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The International Journal of Transpersonal Studies

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Editors' Introduction

We are pleased to bring an exciting and diverse array of papers to the first issue of the International Journal of Transpersonal Studies to be distributed online without cost. (Note: this volume will be available for purchase in hard copy form through an on-demand publisher later this year.)

The first paper is jointly authored by a team led by Eli Kolp, and entitled, "Ketamine-Enhanced Psychotherapy: Preliminary Clinical Observations on its Effects in Treating Death Anxiety." This important paper publishes initial findings on the potentially beneficial off-label use of ketamine, a legally available hallucinogen, in the clinical treatment of terminal patients. The work presented here represents a long-awaited opportunity to continue the careful efforts of early researchers in the field of transpersonal psychology to examine the possible psychotherapeutic benefits of consciousness-altering substances. This is followed by Whit Hibbard's "Reports of Transpersonal Experiences by Non-Native Practitioners of the Native American Sweat Lodge Ceremony: A Critical Appraisal," which explores the beliefs and critical discernment of practitioners with respect to their sweat lodge experiences. The next paper is by Adam Rock and Stanley Krippner, titled "Does the Concept of 'Altered States of Consciousness' Rest on a Mistake?" In this paper, the authors examine whether the term, altered states of consciousness, carries misleading implications, and whether it should be replaced by new terminology. Paul Cunningham's paper, titled "The Challenge, Prospects, and Promise of Transpersonal Psychology," follows-up an earlier work published in the 2006 IJTS and provides opportunity for him to thoughtfully examine the field of transpersonal psychology in a stimulating way, lending needed perspective to its continued unfolding.

In our special topics section, "Applying Quantitative Research Methods in Transpersonal Psychology," which we introduce separately prior to the two papers that compose this section, namely Sharon Solloway and William Fisher's "Mindfulness in Measurement: Reconsidering the Measurable in Mindfulness Practice" and Teresa DeCicco and Mirella Stroink's "A Third Model and Measure of Self-Construal." These papers demonstrate how carefully adapted quantitative analysis can provide support to central areas of research and theory in transpersonal psychology.

Lastly we present two book reviews that are edifying pieces in their own right. The first, by Gene Thursby, looks at *The Untethered Soul*, by Michael Singer, a book that the reviewer says, "should become known as a modern spiritual classic." The second, by Elias Capriles, takes the reader on a richly-informed tour of *The Fall*, by Steve Taylor, a work that explores evidence for a long-past golden age that may one day return.

This year has brought a number of major transitions to IJTS. After three years under the institutional sponsorship of Saybrook Graduate School (2003-2006), the journal has shifted to the custodianship of Floraglades Foundation, Inc., a non-profit organization. In 2003 Saybrook Graduate School adopted IJTS from the University of Hawaii, where its tenure had ended with the retirement of the professor who was then one of the journal's editors, Sam Shapiro. After three years with Saybrook under the editorship of Douglas MacDonald and

Harris Friedman, a new administration at Saybrook made the decision to divest itself of the journal. This coincided with the retirement of one of its editors (Harris) from Saybrook as Emeritus Professor. At this same moment, Douglas decided at that time to step down as co-editor of IJTS–and IJTS was in danger of disappearing.

However, Harris was able to convince Floraglades Foundation to provide temporary financial support for IJTS. In addition, the Center for Spirituality and Health at the University of Florida, where Harris is now Research Professor, generously donated funds to design a website for the journal (see <www.transpersonalstudies.org>). The British Psychological Society (BPS) also donated generously to make this website interactive, a work that is now in progress. After much debate among the IJTS editorial board, a decision was made to distribute the journal online through its website at no cost. The journal will continue to be available in hard copy through a link that will be established later this year to an on-demand publishing house. The decision to distribute online without cost involves three important factors: (1) e-publishing is virtually without cost, enabling the journal to continue as a viable medium without large-scale institutional support, (2) it provides free access to all equipped to enter cyberspace, which is particularly important for an international journal in which postage can be prohibitively expensive and different national economies can make the journal difficult to purchase by all interested, even if reasonably priced, and (3) given that the cost of a subscription would normally be accepted only by some percentage of readers who are already acquainted with and interested in the transpersonal field, gratis publication of the journal makes its articles widely available to all readers in the field as well as those who might develop an interest through exposure to its content. At the same time, the on-demand printing option permits libraries, authors, and readers to purchase a printed and bound copy of the journal for their own collections at minimal cost.

