clear trend for first-time spiritual and related non-ordinary encounters to occur in early adolescence (NOG mean = 14.0, St.D. = 4.1; NOP mean = 13.6, St.D. = 4.0; MK mean = 12.7, St.D. = 4.6). The mean ages for each meta-category were then grouped into age ranks as shown in Table 2b and frequency breakdowns for each meta-category were calculated.

Table 2b: *Distribution of NOG, NOP and MK Meta-Category Experience Types across age groups*

Age Range	NOG		NOP		MK	
	Count	%	Count	%	Count	%
Under 6 yrs	5	1.656	4	1.429	21	7.266
6 to < 12 yrs	73	24.172	88	31.429	95	32.872
12 to < 18 yrs	172	56.954	145	51.786	144	49.827
18+	52	17.219	43	15.357	29	10.035

It is immediately evident that adolescence (age 12 to under 18 years) is the time that this sample reports the highest rates of first encounters for all three experience types. What is even more interesting, however, is the relatively high occurrence in all meta-categories of first experiences reported in pre-adolescence (age 6 to less than 12 years). Almost a quarter of those giving first ages in the NOG group claim a first encounter in pre-adolescence while NOP and MK experients represent almost a third of first-time spiritual and related encounters.

Analysis of Non-Ordinary Guidance items

Referencing the items which comprise the NOG meta-category (Table 1a), Table 3 provides a breakdown and summary for each of those items. The columns labeled "Never", "Once" and "2 or More" provide the percentages of participation for rates of occurrence of each NOG item. "Mean Age First" is the average age for the first occurrence of a given item and "Mean Age Last" for the last occurrence (SD = Standard Deviation). The last four columns of the table provide percentage participation rates of experients across age ranks of the occurrence of a first encounter for each item of

those reporting an age (those reporting an encounter without giving an age are not counted in this summary).

Table 3: *Frequency of Occurrence*, Mean Ages of First and Last Occurrences, and Age Distribution of Occurrence of NOG Items*

NOG Items	Never (%)	Once (%)	2 or More (%)	Mean Age First (years)	Mean Age Last (years)	Less than 6 years (%)	6 to <12 years (%)	12 to <18 years (%)	18 years & Over (%)
1	35.8	11.0	50.3	12.1 SD=5.53	19.7 SD=4.57	13.7	31.1	40.4	14.9
2	69.9	18.4	11.1	15.4 SD=4.03	21.1 SD=7.24	1.0	13.9	58.4	26.7
3	40.0	30.1	28.3	16.2 SD=3.51	19.5 SD=4.05	0	6.5	56.0	37.5
4	21.4	9.3	66.9	16.2 SD=3.51	19.5 SD=4.05	8.1	35.3	42.2	14.5
5	73.6	12.9	12.2	14.2 SD=5.41	18.3 SD=4.31	5.5	27.4	41.1	26.0

*For each NOG item the sum of the percentages of frequency of occurrence does not equal 100 because some respondents checked "Don't Understand" as their response to an item. In addition, discrepancies in percentages across first age ranks with those given in the text for each item are a result of the fact that the proportions used in the text for each item include only those individuals who also reported a usable response for frequency of occurrence.

An examination of Table 3 reveals that experiences 1 and 4 show quite high percentages of experients as having had these encounters more than once. Both items represent direct guidance from an ontologically 'other' source. When that source is specifically labeled as being God, the response rate of the sample is highest (total participation = 76.2%). On the other hand, items 2 and 5 show the lowest overall rates of occurrence (29.5% and 25.1%, respectively). The former item implies that one is being guided to a new religio-spiritual life while the latter accesses the notion of a personal intervention for some specific event. What is most striking from Table 3, however, are the peaks in the percentages of first experience ages falling in adolescence (ages 12 to under 18 years—see Figure 1a).

Items 2 and 3 appear to have related distributions across first-age ranks as do items 1, 4 and 5. This may be due to the conceptual relationship between these items—2 and 3 are about crisis induced change whereas the other three items are conceptually to do with guidance and/or intervention from a source outside of normal reality given more on an on-going basis. In the breakdown given in Table 3, the distribution of experients across first-age ranks shows adolescence—followed in rate of participation by pre-adolescence—is most often the time when individuals appear to have their first experience of non-ordinary guidance.

Figure 1a: Relative Rates of NOG Experiences Across First Age Ranks

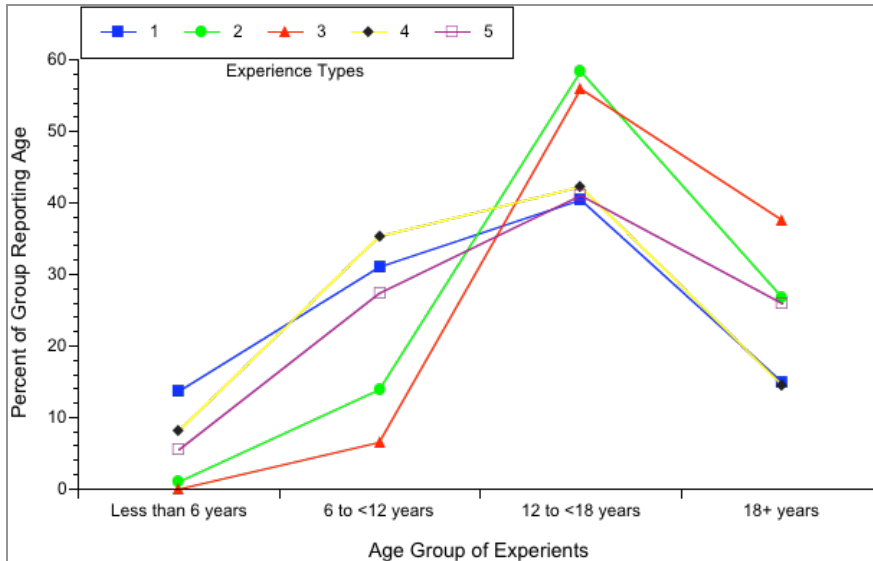


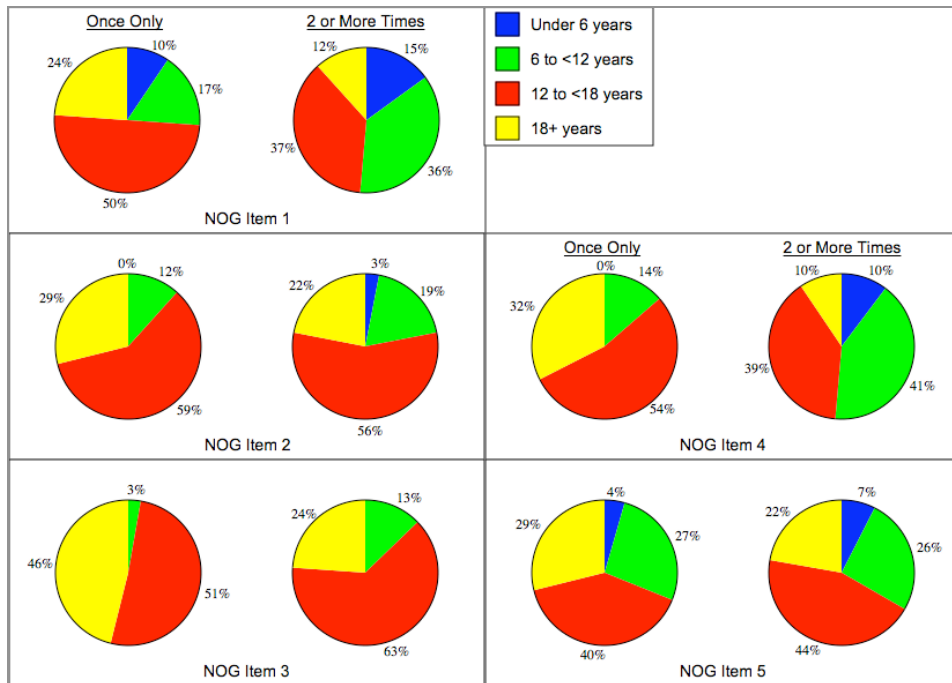
Figure 1b illustrates the relationship of age ranks to experience rates graphically for each of the NOG items. The left-hand columns of pie charts (for each column pair) represents whether an experient reports only one occurrence of a given item and the second column displays those who have had more than one encounter. The individual 'pies' show the distribution of age groups across experience rates ('One'; 'Two or More').

It is immediately evident that adolescence (aged 12 to under 18 years) is the single most important time for first experiences of the NOG type. When combined with the pre-adolescent group (aged 6 to under 12 years), as many as 80% (NOG Item 4—"2 or More Times") of first time experiences are accounted dropping to slightly more than half for the smallest of these combined groups (NOG Item 3—"Once Only"). Figure 2 thus reveals that the preponderance of these experiences commenced in adolescence and pre-adolescence combined.

