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Adam Stasko  
*New Mexico State University*

Satya P. Rao  
*New Mexico State University*

Amy Pilley  
*New Mexico State University*

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# Spirituality and Hallucinogen Use: Results from a Pilot Study among College Students

*Adam Stasko Satya P. Rao Amy Pilley*

New Mexico State University  
Las Cruces, NM, USA

Anthropologists have studied the use of hallucinogens as a spiritual tool by indigenous populations since the turn of the 20th century. However, literature is sparse in describing use by non-indigenous populations. Using a study population of students from a university in the Southwest United States, the current study investigated the spiritual development and meaning that college students place on their use of hallucinogenic substances. The spiritual framework developed by Love and Talbot (1999) and a transpersonal anthropological approach were used to guide the study. Semi-structured interviews were conducted with each participant. Results indicated that participants used hallucinogens for both spiritual and recreational purposes with hallucinogen use playing an important role in their continued exploration of spirituality, which was an integral part of their lives. This pilot study could serve as a primer for future research on the role of hallucinogen use in the spiritual experiences of contemporary U.S. college students, and other non-indigenous Western populations.

*Keywords: hallucinogens, spirituality, college students, non-indigenous, recreational use*

Hallucinogenic substances have played an important role in human experience since hunters and gatherers first discovered their properties. Consumption remnants of the hallucinogenic peyote cactus have been found in caves in northern Mexico dating back to 5000 BCE (Terry, Steelman, Guidlerson, Dering, & Rowe, 2006). Scholars have suggested that geometric rock art found in France and Germany dating to the Upper Paleolithic period may have been created under the influence of hallucinogenic drugs (Lewis-Williams & Dowson, 1988). Hallucinogens have been used as a spiritual tool for the exploration of consciousness by various cultures throughout history. In fact, many naturally occurring substances such as peyote, psilocybin, or mescaline have been known to have been used in many cultural and religious ceremonies and contexts (Ruck, Bigwood, Staples, Ott, & Wasson, 1979).

Despite early indications that hallucinogens have been used as a spiritual tool for the exploration of consciousness by various cultures, few studies have explored this relationship particularly among college students, young people, and ethnic minorities. Participants in a more recent but limited number of studies have indicated that they have had enhanced

spiritual experiences while under the influence of psychotropic substances (Doblin, 1991; Griffiths, Richards, Johnson, Mccann, & Jesse, 2006, 2008). In 2006, a study was published with all of its 36 participants reporting that they had experiences that held personal meaning and spiritual significance under the influence of psilocybin. They also reported positive changes in attitudes and behavior (Griffiths et al., 2006). A follow-up study, conducted fourteen months later, found that almost two-thirds of the participants reported that their psilocybin experiences ranked among the five most spiritual events in their lives (Griffiths et al., 2008). Recent studies (e.g., Arria et al., 2008) have suggested that participants began using hallucinogens in college, versus earlier in their lives. In fact, Arria et al. (2008) found that exposure to hallucinogens during the first two years of college increased the possibility of lifelong hallucinogen use. Sussman, Skara, Rodriguez, and Pokhrel (2006) explored the relationship between two different dimensions of spirituality in an ethnically diverse population of adolescents reporting drug use (cigarettes, alcohol, marijuana, hallucinogens, and stimulants) over a one-year period. Interestingly, the authors found that drug-use-specific spirituality was positively predictive of cigarette smoking and hallucinogen use, providing

some evidence of use of drugs such as hallucinogens as a spiritual practice among this group. Resor and Cooper (2010) examined the use and correlates of club drugs such as MDMA (ecstasy), ketamine, GHB, and methamphetamines among Hispanic college students on the Texas-Mexico border. In the past these drugs have been primarily used by Non-Hispanic Whites but their usage has been on the rise among ethnic minorities (Lucker, 2010; NDIC, 2009; Novoa, Ompad, Wu, Vlahov, & Galea, 2005; Ompad, Galea, Fuller, Phelan, & Vlahov, 2004; Rawson, Gonzales, & Brethen, 2002).