Along with this change, all former journal editors were given the honorary title of Editor Emeritus. In addition, the title of Honorary Editor was given to Stanley Krippner, who convinced Harris to assume the role of editor and as Academic Dean at Saybrook to advocate convincingly for Saybrook's adoption of the journal when the University of Hawaii withdrew. Stanley continues to contribute papers to the journal on a regular basis and is an inspiration to us all. Furthermore, two new editorial roles were created, namely that of Managing Editor held by Glenn Hartelius and Coordinating Editor held by Les Lancaster. Les, in his role of Coordinating Editor, will be working with the website, using the BPS funding to allow a more dynamic interplay to be held between authors and readers of the journal. Les is Professor of Psychology and Chair of the Transpersonal Psychology Program at Liverpool John Moores University. Glenn is a student at California Institute of Integral Studies, where he expects to receive the Ph.D. in 2008 specializing in theory and research tools for somatic, phenomenological, and transpersonal psychologies. Although he has not yet received his doctorate, he has already published several important papers in transpersonal studies, including an extensive synopsis of the definition of transpersonal psychology over a period of 35 years (Hartelius, Caplan, & Rardin, 2007) and a proposal for introducing quantitative measures to the phenomenological study of body-located experience (Hartelius, 2007). Glenn's role was to have been limited to receiving all incoming manuscripts and sending them for peer review, as well as communicating with submitting authors and facilitating their revising accepted manuscripts for publication. His participation has evolved into much more and consequently, effective this 2007 issue, Glenn has agreed to assume the full role of co-editor along with Harris.

Harris Friedman, Editor
University of Florida

Glenn Hartelius, Editor
California Institute of Integral Studies

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Ketamine-Enhanced Psychotherapy:
Preliminary Clinical Observations on its Effects in Treating Death Anxiety

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Ketamine, a dissociative anesthetic commonly used by US physicians, has recently been shown to be a powerful anti-depressant and is also capable of eliciting transpersonal experiences that can be transformative. Although currently approved in the US only for use as an anesthetic, physicians there can legally prescribe it off-label to treat various psychological/psychiatric problems and it has been used for these non-anesthetic purposes in Argentina, Iran, Mexico, Russia, and the UK, as well as in the US. The literature on using ketamine psychotherapeutically is reviewed and two case studies using ketamine-enhanced psychotherapy (KEP) for treating death anxiety in terminally-ill people are reported. The potential importance of beginning formal research on using KEP during end-of-life for those suffering death anxiety is emphasized.

Introduction

The experiential phenomena associated with death remain unknown. Meanwhile, we all know that it is the only certainty in life. Everything that lives dies--with no exception. However, human beings alone are known to be burdened with the cognitive capacity to be aware of our own inevitable mortality and to fear what may come afterwards. A central drive of all human beings is a self-preservation instinct. Combining this instinct with the awareness that death is inevitable creates in some of us a paralyzing terror of non-existence, which we struggle to overcome through both conscious efforts and unconscious defense mechanisms. Our death anxiety may be exponentially intensified during the end-stage of any terminal illness when we face death without refuge. Therefore, it may become necessary to help some dying people manage death anxiety in such a way that it resolves existential and other fears related to the end-of-life issues. Psychedelic psychotherapy–combined with other conventional treatment approaches–may be a powerful technique to deal with this challenge, and it may also be a useful standalone treatment for patients who have had little to no success with more conventional approaches.

Numerous clinical research studies of terminally-ill patients (e.g., with end-stage cancer) treated with psychedelic compounds (i.e., primarily lysergic acid diethylamide [LSD]) were performed from the late 1950s to the early 1970s and sometimes demonstrated remarkably impressive treatment outcomes (e.g., Pahnke, 1968, 1969; Pahnke, Kurland, Goodman, & Richards, 1969; Pahnke, McCabe, Olsson, Unger, & Kurland, 1969; Pahnke, Kurland, Unger, Savage, & Grof, 1970; Pahnke, Kurland, Unger, Savage, Wolf, & Goodman, 1970; Richards, Grof, Goodman, & Kurland, 1972; Watts, 1973; Richards, Rhead, DiLeo, Yensen, & Kurland, 1977; Richards, Rhead, DiLeo, Grof, Goodman, DiLeo et al., 1979; Grinspoon &

Bakalar, 1979; Richards, 1979/1980; Grof, 1980; Yensen & Dryer, 1993/1994; Grob, 1998, 2002; Walsh & Grob, 2005). Kast pioneered pain treatment with LSD in patients with terminal cancer by discovering that low dose LSD (100 micrograms) brought greater analgesia than more widely used medication (such as Dilaudid [hydromorphone] and Demerol [meperidine]) and that these superior effects lasted for several days as opposed to several hours; in addition, he and colleagues documented diminished fear of death and significant reduction of depressive symptoms (Kast, 1962, 1966a, 1966b; Kast & Collins, 1964). Another investigator replicated Kast's findings by treating dying patients with LSD (Cohen, 1965).