NOG Item 1—"Have you ever had the experience of receiving guidance from some source that is not part of our usual physical world?"

Of those responding affirmatively to this item, 71.4% had one or more episodes of this experience type starting between the ages of 6 and 18 years. A Chi-Square test for dependency of the two categorical variables, age rank of first encounter and frequency of occurrence, reveals a significant relationship (Chi-square = 8.827, 3 df, p = 0.0317). One cell had only 4, so this statistic is only suggestive. Nevertheless, the suggestion is that those who start having this type of experience at a younger age (less than 18 years) are somewhat more prone to having this encounter more than once. However, the relative youthfulness of this sample may exaggerate this effect.

Figure 1h Distribution of percentage of NOG experients across first-age ranks and for each lifetime frequency of occurrence rank



NOG Item 2— "Have you ever encountered a time in your life, either precipitated by crisis or good times, which led you to adopt a new or different spiritual practice?"

Assuming that spiritual practice is equated in the minds of most Americans with religious affiliation and belief, it is not surprising that 70% answered 'Never' to this item since it would mean disloyalty to one's church and hence disloyalty to and exclusion from community. Here, too, almost three quarters (72.3%) of the experients for this item report their first encounter from age six to under 18 years. However, here there is no significant dependency relationship between age rank of first encounter and experience rate.

NOG Item 3— "Have you ever experienced a personal crisis which led to questioning your very identity only to have this process lead you to a new and profound awareness?"

To this item considerably more than half (58.4%) of participants gave a positive response with 62.5% of first encounters of this type taking place within the periods of adolescence and pre-adolescence combined. Those claiming only one encounter had a fairly high representation (46%) in the 18 and over age group, while those in the multiple experience group had their greatest representation in the twelve to under 18 year age group (63.4%). A test for dependency between age rank of first encounter and experience rate yielded a significant result (Chi-square = 13.51, 2 df, p = 0.0012) again showing that those who commence earlier (less than 18 years) are somewhat more prone

to having this particular experience type more than once. As previously, one cell was under subscribed, so the results must be taken as suggestive only.

***NOG Item 4**— "Do you feel that you have ever been directly aware of or influenced by the presence of God?"*

To this item, two thirds of the respondents indicated that they had had an encounter of this kind two or more times with 77.5% of those reporting this experience having had it from age 6 to before age 18. Again, as in the previous item, the first-timers, who are 18 years and over, are a greater proportion of the "Once Only" group (32.4%) than they are of the multiple experience group (9.6%). Here, too, there is a significant dependency relationship between age rank of first encounter and experience rate (Chi-square = 22.22, 3 df, $p \leq 0.0001$) with the age group of first experients from 12 years and under disproportionately represented among those who report multiple experiences. One cell was empty ("Under 6 years" and "Once Only") and, as before, the results can only be taken as suggestive.

***NOG Item 5**— "Have you ever had an accident and, at the moment it was happening, someone or something seemed to appear from nowhere and intervene to help you?"*

This item, like Item 2, had a very high negative response rate (73.6%). Of those that did respond affirmatively over two thirds (68.1%) fell into the age range 6 to under 18 for their first encounters. However, here there appears to be no dependency relationship between age rank of first encounter and experience rate in this case.

Analysis of Non-Ordinary Perception items

Table 4 reveals that for items 1-4 and 6 half or more of the group surveyed claimed never to have had these experiences with items 3 and 6 reporting negatively 90% and 79% of the time, respectively. It is worth noting that Item 3, the least reported for this sample in this category, shows the oldest occurring age 'peak' (post-adolescence) for a first-time experience (see Table 4 and Figure 2a) and may be underrepresented due to the young average age of this sample. Item 8, however, seems to be fairly common (69.6% report it) and is probably the least non-ordinary in the NOP meta-category. It is clear from Figure 2b that of those reporting NOP experiences, half or more of first encounters were in adolescence or pre-adolescence except in the case of Item 3 ("Once-Only"), and Item 8 ("Once-Only") experients. Again, this may be due to the age range of the sample. All of the NOP items, except for 1 and 3, show a very similar pattern of onset distribution across age ranks (Figure 2a) peaking in adolescence (12 to <18 years). Item 1 peaks in pre-adolescence and, as indicated above, Item 3 peaks in young adulthood (18 years or older).

Table 4: Frequency of Occurrence*, Mean Ages of First and Last Occurrences, and Age Distribution of Occurrence of NOP Items

NOP Items	Never (%)	Once (%)	2 Or More (%)	Mean Age First (years)	Mean Age Last (years)	Less than 6 years (%)	6 to <12 years (%)	12 to <18 years (%)	18 years & Over (%)
1	57.4	9.1	29.9	12.1 SD=4.62	19.4 SD=5.06	7.6	41.3	38.0	13.0
2	52.3	3.8	38.5	12.9 SD=4.95	19.8 SD=4.89	14.8	20.5	50.0	14.8
3	89.6	5.8	3.1	15.3 SD=7.39	19.2 SD=6.88	17.9	10.7	25.0	46.4
4	55.5	14.5	29.2	13.5 SD=5.95	18.2 SD=6.06	8.5	25.4	45.4	20.8
5	41.4	14.6	42.9	13.3 SD=5.02	19.3 SD=5.22	7.9	27.2	45.0	19.9
6	78.9	6.9	13.5	13.3 SD=4.39	17.1 SD=3.50	6.9	24.1	60.3	8.6
7	37.3	6.2	55.1	13.2 SD=4.31	19.4 SD=4.23	4.9	26.4	52.1	16.7
8	29.7	4.9	64.7	13.5 SD=4.68	20.0 SD=5.36	5.7	25.5	48.4	20.4

*For each NOP item the sum of the percentages of frequency of occurrence does not equal 100 because some respondents checked "Don't Understand" as their response to an item. In addition, discrepancies in percentages across first age ranks with those given in the text for each item are a result of the fact that the proportions used in the text for each item include only those individuals who also reported a usable response for frequency of occurrence.

Figure 2a: Relative Rates of NOP Experiences Across First Age Ranks

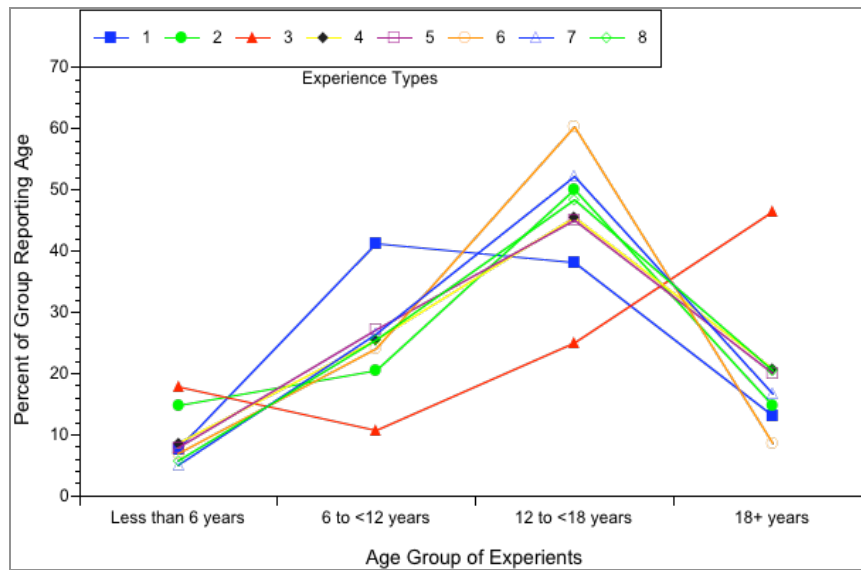
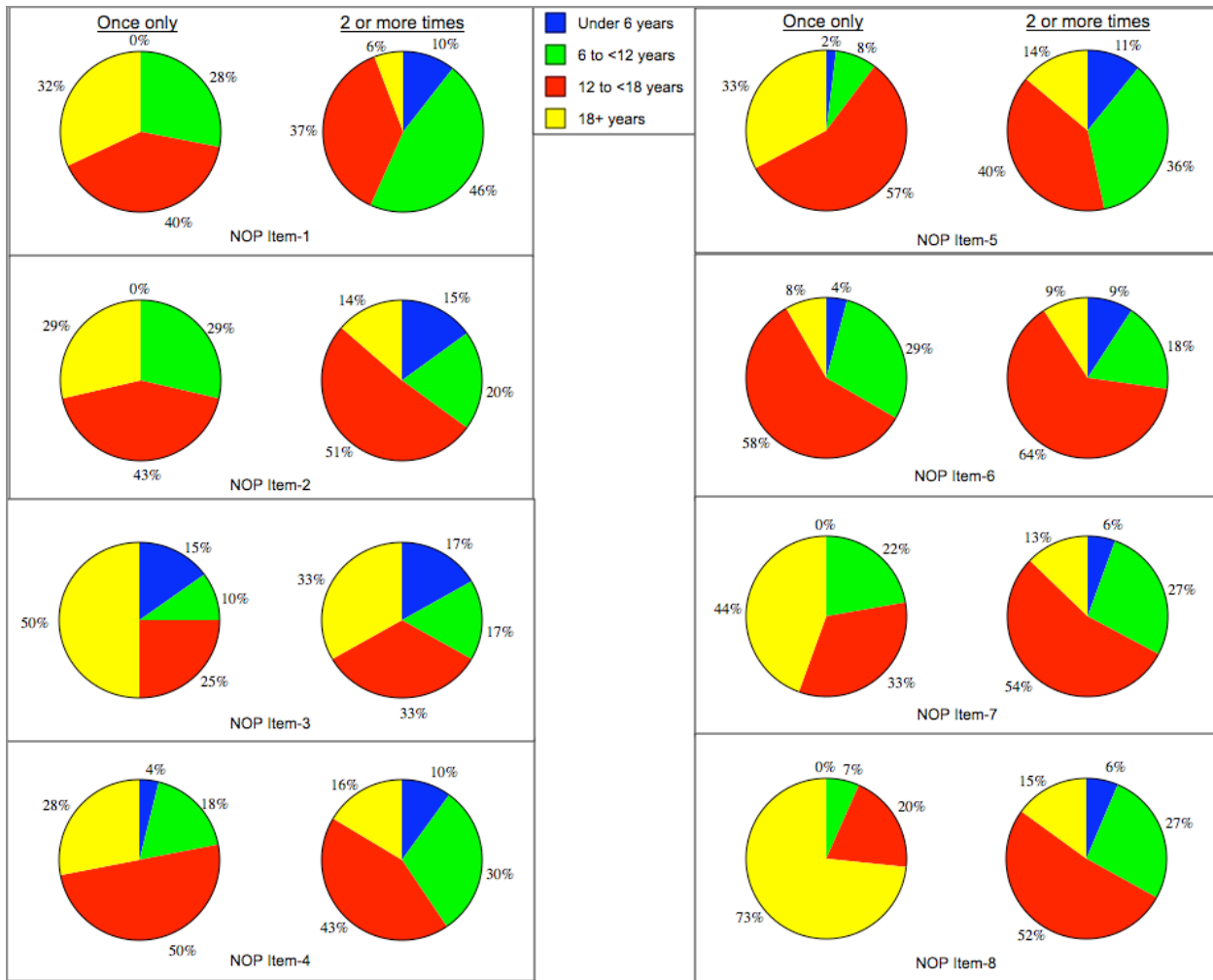