Following a literature review of over 35 texts written on spirituality, Sandra Estanek (2006) concluded that spirituality can be considered its own discourse and that no one definition of spirituality can be used to define this discourse. Estanek lists five parameters that can be used to describe the discourse. First is the parameter of spirituality defined as spiritual development, which is supported by a definition of spirituality proposed by Patrick Love and Donna Talbot (1999). Love and Talbot argued that “the quest for spiritual development is an innate aspect of human development, that spiritual development and spirituality are interchangeable concepts and that openness is a prerequisite to spiritual development” (p. 364). Love and Talbot offered five propositions that form their definition of spiritual development, in which spiritual development involves: 1) an internal process of seeking personal authenticity, genuineness, and wholeness as an aspect of identity development; 2) the process of continually transcending one’s current locus of centrality; 3) developing a greater connectedness of self and others through relationships and union with community; 4) deriving meaning, purpose, and direction in one’s life; and 5) an increasing openness to exploring a relationship with an intangible and pervasive power or essence that exists beyond human knowing. Elizabeth Tisdell (2003), supporting the idea of spirituality as being defined by spiritual development, proposed seven parts to her definition: 1) spirituality and religion are not the same, but for many people they are interrelated; 2) spirituality is about an awareness and honoring of wholeness and the interconnectedness of all things through the mystery of a higher power or being; 3) spirituality is about meaning-making; 4) spirituality is always present in the learning environment; 5) spiritual development constitutes moving toward greater authenticity or to a more authentic self; 6) spirituality is about how people construct knowledge through

largely unconscious and symbolic processes; 7) spiritual experiences most often happen through surprise.

A study launched in 2003 by the UCLA Higher Education Institute called “Spirituality in Higher Education” (Astin, Astin, & Lindholm, 2008) assessed the spirituality of 115,000 undergraduate students on 136 college campuses across the country. Evidence showed that students’ religiosity declined steeply over the course of their college years, while their spirituality grew. As freshmen, 43.7% of students in the study reported frequent attendance of religious services. In the follow-up study of the same students, now juniors, 25.4% reported frequent attendance at religious services. As freshmen, 48.7% of the students reported “attaining inner harmony,” while 62.2% did as juniors. In addition, 41.8% reported “integrating spirituality in my life” their freshman year while 50.4% did in their junior year (O’Keefe, 2008, p. 1). Religiosity decreased while spirituality increased throughout the college experience among these students. They became more tolerant of other individuals’ spirituality, their spiritual beliefs and practices, and believed less in absolute truths when it came to spirituality (O’Keefe, 2008).

Almost 40% of college students in the Astin et al. (2008) study reported that they struggled occasionally with their spiritual beliefs, while 18% reported that they struggled frequently with their spiritual beliefs. There appeared to be an association between struggling frequently with spiritual beliefs and experimenting with ways to achieve inner peace, and the desire to find answers for many of the philosophical questions of life (Bryant & Astin, 2008). Accounts posted on the website erowid.org, which is dedicated to exploring the relationship between human experience and psychoactive use, suggest that some college students see hallucinogens as a tool for spiritual development (erowid, 2008). Despite such existing evidence, little scholarly research has been done on this issue and with this population.

The current study examined spirituality and hallucinogen use among contemporary non-indigenous participants. Unlike most previous studies, a transpersonal approach was used to investigate and focus on the spiritual meaning that college students place on their use of hallucinogenic substances through a small sample of convenience at a university in the Southwestern United States. Participants in this study had a unique generational and cultural experience that could be considered when examining both the

basic trends of drug use in this population as well as the purpose behind drug use. These contemporary college students' lives have been shaped by wars, global recession, deteriorating social and economic conditions along the U.S./Mexico border, and struggles to work while going to school. In addition to national cultural concerns, students have concerns at the local level as well. The town where the university is located is roughly fifty miles north of Ciudad Juarez, Mexico. The U.S./Mexico borderlands have been plagued by violence related to drug trafficking and other crimes. The drug battles have become increasingly violent as drug cartels and the Mexican military battle for control. Families and individuals in this border region travel across the U.S./Mexico border, often times living in one country and working or going to school in another. Additionally, in recent times there has been an influx of a large and rising number of retired citizens as well as military and border patrol personnel into the area, which has impacted the culture and the lifestyle of university students in the city.