The most comprehensive research on LSD-assisted psychotherapy on patients with terminal cancer was done by Pahnke at the Maryland Psychiatric Research Institute from 1965 through the early 1970s; these studies asserted that the most powerful results from treatment were induced by transpersonal (e.g., spiritual, mystical, or peak) experiences (Pahnke, 1968, 1969; Pahnke et al., 1969; Pahnke, McCabe et al., 1969; Pahnke et al., 1970; Pahnke, Kurland et al., 1970). Findings from these studies indicated that two-thirds of the LSD treated cancer patients had significant improvement with reductions in pain, depression, and fear of death.

The final study of that era was done by Grof, who used LSD-assisted psychotherapy for treatment of 60 patients with terminal cancer (Grof, Goodman, Richards & Kurland, 1973). The study measured levels of anxiety and depression, and the amount of narcotics before and after LSD treatment. The measures also included the MMPI and Attitude to Death tests. Grof reported that 29 percent of his treated patients showed dramatic improvement, with an additional 41.9 percent of patients showing moderate improvement.

The medical use of psychedelic substances was subsequently rejected in the US and most other Western countries after the onset of the "war on drugs." This war emphasized psychedelics' potential for harm (Cornwell & Linders, 2002) while overlooking their significant promise, thus potentially extracting a huge cost on society as a whole (Miron, 2004). One of the consequences of the suppression of psychedelic research (with the exception of ketamine) was an unjustified minimization of their potential therapeutic value, even though there is voluminous research literature supporting both the therapeutic efficacy and safety of psychedelic drugs when used by professionals for treating numerous addictive disorders and mental health problems (Friedman, 2006).

However, this prohibition on research has changed recently with approval of several US studies of psychedelic psychotherapy for treating psychological/psychiatric problems, including those related to terminal illnesses (Friedman, 2006). One such study at Harbor-UCLA Medical Center, for treatment of existential anxiety in end-stage cancer patients, started in 2004 and was the first known legally-conducted study on this topic after the decades of prohibition; this study utilizes a psychedelic agent psilocybin (4-phosphoryloxy-N.N-dimethyl-tryptamine) and was developed and funded by the Heffter Research Institute (see www.canceranxietystudy.org). Another study, pending IRB approval at the Mount Sinai Comprehensive Cancer Center in Miami, was developed and funded by the Multidisciplinary Association for Psychedelic Studies (see www.MAPS.org) to evaluate the effectiveness of psilocybin-assisted psychotherapy for reduction of distress in patients with advanced melanoma (personal communication, Sameet Kumar, April 4, 2007).

Our paper focuses on the clinical potential of another psychedelic drug, ketamine hydrochloride (ketamine), which can legally be used by US physicians to treat psychological/psychiatric problems including anxieties in dying patients. We present two case studies on the use of ketamine-enhanced psychotherapy (KEP) for anticipated grief resolution (AGR) in patients with end-of-life issues. The first case documents a successful resolution of anticipated grief outcome after KEP, while the second case illustrates some of KEP's limitations.

Overview of Ketamine

The medication ketamine [2-(2-chlorophenyl)-2-(methylamino)-cyclohexanone] has many effects in the brain, but there is now broad agreement that a key action is its noncompetitive antagonism of the N-methyl-D-aspartate (NMDA) receptor that modulates the neurotransmitter glutamate. It produces extremely effective analgesia and, for more then 30 years, has been commonly used in clinics and hospitals as an anesthetic for children, adults, and the elderly due to its rapid onset and short duration of action. Also due to its exceptional analgesic properties, ketamine is widely used at sub-anesthetic doses for management of breakthrough pain in patients with acute and chronic pain, for treatment of

neuropathic pain disorder, ischemic limb pain disorder, refractory cancer pain, as an adjunct to standard opioid therapy, and as a pediatric sedation tool for use with acutely injured children (Petrack, Marx, & Wright, 1996; Carr, Goudas, Denman, Brookoff, Staats, Brennen et al., 2004; Ellis, Husain, Saetta, & Walker, 2004; Green & Krauss, 2004; Howes, 2004; McGlone, Howes, & Joshi, 2004; Rakhee & Milap, 2005; Visser & Schug, 2006).

Ketamine use is devoid of life-threatening side-effects and several instances of unintentional administration of overdoses of ketamine–up to ten times that usually required–have been followed by prolonged but complete recovery (Physician Desk Reference, Product Information). All previous clinical studies have both established its greater safety (e.g., Green & Krauss, 2004; White, Way, & Trevor, 1982) and failed to detect any long-term impairment as a consequence of its use (e.g., Siegel, 1978). In fact, there is a plethora of recent studies investigating the possibility of damage related to ketamine with normal, pathological (e.g., patients with schizophrenia), and ketamine-abusing volunteers. The majority of these studies suggest that ketamine can be safely used for treatment of various psychological/psychiatric problems (Morgan, Mofeez, Brandner, Bromley, & Curran, 2004; Karst, Wiese, Emrich, & Schneider, 2005; Cho, D'Souza, Gueorgiuieva, Perry, Madonick, Karper et al., 2005; Parwani, Weiler, Blaxton, Warfel, Hardin, Frey et al., 2005; Holcomb, Medoff, Cullen, & Taminga, 2005; Morgan, Rossell, Pepper, Smart, Blackburn, Brandner et al., 2006).