Figure 2h Distribution of percentage of NOP experiencers across first-age ranks and for each lifetime frequency of occurrence rank



NOP Item 1—“Have you ever had memories that felt like they were about you, but at the same time seemed to be about someone else of a different time and place?”

For those responding affirmatively to this question, 79.4% had their first encounter sometime from age 6 to before their eighteenth birthday with the pre-adolescent group representing slightly more than half of that sub-group (41.3% of all reporting the experience). A test for dependency between age rank of first encounter and rate of occurrence over life-time so far reveals a significant result (Chi-square = 13.58, 3 df, $p = 0.0035$). However, with two cells underrepresented (0 and 4), the results are rather weak. What the cross-tabulation does suggest is similar to previous analyses: starting younger is indicative of an individual who will tend to have a given experience more often in life.

***NOP Item 2**— "Do the presences and/or feelings of others seem to enter into you without any verbal or physical contact as if you are a receiver and they are transmitters?"*

The perceptions characterized by this item occur for the first time for 71.3% of experients during the period from age 6 to under 18 years of age. However, here the majority of experients from that group had their first encounter in adolescence. In this case, there was no dependency relationship between age rank of first encounter and rate of occurrence.

***NOP Item 3**— "Have you ever had an experience during a life threatening event—such as an accident, major surgery or other physical trauma—in which you had an intense experience of a non-ordinary light or darkness and/or experienced meeting deceased loved ones or other disincarnate beings (beings in non-physical form)."*

Item 2 is represented in this overall sample by a fairly small group of experients (N = 26 or 5.7% of the entire sample). This type of near death (NDE) or trauma encounter is not particularly wide spread in the normal population (Nelson, 1989a) and, in the case of a young sample, would be expected to occur even less frequently. Nevertheless, half of the one-time experients in this group had their first encounter at age 18 or later and this age group for combined single and multiple experients is the single largest sub-group for this item containing 46.2% of the experients.

***NOP Item 4**— "Have you ever seen, physically felt, smelled, or heard something or somebody that you realized in retrospect was not really there in the same way as ordinary everyday objects, people and events?"*

Almost half of the respondents to this item indicated at least one experience of this type. Again, the combined first age groups spanning ages 6 to under 18 account for 71.4% of the reports with the 12 to under 18 year olds accounting for the largest single group of first-timers (45.8% of all positive respondents). The dependency relationship between age rank of first encounter and rate of occurrence over respondent's life-time so far reveals a borderline significance (Chi-square = 5.591, 3 df, $p = 0.1333$). In this case those under 12 years of age are slightly over-represented as the starting point for those who tend to have multiple experiences.

***NOP Item 5**— "Have you ever felt a presence of someone who was not there in a physical way?"*

For this item well over half of the respondents indicated having had this kind of experience (57.5%). The largest single starting age group is 12 to 17 year olds (45.4% of experients) with the 6 to under 18 year olds representing 72.1% of all positive respondents to this item. A test for dependency between age rank of first encounter and rate of occurrence over life-time so far yields a highly significant Chi-square statistic (20.64, 3 df, $p = 0.0001$) with a tendency for multiple experients to be over-represented as starting in the two youngest age groups.

NOP Item 6— "*Have you ever had a vivid experience of 'flying' to a remote location without any physical means and/or have you had the experience of actually seeing your physical body from a perspective 'outside' of yourself?*"

Here, again, is an item with a relatively low overall positive response rate (20.4%). As in previous items, the middle two first-time age ranks hold the majority of experiencers—single and multiple (84.2%)—with the 12 to under 18 year old age group holding the majority of experiencers (61.4%) for this type.

NOP Item 7— "*Do you ever feel that at times you know about events before they happen and/or you know about past events without having heard or read of them but later learn they actually happened?*"

This NOP item had a 61.3% positive response rate, overall, with 78.4% of experiencers falling among the 6 to under 18 year old first-timers with the largest single first-age group being 12 to under 18 year olds (51.8%). A test for dependency between age rank of first encounter and rate of occurrence over life-time so far generates a significant result (Chi-square = 11.89, 3 df, $p = 0.0078$) but can be taken as suggestive only because two cells are underrepresented. This dependency appears to be generated by a marginal tendency for multiple experiencers to start having this experience under the age of 18.

NOP Item 8— "*Do you ever feel that at times you know people's thoughts/feelings unusually accurately without being told or shown in any direct, physical way?*"

Item 8 had the single highest positive response rate for the entire NOP group—69.6% having had one or more of this experience type. Unlike the majority of the other items, one-time experiencers in this group had their first and only encounter at 18 or older (73%). However, the total number of individuals falling into the once-only rate for this item are relatively small (15). In line with most of the previous items, experiencers who have had more than one experience of this type overwhelmingly start during the period from 6 to under 18 years of age (79% of multiple experiencers; 73.4% of all experiencers for this item) with the largest share in adolescence (52% of multiple experiencers; 48.8% of all experiencers for this item). Here, too, there is a significant dependency relationship between age rank of first encounter and rate of occurrence over life-time so far (Chi-square = 28.06, 3 df, $p \leq 0.0001$), but, again, there are not enough items in three of the eight cells to allow us to take this result as being anything more than somewhat suggestive.

Analysis of Mystical Knowing Items

All but Item 1 in this meta-category follow a similar pattern of distribution of proportions of experiencers across age ranks for first occurrence (see Table 5 and figures 3a and 3b), sharply peaking at adolescence (ages 12 to less than 18 years of age). On the other hand, Item 1 follows an entirely

separate pattern of occurrence with first encounters peaking for the age group under 6 years and falling off to near zero by age 18. In addition to its non-conforming distribution, Item 1 also had the highest response rate to the choice, "Don't Understand," indicating that it was problematic for this sample.