#### **Method**

Permission was received from the university Institutional Review Board (IRB) to conduct the study. A waiver was granted for the required informed consent form due to the small sample size and the nature of the study—a pilot study. Verbal recorded consent was requested from each participant without revealing his or her real name. Explanation of the nature of the study, potential risks involved in participation, and the opportunity to discontinue participation at any time were also stated and recorded. Participants were recruited through fliers that were distributed around the university campus, through presentations in two undergraduate classes, and by word of mouth. The study sample was a convenience sample and no willing participants were turned away. Interviews were conducted in a private office on campus and lasted between 40 and 60 minutes. A questionnaire, approved by the university IRB, was used to guide the semi-structured interviews and probing questions were included when necessary for clarification and/or elaboration from participants.

Transpersonalism, the perspective adopted for this pilot research, “labels a movement in science toward acknowledging the significance of experiences beyond the boundaries of ordinary ego-consciousness” (Laughlin, McManus, & Shearer as cited in Laughlin, 1988, p. 31). Transpersonal anthropology deals with the relationship between altered states of consciousness,

including those associated with meditation, prayer, and trance to the ingestion of hallucinogenic substances, and mystical or spiritual experiences (Winkelman, 2000). The methods in transpersonal anthropology are fundamentally the same as any other ethnographic field. The main difference is that topics center on the relationship of symbols and/or mystical experiences. Another notable difference is the greater emphasis on participation (Laughlin, 1994; Young & Guy-Goulet, 1994). Although the current study did not involve participation, it included and was guided by the other essential aspects of transpersonal anthropology, such as taking seriously the perspectives of the people with whom research is conducted and seeking to make spiritual experiences valid in the context of Western thought. Western thought is heavily biased toward empirical and positivist premises, which explain spiritual elements as being the result of naturally occurring phenomena. However, if reality is culturally constructed, then what may appear to be an extraordinary experience in the West may be viewed as normal in another culture (Young & Guy-Goulet, 1994).

#### **Biographies of Study Participants**

**Participant 1.** Alan was a senior who claimed no religious affiliation. He indicated he had a rich spiritual life. The D.A.R.E. (Drug Abuse Resistance Education) program first piqued his interest in hallucinogenic drugs while he was in middle school. The first hallucinogen Alan experimented with was marijuana, followed by psilocybin mushrooms, which he used in high school. During college, Alan used hallucinogens “more regularly” and tried LSD and peyote. He reported varying frequency of hallucinogen use, and that his experiences have been mostly positive.

**Participant 2.** Alice was a Native American first year graduate student. She claimed no religious affiliation, but had a Christian upbringing. Alice reported that she was exploring her spirituality, but that she followed her tribe's traditional beliefs during trying times in her life. Her hallucinogen use ranged from two to six times a year. The first experience Alice had was with marijuana at the age of twelve, and she tried mushrooms at seventeen years of age. Both of these experiences were for recreational use only. Consuming hallucinogens for spiritual insights came later for Alice.

**Participant 3.** Brian was a Hispanic junior, and a practicing Roman Catholic. He was raised Catholic and stated he was a very spiritual person. Brian's interest

in hallucinogens began with hearing some people talk about their experiences. After asking friends about hallucinogens, they introduced him to hallucinogenic mushrooms. Brian said his family never condemned his hallucinogen use. He had used marijuana, mushrooms, and LSD. He described his first three hallucinogen experiences as recreational. Brian indicated that his experiences became more insightful after a friend taught him how hallucinogens could be used as a tool for personal insight.

**Participant 4.** Beth, a Caucasian junior, was raised a Roman Catholic. By seventh grade she no longer affiliated herself with Catholicism and by the age of 16 she was an atheist. Through researching the flower-child movement of the 1960s, Beth indicated she had read about the role hallucinogens played in the movement and had become fascinated by them. She first tried marijuana, then mushrooms. Beth described her experiences with hallucinogens as being positive.

**Participant 5.** Carl was a Native American junior. He continues to follow his tribe's religious traditions and practices. Deeply spiritual and connected to his society, he stated that he drew much of his strength from his tribe. Carl's sister introduced him to hallucinogens and he tried marijuana for the first time in seventh grade. While attending a public high school during his senior year, he began to experiment with other hallucinogens including mushrooms. Carl indicated he had tried marijuana, mushrooms, salvia, peyote, and morning glory seeds. Marijuana and mushrooms were his favorites because they allowed him to open up with friends. Carl stated that he smoked marijuana on most days and had consumed mushrooms eight times the previous semester. Carl described his experiences with hallucinogens as mostly positive.

**Participant 6.** Carrie was a Native American first year graduate student. She claimed no religious affiliation but has participated in some of the ceremonies of her tribe and expressed interest in Buddhism. She considered herself fairly spiritual and as being interested in studying spirituality. Carrie has never belonged to an organized religion. D.A.R.E. piqued her curiosity in hallucinogens. She tried marijuana shortly after going through the program, and at 16 tried LSD. Carrie claimed to consume hallucinogens a few times every year and had used marijuana, mushrooms, LSD, 2C-B, and peyote. She described her use as mostly recreational, but stated that her peyote experiences were also spiritual.

**Participants 7 and 8.** Debbie and Dylan requested to be interviewed together. They had been good friends for four years and normally discussed their hallucinogen experiences with each other.

**Participant 7.** Debbie was a Caucasian who believed in a higher power and was raised as a Christian, but became skeptical of organized religion as a teenager. She indicated that she had always been interested in Native American spirituality because she liked how it respected the natural world. Debbie indicated she had used mushrooms, to which she was introduced by a group of friends. She shared that she had used mushrooms once or twice a year and that her experiences have been mostly positive.

**Participant 8.** Dylan was Caucasian. He did not label his spirituality, viewing the world as a connected and spiritual place, and looking to science for some of his beliefs. Dylan first heard of hallucinogens in elementary school, but indicated that at that time he did not understand their significance. When he was nineteen years old, a roommate introduced him to mushrooms. He has had positive and negative experiences, but added that most of his experiences have been productive. Dylan further added that "they have created insight or self-reflection." He indicated that he had taken mushrooms sporadically, one year doing them six times.

### Results

The current study found that both spirituality and hallucinogen use played important roles in the participants' lives. Participants' responses indicated that: 1) spirituality was an integral part of their lives; 2) hallucinogen use continued to play a role in participants' spiritual lives; and 3) hallucinogens were used for both spiritual and recreational purposes often beginning with recreation and then transcending onto spiritual purposes.

In response to questions about spirituality and its place in participants lives—"Please tell me about your spiritual life. What are some of your core beliefs/tenants/practices? How would you characterize your spirituality?"—seven of the eight participants described their spiritual lives as very important, meaning a great deal or everything to them, or providing a sense of purpose. Carrie responded to these series of questions by saying that her spiritual life was "fairly significant." Two questions were asked in each interview to explore the effect that hallucinogen use had on participants' spirituality. These were: 1) What role has your hallu-