Table 5: Frequency of Occurrence*, Mean Ages of First and Last Occurrences, and Age Distribution of Occurrence of MK Items

MK Items	Never (%)	Once (%)	2 Or More (%)	Mean Age First (years)	Mean Age Last (years)	Less than 6 years (%)	6 to <12 years (%)	12 to <18 years (%)	18 years & Over (%)
1†	52.0	6.7	27.2	6.9 SD=3.47	14.7 SD=5.18	43.1	40.7	15.4	0.8
2	42.5	10.2	44.1	13.8 SD=5.25	19.5 SD=5.31	7.7	18.5	54.6	19.2
3	60.0	10.2	27.7	14.2 SD=4.76	20.4 SD=6.13	5.3	23.2	48.4	23.2
4	67.2	9.5	9.5	15.7 SD=4.87	20.3 SD=5.90	1.6	14.5	53.2	30.6
5	52.6	10.0	28.8	14.7 SD=4.87	19.8 SD=5.69	4.2	17.9	48.4	29.5
6	19.6	5.8	72.4	12.2 SD=4.94	20.1 SD=4.24	12.1	27.5	45.6	14.8
7	61.3	4.0	23.8	15.8 SD=4.83	20.3 SD=6.18	1.6	9.5	52.4	36.5
8	81.4	3.5	12.0	12.3 SD=5.43	17.9 SD=6.01	18.2	15.9	50.0	15.9

*For each NOG item the sum of the percentages of frequency of occurrence does not equal 100 because some respondents checked "Don't Understand" as their response to an item. In addition, discrepancies in percentages across first age ranks with those given in the text for each item are a result of the fact that the proportions used in the text for each item include only those individuals who also reported a usable response for frequency of occurrence.

†14.1%—the largest proportion for any item in any meta-category—indicated that they did not understand this item.

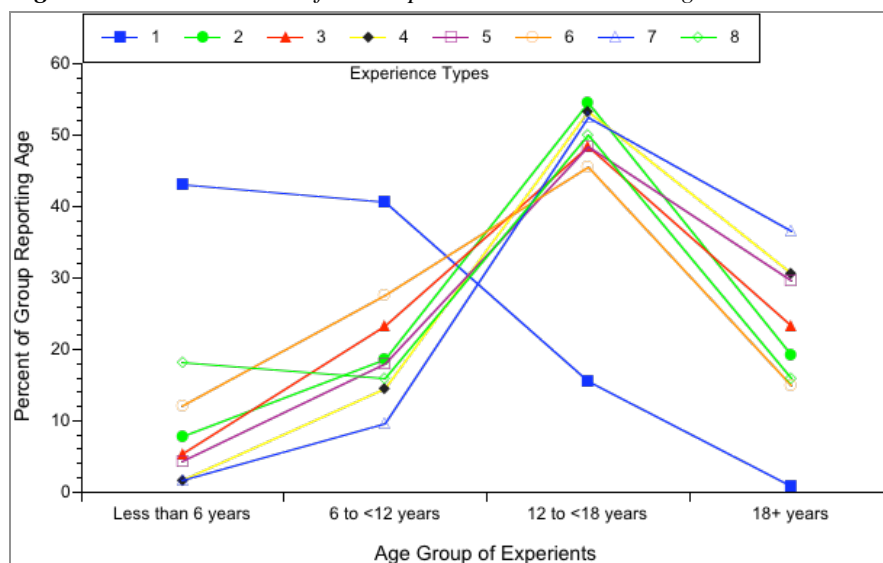
MK Item 1— "As a child, did you have times when you experienced life as an illusion and unreal, but one in which most people, including grownups, seemed to be caught up? (Perhaps it appeared to be like a play in which everyone was just acting but didn't know it.)"

As indicated above, the distribution of first encounters is such that 83% of all respondents having one or more experience are under 12 years old. The very steep drop off in reported first experiences with increasing age indicates that the lack of occurrence from about age 18 onward may be due to acculturation into consensual norms of how the world works. A contingency table of age rank of first encounter versus rate of occurrence over life-time so far shows a borderline significant dependency relationship (Chi-square = 6.908, 3 df, $p = 0.0749$) with an over-representation of experients in the lowest age rank who go on to have multiple experiences.

Although this item can be understood as classically mystical (see Table 1c), it can also indicate an incipient psychoticism ("world as illusion and unreal"). Thus data collected on treatment for psychiatric disorder was cross-tabulated with the collected frequency of occurrence for this item yielding a significant result (Chi-square = 9.656, 3 df, $p = 0.0217$) with a tendency for those reporting mental illness to be more likely to report having had an Item 1 experience.¹ 42.5% of those responding to Item 1 and indicating that they had been treated for mental disorder claimed never to have had this

experience—but 57.5% did. Although one cell number is below 5, the results are still strongly suggestive and, therefore, when these results are taken together with the very different age of first occurrence distribution (Figure 3a) as compared to the other MK items, we may be looking at something other than spiritual experiencing in these cases. It has been speculated that some cases of psychosis may be, in fact, what we previously have called a "failed mystic" and these experiencers may represent a cross-over group including a mix of psychotic ideation and mystical experiencing (Nelson, 2000). Alternatively, seeing life as an illusion may be at odds with consensual notions of reality—creating a clash of worldviews—and, therefore, be a source of fundamental confusion and subsequent psychological difficulty for experiencers trying to live out their beliefs within the confines of cultural norms.

Figure 3a: Relative Rates of MK Experiences Across First Age Ranks



MK Item 2— "Have you ever found yourself knowing and/or saying something that seemed to come through you, rather than from you, expressing a wisdom you don't feel you usually have?"

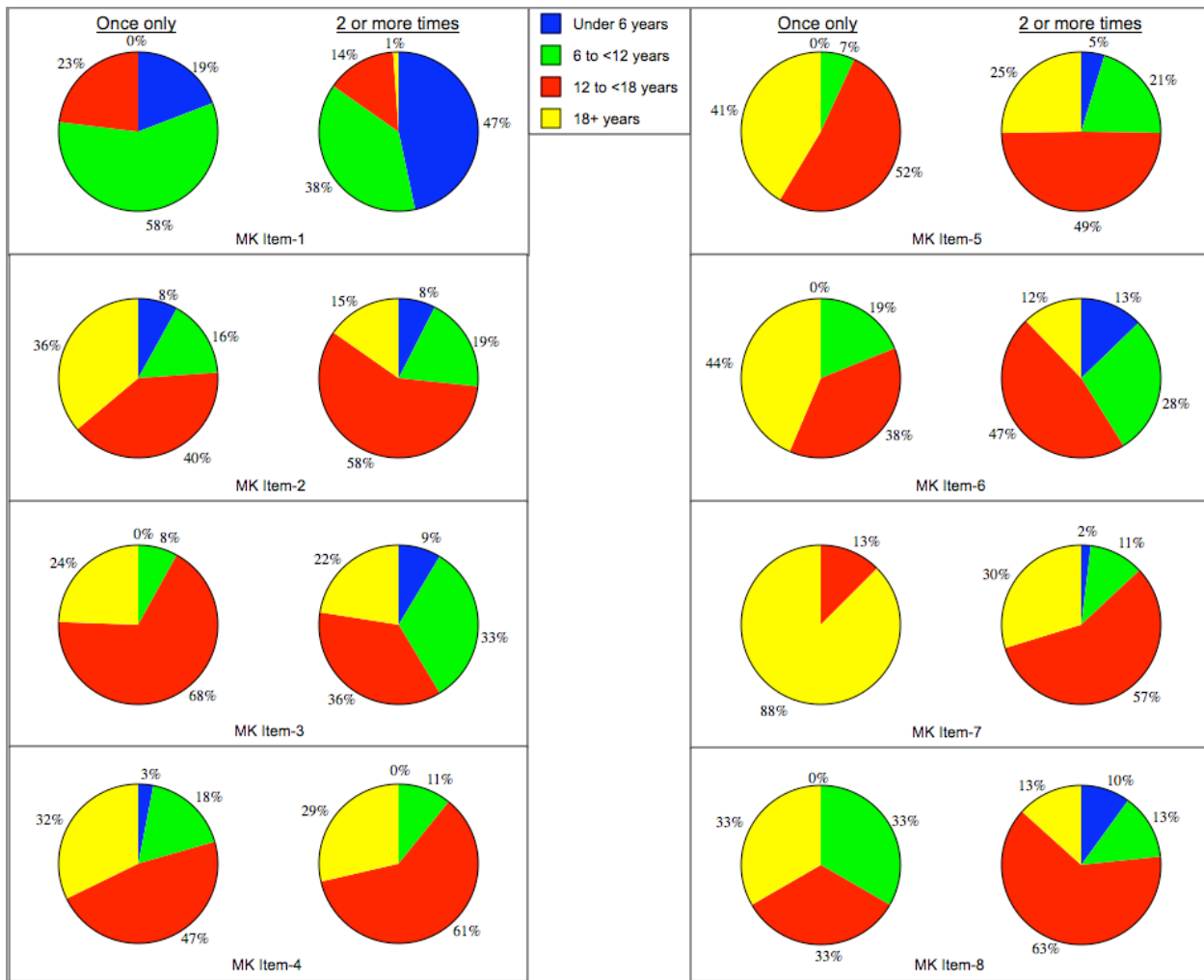
Well over half (54.3%) of the respondents record having this experience with 54.6% of those recording any experience falling into the 12 to under 18 year old age group at the time of their first encounters. The distribution of experiencers in the two adjacent age groups is about evenly split but less than half of the group of adolescents. 58% of multiple experiencers commence these experiences during adolescence while only 40% of those who have had only one encounter start then.

MK Item 3— "Have you ever felt as though you were very close to a powerful spiritual force that seemed to lift you out of or take you beyond your ordinary self?"

In this case, only slightly more than a third (37.9%) of participants indicated that they have experienced "a powerful spiritual force" with 48.4% starting during adolescence (12 to less than 18

years of age) and 23.2% commencing in pre-adolescence (6 to less than 12 years of age). A test for dependency between age rank of first encounter versus rate of occurrence over life-time so far is significant (Chi-square = 13.74, df, p = 0.0033) showing an over-representation of multiple experiencers who start in the lowest two age ranks. As in most of these tests throughout, the numbers per cell are fairly low and in this case two cells are under represented leaving the results as slightly suggestive only.

Figure 3b Distribution of percentage of MK experiencers across first-age ranks and for each lifetime frequency of occurrence rank



MK Item 4— "Have you ever had an intense experience of attaining union with the 'cosmic', divine or ultimate ground of being in which you felt yourself 'dissolve' or merge with the ultimate and after which you felt as though the encounter had changed your life?"

For this item more than two-thirds of the entire sample indicated that they had never had such an encounter and the majority reporting it started in adolescence (53.2%). Just under a fifth (19%) claim to have had this classic mystical encounter, but there does not appear to be any dependency relationship

between age at start and rate of occurrence. Of course, the total number reporting both age of first encounter and occurrence of this experience is too low (62) to allow for any clear conclusions to be drawn.

MK Item 5— "*Have you ever had an experience in which you perceived that all was really connected together as one?*"

Well over one third of respondents indicated that they had had an experience of this type (38.8%) with half of the experient group starting during adolescence. However, unlike many of the other experience types, the group comprised of 18 year olds and over contains the next largest collection of first time experients (30.4%) suggesting an overall later starting period for this kind of encounter. Again, there is no dependency between experience rank and starting age and with the total numbers reporting both variables being about 20% of the sample, any conclusions must be considered tentative.

MK Item 6— "*Do you sometimes feel a sense of awe and wonderment inspired by the immediate world around you?*"

This item had the strongest positive response to any in the MK meta-category (78.2%) with 45.8% of the sample reporting both starting age and experience frequency indicating that these encounters first commenced during adolescence and 27.7% during pre-adolescence (6 to less than 12 years of age). Here a fairly strong dependency relationship exists between first encounter age versus rate of occurrence over life-time so far (Chi-square = 12.59, 3 df, $p = 0.0056$), but with two cells being under-represented the indication that multiple experients tend to start more often in adolescence and pre-adolescence is suggestive only.

MK Item 7— "*Do you sometimes purposely 'tune in' to a special quality of the world that seems to underlie everything around us?*"

Nearly two-thirds of those responding to this item indicated that they never 'tune in' in the manner suggested (61.3%). Here, as in most other experiences reported in this paper, the majority (51.6%) appear to start during adolescence whereas the majority of the remainder start later during the period 18 years and older (37.1%). A contingency table cross-tabulating rank of starting age with rate of experience yields a significant dependency relationship between these variables (Chi-square = 10.05, 3 df, $p = 0.0181$) indicating that younger starting ages are more likely to lead to being multiple experients.

***MK Item 8**— "While awake, have you ever suddenly been cast into a strange new world or reality which had a vividness that made the whole experience appear to be absolutely real although in retrospect you realized that the entire episode may not have physically happened?"*

This item received the second-highest 'Never' response for all items in the first section of the questionnaire (81.4%). Only a small number of respondents reported this experience and those who answered it positively and recorded a first age of occurrence were only 39 individuals thus making any conclusions about this item very tenuous. Nevertheless, the age period of first start reported by those answering both experience and age items was predominantly adolescence (56.4%) with all but 3 individuals evenly divided between pre-adolescence and the 18 and over age groups. In this case there is no significant dependency relationship, but, again, the number of respondents in this group is too low to give a meaningful indication one way or the other.

The Absorption Domain and Spiritual Experiencing

In the final section of the data analysis, we explore the relationship of between rate of experience for NOG, NOP and MK meta-categories and levels of Personality Trait Absorption including the total Absorption score (TAS), the Total Absorption Opportunity Score (TAOS), and the Total Absorption Capacity Score (TACS). Frequency and normal probability plots of the variables, TAS, TAOS and TACS, were made with the results indicating that these variables were suitable for use as continuous variables in one-way analyses of variance across the categorical variables, NOG, NOP and MK, for experience frequency rank.

Analysis of Total Absorption Score—TAS

The mean TAS for the entire group is 18.04 with a median of 18, standard deviation of 7.162, minimum score of 0 and a maximum of 34 (max possible = 34). Figure 4 provides a plot of total absorption scores for each rank of each meta-category. It is evident that, on average, experiencers show higher mean total Trait Absorption for higher frequencies of experience whether it is non-ordinary guidance, non-ordinary perception or moments of mystical knowing.

ANOVA for Total Absorption Score (TAS) Across Ranks of Non-Ordinary Guidance (NOG)

Table 6a details the count, mean, median, standard deviation and range for each of the levels of non-ordinary guidance frequency of occurrence in an experient's lifetime. As can be seen there is a progressive rise in mean TAS score with rising rate of NOG experience over a lifetime.

Figure 4: TAS across experience ranks of meta-categories

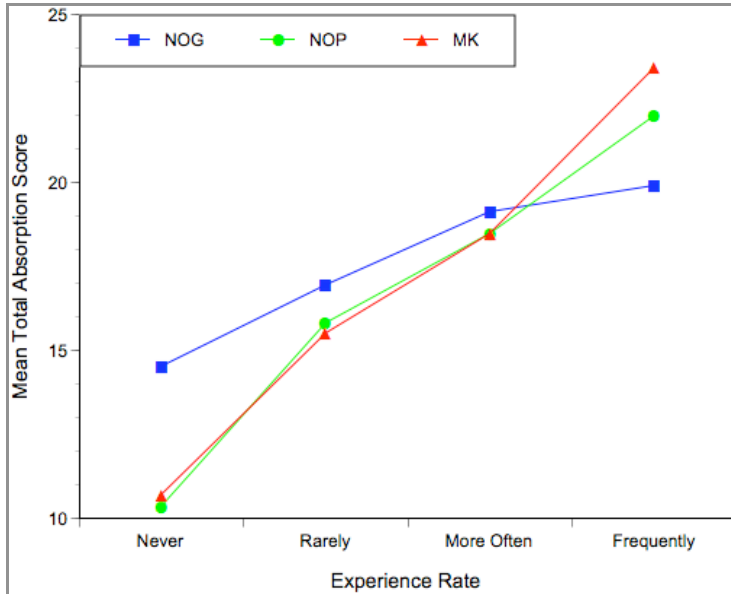


Table 6a—Descriptive Statistics for TAS scores across NOG Experience Ranks

	Count	Mean	Median	Std. Dev.	Min	Max
Never	39	14.54	14	6.597	1	27
Rarely	155	16.97	17	6.935	0	34
More Often	228	19.13	19	7.196	0	34
Frequently	31	19.90	20	6.675	10	33

An analysis of variance test of TAS across rate group reveals a highly significant result ($F(3,449) = 6.98, p = 0.0001$). Table 6b gives the results for a Bonferroni *post hoc* test between within group categories (Keppel, 1982). This test was chosen because of its conservatism and one can see that the significant differences for mean TAS scores lie between the sub-groups 'More Often' and 'Never'; 'More Often' and 'Rarely'; 'Frequently' and 'Never'. As can be seen in Table 5a the lowest and highest experience ranks have many fewer subjects than the middle two ranks. Although this somewhat weakens the strength of the results, it is still strongly suggestive that higher scores on the TAS are more likely to be found in the ranks of higher rates of non-ordinary guidance experience.

Table 6b—Bonferroni Post Hoc Tests for TAS scores across NOG Experience Ranks

	Difference	Probability
More Often—Never	4.59	0.001110
More Often—Rarely	2.16	0.019698
Frequently—Never	5.36	0.009598

ANOVA for Total Absorption Score (TAS) Across Ranks of Non-Ordinary Perception (NOP)

Table 7a provides the count, mean, median, standard deviation and range for each of the frequency levels of non-ordinary perception.

Table 7a—Descriptive Statistics for TAS scores across NOP Experience Ranks

	Count	Mean	Median	Std. Dev.	Min	Max
Never	34	10.35	9	5.581	0	23
Rarely	120	15.83	16	6.216	1	34
More Often	186	18.49	18.5	6.725	0	33
Frequently	113	21.97	22	6.555	2	34

The ANOVA results for the test for differences among TAS means across NOP ranks is highly significant ($F(3,449) = 34.86, p \leq 0.0001$). Here the cell counts are somewhat better distributed ('Never' is still somewhat under represented) and the results stand as more than suggestive with a steady climb in mean TAS score with increasing rank of NOP experience frequency. Bonferroni *post hoc* tests between ranks reveals that all separate from each other statistically significantly. There is little doubt from these result that those who have non-ordinary perceptions more are, on average, higher in overall Personality Trait Absorption (Table 7b).