cinogen use played in your spiritual development? and 2) How have your beliefs and practices changed as a result of your hallucinogen use? Three participants reported hallucinogen use having a strong influence on their spirituality. Alice stated, "I think it has been pretty huge. It has really helped me deal with some of these [problems]. It's probably some of the only therapy that I have been doing. Well, I have been doing therapy off and on for different things, but I am definitely leaning toward crediting these hallucinogenic experiences as being the most powerful. They just kind of catapult me to that next state of consciousness." Beth shared that "[Hallucinogens have] a lot to do with it. I don't think that I would be able to feel the way that I do, what I feel like when I'm experiencing God as much if I didn't do hallucinogens." Carl viewed his hallucinogen use as a tool for spiritual awareness and development with the statement, "I really feel like it has taken me through germination. I guess I'm like this little seed that needs a little preparation. And like all those things, all those hallucinogens that I have taken have just been prepping me for what stage is going to come next. Like it's powerful medicine and there are some things in life that people have forgotten and would not believe 'cause it's too odd. But Grandma 'shrooms would show them these things right now if they sat down and listened and opened up. It helps some who are maybe looking for it and others who may just be hiding."

Other participants reported hallucinogens having an influence on their spirituality, but not to the same degree or in the same manner as the aforementioned three participants. Carrie said the first time she took peyote was "kind of like internally seeing the connection between my head and heart and from there I could follow that connection." Alan responded by stating "[Hallucinogens] have made me think that like, wow, my normal conscious brain works in such a different way that there has got to be all kinds of other abilities that we haven't tapped into that we can somehow experience those during psychedelic experiences. [These experiences] led me to question whether those things are here for a purpose. Like, were they put here on Earth for a reason? If you want to believe in the Christian creator God then obviously marijuana and those mushrooms grow naturally. Why would those things be here otherwise?" Debbie said that "[Hallucinogen use] has opened my eyes to the wider picture. Like not focusing on just me, but being open to the wider picture such as keeping harmony and balance in my life." Dylan shared, "There

have been some experiences where I have felt something that's outside anything that I would find in description. I could only describe it as being connected with something more than just myself. I have also had a lot of reflective moments that have made me realize things about myself and the ways I interact with people around me." Brian admitted seeing a connection between his spirituality and hallucinogen use, but had not experienced it to the same extent that other participants had. "I was very spiritual from an early age and I was introduced to hallucinogens at a later age but more recently, you know, just by seeing how other people use drugs especially with this class I am taking now I can see how hallucinogen experiences effect people and I take that into consideration now. Like it effects your mind and obviously my spiritual life is a part of my mind so it's going to be in there and I would say it is sort of like a catalyst. I want to maintain my religion and my religious beliefs but I have had newer understandings that have been caused by these hallucinogens. They have caused me to think more about people or animals or about the way the physical or spiritual environments interact."

Results from the interviews also highlighted three aspects of spiritual development originally proposed by Love and Talbot (1999) as part of their spiritual development framework that were impacted by participants' use of hallucinogens. These three aspects were: 1) Sense of direction or purpose in life; 2) Feelings of connectedness with other people; and 3) Openness to a higher power.

### **Hallucinogen Use and Participants' Sense of Direction or Purpose in Life**

Researchers tend to agree that spirituality involves a search for meaning, direction, and/or purpose in life (Love & Talbot, 1999; Estanek, 2006; Astin et al., 2008). Responses to the question "How have your hallucinogen experiences affected your sense of direction or purpose in life?" varied and could be subdivided into four categories: 1) Caused participants to question their purpose in life; 2) Helped guide or direct them in their lives; 3) Had an indeterminate effect; and 4) Had no effect.

Three participants indicated that hallucinogen use had caused them to question their purpose in life. Alan shared, "I would say that [hallucinogens] have led me into the more inner search for meaning and that sort of stuff which tends away from long-term goals and [the] material world in terms of getting a career and stuff like

that. I think it made me question the purpose of any and all that stuff. For instance is life about becoming wealthy and owning a nice house and a nice car and having a big family and stuff like that? Or is it about figuring out why it is that you're here outside from that stuff?" Debbie expressed, "It has changed how I see the world in general every day. I used to be a pretty straight-headed who saw the world for what it was, but never really saw the deeper side of things. It's like seeing the world in a grain of sand type philosophy." Dylan said, "I had a straightforward upbringing in the sense of right and wrong, but [these experiences] helped free me from that line of thinking. [It also] helps make your mind more willing to branch out and accept things outside of the ordinary. Because you have experienced it, you know the possibility is there."