Table 7b—Bonferroni Post Hoc Tests for TAS scores across NOP Experience Ranks

	Difference	Probability
Rarely—Never	5.48	0.000097
More Often—Never	8.14	0.000000
More Often—Rarely	2.66	0.002935
Frequently—Never	11.62	0
Frequently—Rarely	6.14	0.000000
Frequently—More Often	3.48	0.000050

ANOVA for Total Absorption Score (TAS) Across Ranks of Mystical Knowing (MK)

Table 8a shows the count, mean, median, standard deviation and range for each of the frequency levels of mystical knowing.

Table 8a—Descriptive Statistics for TAS scores across MK Experience Ranks

	Count	Mean	Median	Std. Dev.	Min	Max
Never	37	10.70	10	5.436	0	22
Rarely	136	15.51	15	6.057	0	31
More Often	179	18.46	19	6.609	2	34
Frequently	101	23.42	24	5.984	8	34

Again, as in the last analysis, the ANOVA of TAS means across MK frequency ranks is highly statistically significant ($F(3,449) = 50.10, p \leq 0.0001$) for all ranking groups with a distribution of experients across ranking cells similar to NOP experients (Table 8b). This suggests that there are real

differences in absorptive capacity for experiencers who engage mystical styles of awareness at different overall rates.

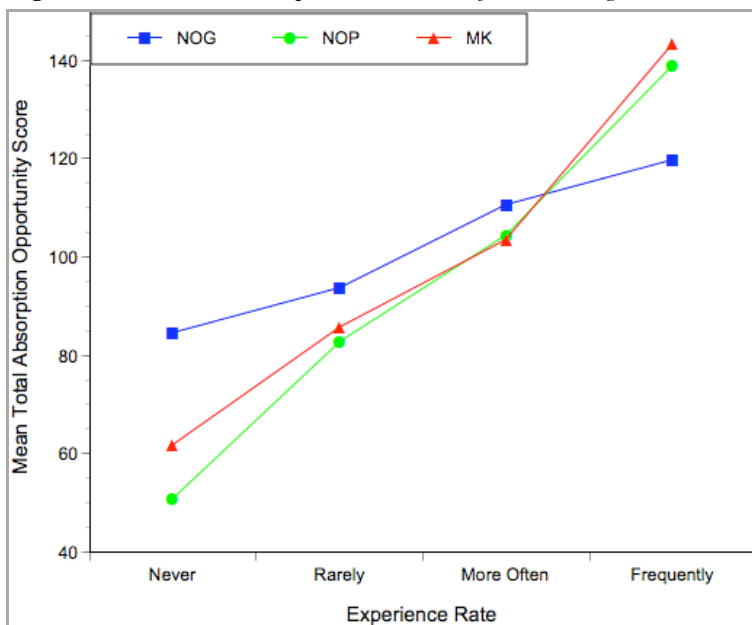
Table 8b—Bonferroni Post Hoc Tests for TAS scores across MK Experience Ranks

	Difference	Probability
Rarely—Never	4.80	0.000223
More Often—Never	7.76	0.000000
More Often—Rarely	2.96	0.000212
Frequently—Never	12.71	0
Frequently—Rarely	7.91	0
Frequently—More Often	4.95	0.000000

Analysis of Total Absorption Opportunity Score—TAOS

The overall mean for the TAOS variable is 103.3 (standard deviation = 57.01) and the median is 92 with a minimum score of 10 and a maximum of 310 (out of a possible 340). Figure 5 reveals a similar pattern for the TAOS variable (compared to the TAS variable) across the four frequency ranks of the three meta-categorical variables. As in the previous analysis section, the NOG meta-category shows the smallest overall differences between ranks and the means of TAOS rise less steeply across those ranks than they do for the NOP and MK meta-categories ranks.

Figure 5: TAOS across experience ranks of meta-categories



ANOVA for Total Absorption Opportunity Score (TAOS) Across Ranks of Non-Ordinary Guidance (NOG)

Table 9a details the count, mean, median, standard deviation and score range for each of the NOG ranks for TAOS. As can be seen there is a progressive rise in mean TAOS scores with rising rate of NOG experience over a lifetime.

Table 9a—Descriptive Statistics for TAOS scores across NOG Experience Ranks

	Count	Mean	Median	Std. Dev.	Min	Max
Never	39	84.54	75	51.905	4	206
Rarely	153	93.93	89	49.411	0	243
More Often	225	110.70	97	59.987	0	310
Frequently	31	119.71	109	64.707	42	294

A test for difference among the rank means (ANOVA) yields a statistically significant result ($F(3,444) = 5.038, p = 0.0019$). *Post hoc* Bonferroni tests for individual ranks (Table 9b) indicate that only the 'More Often' rank separates significantly from the two ranks below it and the 'Frequently' rank shows only a borderline statistically significant difference from the 'Never' rank. Again, the cell numbers are rather small for the first and last ranks, which will likely lead to higher error variance capable of masking any real differences between these ranks and the others.

Table 8b—Bonferroni Post Hoc Tests for TAOS scores across NOG Experience Ranks

	Difference	Probability
More Often—Never	26.16	0.044832
More Often—Rarely	16.77	0.027575
Frequently—Never	35.17	0.056697

ANOVA for Total Absorption Opportunity Score (TAOS) Across Ranks of Non-Ordinary Perception (NOP)

As in the previous analysis of NOP ranks and TAS, there appears to be a strong progressive increase in the means of total Absorption Opportunity scores with increasing levels of non-ordinary perception experiences (Table 10a). A test for difference across ranks of TAOS means yields a highly significant result ($F(3,444) = 36.49, p \leq 0.0001$).

Table 10a—Descriptive Statistics for TAOS scores across NOP Experience Ranks

	Count	Mean	Median	Std. Dev.	Min	Max
Never	34	51.03	43.5	37.387	0	206
Rarely	119	82.75	76	40.494	4	212
More Often	182	104.38	93	49.501	0	244
Frequently	113	139.00	130	65.631	9	310

As in the previous test of TAS across NOP ranks, the Bonferroni *post hoc* tests for significant differences between individual ranks reveals significant differences between all sets of pairs (Table

10b) thus indicating a robust relationship between mean TAOS level and rank of NOP experiences type.

Table 10b—Bonferroni Post Hoc Tests for TAOS scores across NOP Experience Ranks

	Difference	Probability
Rarely—Never	31.72	0.009308
More Often—Never	53.35	0.000000
More Often—Rarely	21.63	0.002276
Frequently—Never	87.97	0
Frequently—Rarely	56.25	0.000000
Frequently—More Often	34.62	0.000000

ANOVA for Total Absorption Opportunity Score (TAOS) Across Ranks of Mystical Knowing (MK)

Again, analysis of MK ranks demonstrates a similarly robust relationship for the MK experience types as for the NOP types for mean TAOS across ranks ($F(3,444) = 32.78, p \leq 0.0001$; See Tables 11a) with strong to very strong statistical significance in all *post hoc* tests of pairs of means except for the difference between 'Rarely' and 'Never' which shows only a borderline significance (Table 11b).

Table 11a—Descriptive Statistics for TAOS scores across MK Experience Ranks

	Count	Mean	Median	Std. Dev.	Min	Max
Never	37	61.70	56	41.066	0	206
Rarely	136	85.71	78.5	44.386	0	201
More Often	178	103.48	94	52.624	9	249
Frequently	97	143.58	135	62.305	42	310

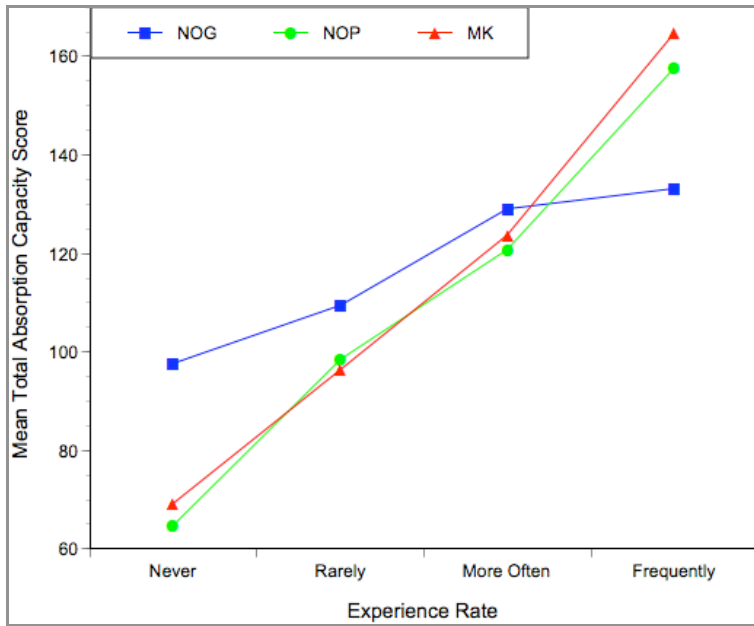
Table 11b—Bonferroni Post Hoc Tests for TAOS scores across MK Experience Ranks

	Difference	Probability
Rarely—Never	24.01	0.073900
More Often—Never	41.77	0.000060
More Often—Rarely	17.76	0.016270
Frequently—Never	81.87	0.000000
Frequently—Rarely	57.86	0.000000
Frequently—More Often	40.10	0.000000

Analysis of Total Absorption Capacity Score—TACS

The third Absorption variable, Total Absorption Capacity, also falls within acceptable limits for being a continuous and normal, with an overall mean of 120.0 (standard deviation = 59.95), a median of 115, a minimum score of 0 and a maximum of 324 (max possible = 340). Again, the TACS variable presents a similar pattern of progressive rise across experience ranks (Figure 6) as seen in the previous two Absorption variables with the NOG meta-category showing the smallest differences across ranks.

Figure 6: TACS across experience ranks of meta-categories



ANOVA for Total Absorption Capacity Score (TACS) Across Ranks of Non-Ordinary Guidance (NOG)

The analysis of the TACS variable across the ranks of NOG experience types shows a strong overall statistical significance in an analysis of variance ($F(3,444) = 5.81, p = 0.0007$; See Table 12a). Also like previous tests with NOG as a categorical variable, two group differences show significance with an additional one revealing only borderline significance in Bonferroni *post hoc* tests (Table 12b).

Table 12a—Descriptive Statistics for TACS scores across NOG Experience Ranks

	Count	Mean	Median	Std. Dev.	Min	Max
Never	39	97.62	85	55.701	10	217
Rarely	153	109.50	107	53.801	0	244
More Often	225	129.18	121	61.842	0	310
Frequently	31	133.10	120	66.143	48	324

Table 12b—Bonferroni Post Hoc Tests for TACS scores across NOG Experience Ranks

	Difference	Probability
More Often—Never	31.56	0.012950
More Often—Rarely	19.68	0.009319
Frequently—Never	35.48	0.074448

ANOVA for Total Absorption Capacity Score (TACS) Across Ranks of Non-Ordinary Perception (NOP)

In this analysis TACS produces a very strong statistical significance ($F(3,444) = 36.65, p \leq 0.0001$) with a steep rise of means across experience ranks (Table 13a). Similarly, Bonferroni *post hoc* tests for paired, between group differences in means—TACS across NOP ranks—show strong significance for differences between all pairings (Table 13b)

Table 13a—Descriptive Statistics for TACS scores across NOP Experience Ranks

	Count	Mean	Median	StdDev	Min	Max
Never	34	64.97	55	41.230	0	206
Rarely	119	98.54	95	43.154	10	218
More Often	182	120.83	115.5	53.513	0	269
Frequently	113	157.74	151	66.376	8	324

Table 13b—Bonferroni Post Hoc Tests for TACS scores across NOP Experience Ranks

	Difference	Probability
Rarely—Never	33.57	0.008645
More Often—Never	55.86	0.000000
More Often—Rarely	22.29	0.002945
Frequently—Never	92.77	0
Frequently—Rarely	59.21	0.000000
Frequently—More Often	36.91	0.000000

ANOVA for Total Absorption Capacity Score (TACS) Across Ranks of Mystical Knowing (MK)

And, finally, the means of the total Absorption Capacity scores for each rank of Mystical Knowing increase with increasing rank of experience frequency (Table 14a) in a similar manner to the previous MK analysis. The overall ANOVA is highly statistically significant ($F(3,444) = 44.06, p \leq 0.0001$) as are all the paired *post hoc* tests of the means of all the MK ranks. Only one test—between the 'Rarely' and 'Never' ranks—shows a probability of a Type 1 error as high as 0.031 whereas most are less than 0.0001 (Table 14b).

Table 14a—Descriptive Statistics for TACS scores across MK Experience Ranks

	Count	Mean	Median	Std. Dev.	Min	Max
Never	37	69.19	65	39.010	0	206
Rarely	136	96.65	89.5	45.411	0	217
More Often	178	123.84	117.5	54.711	8	265
Frequently	97	164.98	157	62.497	48	324

Table 14b—Bonferroni Post Hoc Tests for TACS scores across MK Experience Ranks

	Difference	Probability
Rarely—Never	27.47	0.031083
More Often—Never	54.65	0.000000
More Often—Rarely	27.18	0.000048
Frequently—Never	95.79	0
Frequently—Rarely	68.33	0
Frequently—More Often	41.14	0.000000

Depression and Anxiety

Analysis of Self-Reported Treatment for Mental Illness and Experience Types

Cross-tabulations and associated Chi-Square statistics were calculated for each of the three experience meta-categories (NOG, NOP and MK) with a questionnaire item that queried whether the respondent had ever been medically treated for a 'mental illness'. The yes/no response to the item on

treatment formed a 2X4 table with the four ranks of each of the three experience meta-categories. In the case of Mystical Knowing a significant Chi-Square statistic for dependency was obtained (CS = 10.39, 3 df, $p = 0.0155$, N = 449 with one cell < 5). Those answering 'yes' to treatment for mental illness and reporting the highest rank of MK experiencing are over-represented in that cell by a ratio of 1.8:1. However, it must be added that in spite of this over-representation by a relatively small portion of the experient group (3.8%), 82.9% of those denying that they had had medical treatment for mental illnesses were, in fact, MK experiencers. None of the other meta-categories of spiritual experiencing showed a statistically significant dependency relationship with self-reported treatment for mental disorder.

Analysis of Self-Evaluated Depression and Anxiety and Experience Types

A cross-tabulation (3X4) of ranks of frequency of self-evaluated depression and ranks of frequency of NOP experiences yielded a strongly significant Chi-Square statistic (16.98, 6 df, $p = 0.0093$, N = 448 with one cell < 5). Those reporting the highest frequency of depressive episodes ('More Often') and the highest NOP frequency rank ('Frequently') are over-represented by a ratio of 1.7:1. Despite this 'bulge' in that cell, 89.5% of those claiming to never have had a bout of depression report some kind of NOP experience and they represent more than a third (34.3%) of the whole sample answering both items. Taken together with those who report rare episodes of depression and all ranks of NOP experiences, 77.8% of the total sample is accounted for.

Experiencers who report episodes of Mystical Knowing also show a highly significant Chi-Square statistic (28.70, 6 df, $p \leq 0.0001$, N = 448) for dependency when their responses are cross-tabulated with their reports of self-perceived rates of depression. Again, the cell most over-represented is the highest in both MK experience rate and frequency of depression with a ratio of almost 2:1. Nevertheless, those reporting no or rare episodes of depression and all levels of MK experiencing account for 77.9% of the respondents given in this cross-tabulation.

A similar pattern of dependency is seen when NOP and MK experience ranks are each cross-tabulated with rate ranks of self-perceived bouts of anxiety. NOP taken across ranks of anxiety episodes yields a statistically significant dependency relationship (Chi-square = 31.04, 6 df, $p \leq 0.0001$, N = 447 with one cell < 5) with the cell for the highest rank of each variable over-represented by a ratio of 1.6:1. Those having bouts of anxiety rarely or not at all and who are also NOP experiencers account for 74.1% of the sample. In the case of MK experiencers the cross-tabulation with ranks of anxiety yields a strong statistical significance (Chi-square = 27.76, 6 df, $p = 0.0001$, N = 447 with one

cell < 5), but the ratio of the number of respondents to the expected value in the cell for the highest ranks of both variables is somewhat less over-represented than in the previous case (1.4:1).

DISCUSSION

Although this research is not based on a random sample and the age range is almost exclusively young adult, some interesting trends can be seen throughout the analysis that are suggestive of what might be found if a random survey were to be conducted of the broader population. Nevertheless, it is immediately apparent that there is an overall very high participation rate in the meta-categories of spiritual and non-ordinary experiencing as defined in the methodology section of this paper (90+% across all three meta-category experience groups of Non-Ordinary Guidance, Non-Ordinary Perception, and Mystical Knowing). The strong showing of first-time spiritual and non-ordinary encounters in both pre-adolescence as well as adolescence throughout the analysis strongly suggests that children have active spiritual lives and that their experiences remain significant markers in their lifetimes. As also indicated in the analysis, this sample is drawn from a population that reports very high levels of participation in religious life and within their communities there is probably a high tolerance for certain kinds of direct, spiritual knowing. In fact, some experiences—particularly any encounters considered to be contact with of guidance from a divine source—are highly valued and likely to be a cultural indicators sought after.