Brian and Carl said using hallucinogens had helped guide or direct them in their lives. Brian said, "It does give me a higher sense, like there is more to this life than just the physical. I think about that as well. Not necessarily is God watching me now, but like there could be people that I can't see right now but I wonder if I could see them sometime through my use." Carl said, "It's helped me, it's sensed it, it's guided it in a way, but 'cause, like for me, I just like being curious. I will put it out there to find out what it is sometimes and sometimes that isn't good for me. But the hallucinogens, like make me think, like should I do this? Should I calm down, check on my environment? It helps me. It gives me more patience."

Using hallucinogens had an indeterminate effect on Alice and Beth with regards to their sense of direction or purpose. "I guess I am not really sure because I'm still exploring my spirituality," said Alice. Beth said, "I'm not really sure because I think that like college is like a whole search for your life. I mean, it is the beginning of the search for your life. And I started doing hallucinogens when I came to college so it has been pretty much part of my whole experience. So maybe it has, maybe it hasn't."

Carrie reported no effect. "It hasn't at all really. It was more like a time in my life where I would go take it and then move on. It really hasn't had any effect on my direction or sense of purpose," she said.

### **Hallucinogen Use and**

### **Feelings of Connectedness with Other People**

Each participant was asked how their hallucinogen use has affected their connectedness with other people. Responses fell into two contrasting categories: 1) Hallucinogens created a sense of community, and 2) Hallucinogens promoted a solitary experience.

Six participants reported that their experiences created a sense of community. Alice said, "I equate my spirituality with making that human connection. I mean like seeking out times where I can connect with people I don't know and we can learn from each other and share our ideas." She described taking DMT at a festival with a girl she met there who told her how DMT could open up a person to having more open relationships with both people and higher powers. Alice recalled, "It was an incredible experience."

Beth maintained that a sense of community is very important to her. "I think that having some sort of ritual for taking the drug is really important in order to expand your spirituality. There is like a certain way you are supposed to go about doing it like [with marijuana] the person who packs it and the first person who smokes it and it goes in a certain direction and I understand that and that, like developing those relationships is important."

Carl said, "Marijuana makes me want to meet people. I swear that's how I meet the majority of my friends. It's like, let's light up a bowl and a friendship is born." He added, "I like mushrooms because they take you out of yourself. They make the inner person in you talk without any restrictions. What we did the last time was we had a little group session where everybody took mushrooms and I told everybody straight up that this is the thing that lets you really get out of yourself. Like I want to learn something about everyone these days and what I like about mushrooms is that it takes me to that point."

Dylan found that his hallucinogen use brought him closer to people he had already considered close to him, such as friends, but that it did not bring him closer to strangers or to acquaintances. Debbie agreed, adding, "The majority of my inner circle of friends enjoy making inside jokes about things such as our hallucinogen experiences, and these jokes make me feel connected to them. If I don't feel a connection then I just don't feel there at times, and at other times it can really eat at me."

Brian discussed two experiences where he grew closer to the people he was tripping with. The first was with a new friend who had much experience consuming hallucinogens. He talked Brian into taking a larger dose. This experience led Brian to feel that, "with the right guy I can take a higher dose and be accustomed to it, like I felt comfortable [with him] and asking him for advice." In the second experience, Brian, his wife, and her sister consumed mushrooms. However, the sister

began to experience a bad trip. “She just lost her mind. I could see that from the way she was talking. Nothing she was saying was making any sense, like her brain was just jumbled, and she was really freaking out.” Brian stated he felt a sense of community in the process of trying to calm her.

Alan and Carrie reported that hallucinogens create more of a solitary effect on them. Alan stated, “Sometimes the [hallucinogen experiences] are really intense so socialization at that point doesn’t really make that much sense to me. It’s that I don’t feel, you know, connected to other people or something like that. It’s just that for me to actually sit there and put a thought together to express it verbally to someone else and then wait for their response and everything like that, it’s just too complicated of a task at that time. But, I would say [that] I feel more of a sort of esoteric unspoken connectedness with other people, almost like I can watch their behaviors and know exactly what they are thinking or something like that. I have had feelings like that before. I can read body language really well, that sort of stuff.”

Carrie said that using hallucinogens made her anti-social to human beings but she still felt a connection with animals and nature. She said, “I don’t want to connect with anybody. I started seeing it as I want to be on my own little island, people just in their own little islands drifting away. I have always wanted to verify my existence [during hallucinogen experiences] but I have wanted to do it with as much physical space around me as possible.”

### **Hallucinogen Use and**

#### **Openness to a Higher Power**

Six study participants reported that their hallucinogen use had a direct effect on their openness to a higher power, a higher power being defined as an entity or force that affects the outcome of events in everyday life. Alice however was unsure if she believed in a higher power while Carl responded indirectly by stating that he draws strength from his higher power by communicating with it every day, whether or not he was using hallucinogens. Alan stated, “I would say that it has opened me up to this idea that we might be the higher power...I feel that we are in a special place to understand certain things about the universe that other life forms aren’t and it’s possible that psychedelics are a tool we can use to do that.” Beth said the interconnectedness of God being everything and in everything gives her assurance that “when you open up yourself and your subconscious

that’s part of God.” When asked about hallucinogen use and its influence on openness to a higher power, Brian stated, “It has caused me to think that there is a lot more out there than what you can physically see. I mean just because you can’t see something doesn’t mean that it is not there. [When taking hallucinogens] I can think of certain things or think of a different perspective that I was not able to normally, or maybe even something I didn’t want to see sober. There are different perspectives to all kinds of things and if you look at these things from different angles you might see different things that you wouldn’t see before and I think this applies to my spirituality.” Debbie responded that it reassured her belief in a higher power and that “there is a method to the madness in life, and this is the greater power.” Dylan responded, “I think so. I never had a real exact religion in my family so I went to various types of Protestant churches and I studied Wicca and Buddhism for a while but that was before my drug use. In the years since I have done [mushrooms] I have felt something that I haven’t felt before and it wasn’t a flashback.” Carrie’s response was, “I think it had the opposite effect. I became more closed. I mean there were times where I did feel a connection between myself and something greater. But there have also been times where I could not or did not want to handle that connection. I would rather just be in my own little world and stay there. I would rather not open myself up to something greater or beyond my imaginative or cognitive abilities.”

All participants reported having used hallucinogens for recreational purposes, but their views on people who use them solely for recreation were mixed. Alan said, “Part of me gets offended. I mean, if you just do them just for recreation you are missing out on a lot of the purpose. But at the same time I remember in high school tripping and being like, oh this is fun, this is cool. So I can’t speak for everyone. I mean people are going to have all kinds of different reactions to the drug, but for those who come out and have a bad reaction and say that no one should do them, well, they are just as bad as me coming out and saying everyone should do them because I have had some great experiences.” Beth, on the other hand, said, “I am fairly neutral about [people who use them just for recreation]. I think as long as you’re using hallucinogens responsibly, and you’re self-aware about it, that’s okay. You might be using it for spiritual purposes and not even know it. But, if you are doing hallucinogens and you go crazy and do something stupid



like a drunk who punches in car windows, then I would be against it.” Carl stated, “I can’t really judge them because they might have something that’s bugging them or feel the need to use them that way, but they won’t find any deeper meanings by using them that way.” Debbie responded with some advice, “I would tell them that moderation is the key; recreational use can be fun for a while but it can also lead people to take too much or too often.” Dylan’s view on this was expressed as follows: “I think that mushrooms are intended to be a communal drug. When you are faced with yourself it’s better to have a group of peers around to reflect on it because you are less likely to have a bad trip. However, if you are only focusing on the visuals of a mushroom trip then you’re not going to have [spiritual insight].”