The analysis also shows that this current sample is overwhelming comprised of women, reflecting the population of the college from which the survey was drawn. Within the sample, however, women are more likely to report higher rates of occurrence of Non-Ordinary Guidance (NOG) type experiences than men, but gender differences are minimal across occurrence rate categories for Non-Ordinary Perception (NOP) experiences. Reversing the trend seen in the NOG meta-category, men tend to appear more frequently in the higher levels of experiencing in the Mystical Knowing (MK) meta-category. Experiences of being guided by an ontological 'other' may be tied to a self-concept in which one sees oneself as more closely bound to the nexus of social and religious forces and pressures that surround an individual's life. The gender difference in experiences of being guided may be due, in fact, to differences in the ways women and men see themselves in relation to their social contexts. The slightly higher rate of mystical experiencing demonstrated by men in this sample is more difficult to explain, on the other hand. The effect observed still may have something to do with gender differences regarding social connectedness in that mystical and related experiences can tend to represent spiritual knowing that commences from being more alienated from one's social network.

Nelson's (1989b, 1991) earlier studies of spiritual experiencing reveal that alienation and stress do play a role as significant triggers in mystical and related non-ordinary experiencing. So, higher rates of occurrence among young men may be indicative of stress related social isolation differences between the genders.

Looking at the results for the analysis of the Absorption data gathered as part of the survey, it is clear that experients from all meta-categorical types show increased levels of this trait with increasing frequency of engagement in various forms of spiritual experiencing. Absorption is a style of attentional deployment and engagement that tends to include a more intense intrapersonal awareness as well as a more engaged attention to externals. It is probably the personality trait basis for the style of being-in-the-world that is known as 'flow' (Csikszentmihalyi, 1988), which has been shown to be connected to creativity and the discovery of alternative epistemic frames in adults. Children who would score high in Trait Absorption will likely manifest a style of being-in-the-world that will be discouraged by teachers and parents who tend to more highly value outward-directed activity like social engagement and intellectual achievements. For example, they may at times be perceived as "day dreamers" or lost (absorbed) in some project or activity and therefore appear out of phase with the pace and style and performance expectations of normal classroom activity. Traditionally, there is not a great deal of positive recognition or reward for the more inward, absorptive flow style of being-in-the-world. This intolerance leads to the application of continued pressure in opposition to the natural inclination of children manifesting this style and, in the long run, will certainly work against those with this kind of innate 'spiritual capacity'. However, there are explicit attempts to welcome more absorptive states of mind into schools as a natural part of the learning process (Hart, in press).

Many researchers and helping professionals believe that there is a relationship between mystical experiencing and mental illness (Committee on Psychiatry and Religion, 1976). It is almost a cliché that one often will experience a "dark night of the soul" as a kind of mental crisis preceding a spiritual breakthrough. The results reported here suggest some kind of a dependency relationship between mystical experiencing and psychological disorder as observed in the occurrence of higher rates of anxiety and depression amongst the highest ranks of experience in our sample as well as higher than expected treatment rates for mental illness among the highest rates seen in MK experients. Taken in the context of the Absorption findings a partial mechanism can be posited. Anxiety and depression might be more prevalent among those who find their more absorptive, inward styles of being-in-the-world under on-going pressure away from a natural, inward style and towards a more social, extrovert and goal-oriented life.

However, this social demand may affect the more extreme cases, only, as there still appears to be a large majority who may not experience this as a corrosive pressure (83% in our sample responding to the MK items positively have not been treated for mental illness). In many instances absorptive states are self-reinforcing thereby partially countering the pressure against them. However, those who experience higher rates of MK and NOP type experiences also may have a greater natural emotional sensitivity and lability, which in a non-supportive environment might leave a non-ordinary experient feeling anxiety that eventually leads to on-going depression as a result of finding little relief from constant unease and growing social isolation. The details and exact mechanism underpinning the relationship among emotional lability, Absorption and frequent spiritual experiencing remains to be explored in future research.

In addition to the very high overall rate of respondents (90+%) reporting recollections of some type of spiritual and/or non-ordinary experiencing, 24 to 40 percent report that their first encounters occurred in childhood prior to adolescence. Although this pre-adolescent response rate is well in line with earlier surveys of the adult population, it is interesting to note that when the entire under 18 year old section of our sample is considered, then 82.8 percent report one or more non-ordinary guidance experiences, 84.6 percent recount at least one non-ordinary perception event, and 90.0% indicate having had one or more experiences of mystical knowing. By itself this has significant implications for developmental theory and, in turn, the practice of education, psychotherapy, parenting and early religious and character education. Further, the range of these experiences underscores the diversity of expression of alternate epistemic frames of knowing occurring in children—perhaps pointing to the existence of an innate spiritual temperament as the source. The results of this study suggest that children have an array of spiritual experiences that may shape their worldviews and provide a foundation for the emergence of character traits. If these first results were to stand up to a larger, random survey that better represented age in the normal population, we might need to rewrite the book on developmental psychology to give what are often profoundly life-altering experiences a more prominent place as important early influences in life-span development.

The intensity and epistemic disjunctions associated with these kinds of spiritual and non-ordinary experiences not only may shape a child's emerging worldview, but such encounters are more likely to foster the formation of a sense of 'interconnectedness' among people and all life—a kind of ecological consciousness—ultimately leading to feelings and perceptions that seed the development of a more expansive and connecting personality. Thus, we might understand this kind of spiritual experiencing in childhood and adolescence as a catalyst for the formation of character traits such as empathy or compassion. Once a child's awareness is opened to a larger 'picture' of self and other, this may invite

ponderings about ontological, metaphysical, epistemological and moral issues at a deep personal level that may otherwise not be addressed until later in life, if at all. For example, a recognition of interconnection or an experience of "deep empathy" (Hart, 2000) may be a foundation for an ethic of care and concern for others just as a direct non-ordinary perception may inform notions about knowing and what is possible in terms of interpersonal communication.

SUMMARY AND CONCLUSIONS

Beyond the widespread occurrence of spiritual experience in childhood as revealed in our data, we are suggesting that different individuals may be prone to having different kinds of experiences. In addition, this spiritual diversity may suggest the existence of differing spiritual natures or styles. These traditionally untrained ways of knowing and being—such as the capacity for wonder, awe, deep empathy, interconnection and so forth—may be foundational for socially responsible character development and may provide the basis for constructive motivation and positive direction throughout an individual's lifespan. This research also suggests that underlying this character development there may be particular innate, temperamental characteristics—such as Trait Absorption—that provide the neuropsychological basis for spiritual and non-ordinary perception and knowing. It would be interesting to explore whether the academic divide over the reality and efficacy of non-ordinary and spiritual knowing is connected to differences in temperamental and characterological traits of the combatants.

The prevailing view that children are inherently unspiritual and have little capacity for spiritual knowing and expression—and are even "ape-like" in their cognitive development (Wilber, 1996)—has been tied to a belief that the forging and molding of character proceeds from the 'outside' 'in' with little consideration of children's spirituality as possibly emerging from the 'inside' 'out'. Given the implications of the present research, the question begging to be asked is what and whom are we inadvertently ignoring or repressing by maintaining our current psychological and religious understanding of children. If children have spiritual capacity and experiences as this study suggests, the task of working with them may shift somewhat to understanding their insights, spiritual proclivities, and spiritual style in order to appreciate and work more directly with the process of their emergent ways of knowing and being. Perhaps in so doing, we might learn that children have something to teach adults about living a more attuned life. A revised approach to educating children would invite an ongoing dialectic between the 'outside' adult view of "the good life" and the child's direct and emergent knowing as given from the 'inside'. Such an approach to personal development and education might possibly facilitate pathways toward the manifestation of greater wisdom in adult life.

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Notes

'This table shows MK Item 1 (columns—'seeing the world as unreal') cross-tabulated with item 62 (rows) from the questionnaire ("Have you ever been medically treated for a 'mental illness' or a 'nervous breakdown'?"). Although the highest percentage responding positively (42.5%) claim never to have this experience it is less than the expected value whereas those claiming the experience at a rate of "More often" appear at twice the expected rate.

	Never	Once only	2-3 times	More often	total
Yes	17	3	7	13	40
	42.5	7.50	17.5	32.5	100
	7.30	10	12.1	20.6	10.4
	4.43	0.781	1.82	3.39	10.4
	24.2708	3.12500	6.04167	6.56250	40
No	216	27	51	50	344
	62.8	7.85	14.8	14.5	100
	92.7	90	87.9	79.4	89.6
	56.2	7.03	13.3	13.0	89.6
	208.729	26.8750	51.9583	56.4375	344
total	233	30	58	63	384
	60.7	7.81	15.1	16.4	100
	100	100	100	100	100
	60.7	7.81	15.1	16.4	100
	233	30	58	63	384

table contents:

- Count
- Percent of Row Total
- Percent of Column Total
- Percent of Table Total
- Expected Values