### Discussion

This pilot study provided evidence that college students such as the study participants were using hallucinogens for spiritual purposes. Two recent studies using surveys with predominantly Hispanic participants support the current study findings and suggest that hallucinogen use and not use of alcohol, marijuana, and stimulants may be associated with spiritual and religious purposes (Resor & Cooper, 2010; Sussman et al., 2006). Half of the current study participants were middle-class Caucasians, a demographic profile similar to the findings reported by Hunt (1997) as the population that was most likely to use hallucinogens. The remaining half of the participants came from minority communities, either Native American or Hispanic. Two participants, Carl and Carrie were from tribes that view peyote as medicine. This was a larger percentage of Native American participants in the study considering that they account for only 5% of the general university student population. This finding suggests that students from Native American tribes/Nations and from Hispanic communities, including from neighboring Mexico, may attach not only a spiritual significance and meaning but a historical and cultural significance and context and may be more willing and open to share their experiences as they did in this study. In addition, it has been suggested that familial influences in ethnic and tribal communities have focused more attention on the hazards of non-club drugs versus club drugs such as MDMA (Ecstasy) with such drugs being more easily accessible across the border in Mexico (NIDA, 2009). Therefore, the use of a transpersonal perspective was particularly suited to explore the spiritual underpinnings and meaning of

hallucinogen use among these study participants who lived and went to school in the U.S.-Mexico borderlands and were exposed to a variety of familial, social, cultural, economic, and generational experiences and contexts that influenced their hallucinogen use. No recent study has utilized this perspective to focus on exploring spirituality and hallucinogen use among young people in contemporary settings such as college and university campuses.

All of the current study participants reported that spirituality was an integral part of their lives. The current study findings are supported by those from Astin et al. (2008) regarding the importance of spirituality to college students. Alan, Alice, and Dylan mentioned struggling with their spirituality, further supporting Bryant and Astin’s (2008) conclusions that students who struggled with their spirituality were more likely to experiment with psychotropic substances than those who did not. Participants’ hallucinogen use reflected three aspects of spiritual development originally proposed by Love and Talbot (1999). First, hallucinogen use had impacted their sense of purpose or direction in life, with Carrie being the only exception and reporting no effect. Second, hallucinogen use impacted their feelings of connectedness with other people. Six participants expressed how their hallucinogen use had created a sense of community for them. While participants Alan and Carrie did not report this, Alan did indicate feeling an “esoteric unspoken connectedness with other people.” Carrie, on the other hand, expressed her feelings of stronger connection with animals and nature. Finally, hallucinogen use impacted their openness toward a higher power. Six participants reported this to be the case. Alice did not, perhaps because she was, as she indicated, still exploring her spirituality, and Carrie’s response reflected her choice to close herself off to this possibility because she would rather be “just in [her] own little world.”

This study sought to expand awareness and understanding of the role of hallucinogen use in the spiritual experiences of contemporary U.S. college students, a neglected topic in anthropological research. Although transpersonal anthropology places emphasis on altered states of consciousness, no previous research had been conducted in this field on contemporary uses by non-indigenous people of hallucinogens for spiritual purposes. Much potential exists for further research and expansion of this pilot study. A larger sample of study

participants has the potential for greater reliability and generalizability of the findings, and to provide greater opportunity to compare hallucinogen use across variables such as race, ethnicity, gender, family background, and religion. Additionally, university campuses in various regions of the country could provide interesting comparative data.

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### About the Authors

*Adam Stasko, MA*, was a graduate student in the Department of Anthropology, New Mexico State University when the study was completed.

*Satya P. Rao, PhD, MCHES*, is an Associate Professor in the Department of Public Health Sciences, 3 HLS, P.O. Box 30001, New Mexico State University, Las Cruces, NM 88003-8001. 575-646-6714 (Phone); 575-646-4343 (Fax) sakrishn@nmsu.edu or phdsatya@aol.com

*Amy Pilley, BCH*, is a Graduate Student in the Department of Public Health Sciences, New Mexico State University, Las Cruces, NM.

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