In addition, more than 7,000 published reports describe ketamine's high level of effectiveness in a variety of other clinical applications (Shapiro, Wyte, & Harris, 1972; Reich & Silvay, 1989; Ross & Fochtman, 1995; Dachs & Innes, 1997; Bauman, Kish, Baumann, & Politis, 1999; Green & Krauss, 2000; Ersek, 2004). According to several reports, ketamine in fact prevents brain damage from head trauma, strokes, heart attacks, epileptic seizures, low oxygen levels, and low blood-sugar levels (Shapiro et al., 1972; Weiss, Goldberg, & Choi, 1986; Rothman, Thurston, Hauhart, Clark, & Solomon, 1987; Shapira, Lam, Eng, Laohaprasit, & Michel, 1994; Hirota & Lambert, 1996).

The most extensive studies of the biochemical aspects of ketamine have been done by a US researcher, Krystal, who has been focusing on its effects on perceptual and cognitive functioning (Krystal, Karper, Seibyl, Freeman, Delaney, Bremner et al., 1994). His

group of investigators also completed clinical research studying the effect of ketamine's NMDA glutamate receptor antagonist response in recovering ethanol-dependent patients (Krystal, Petrakis, Limoncelli, Webb, Gueorgueva, D'Souza et al., 2003). In addition, Krystal's team reported antidepressant effects of ketamine (Berman, Cappiello, Anand, Oren, Heninger, Charney et al., 2000). These antidepressant effects of ketamine have been recently confirmed by a group of government investigators at the National Institute of Mental Health (Zarate, Singh, Carlson, Brutsche, Ameli, Luckenbaugh et al., 2006), documenting a dramatic improvement in patients' mood in a matter of hours among a sample of eighteen treatment-resistant patients diagnosed with major depressive disorder. It is noted that these newly documented powerful antidepressant effects of ketamine are of great potential importance.

One of us (Krupitsky) has collaborated in researching the psychopharmacology of ketamine at Yale with Krystal (Krupitsky, Burakov, Romanova, Grinenko, Fletcher, Petrakis et al., 2001; Krystal, Petrakis, Krupitsky, Schütz, Trevisan, & D'Souza, 2003). Krupitsky also conducted independent studies of ketamine psychopharmacology and biochemistry (e.g., Krupitsky, Grinenko, Karandashova, Berkaliev, Moshkov, & Borodkin, 1990) at the Center for Research in Addiction and Psychopharmacology in St. Petersburg, Russia, researching the effects of ketamine administration on metabolism of biogenic amines.

Although there are both widespread medical usages of ketamine as an anesthetic and significant ongoing research on many other applications of ketamine within the US, we know of no current studies examining this medication's usefulness for the treatment of psychological/psychiatric problems. We are especially concerned that its potential for treating anxieties related to end-of-life issues has been ignored. This may be due to the fact that ketamine is seen as a potent psychedelic agent. It reliably causes powerful alterations in consciousness (e.g., in mood, perception, and thought) that naturally occur only during dreaming, memory flashbacks, psychoses, and mystical experiences (Rumpf, Pedick, Teuteberg, Munchhoff, & Nolte, 1969; Grinspoon & Bakalar, 1979; Grinspoon, 1986), and this is deemed undesirable in the suppressive climate related to the war on drugs. Nevertheless, given that many research studies on the clinical effectiveness of psychedelics are now resuming in the US (Friedman,

2006), it is an opportune time to conduct further studies on the effectiveness of ketamine therapy. One fact that makes ketamine especially appealing as a psychedelic drug for research and clinical practice is that it is currently legal for medical practitioners to use in the US now (i.e., it can be legally prescribed "off-label"[1] by physicians for psychotherapeutic purposes). This legal status may greatly facilitate the process of getting approval for ketamine's use in formal clinical research, unlike the case with other psychedelics that require surmounting numerous bureaucratic hurdles. In addition, there is one other advantage to ketamine over similar substances, namely its effects are of short duration and can be managed within the customary timeframe of most psychological/psychiatric sessions (i.e., in approximately one hour), so it can fit into current service delivery systems.

It is also important to emphasize that there has been an increase of ketamine abuse (Sputz, 1989; Jansen, 1993). When ketamine is used in uncontrolled settings recreationally, it can lead to significant medical problems, including excessive sedation and respiratory depression–especially if combined with depressants like alcohol, benzodiazepines, or gamma hydroxybutyrate (Ricuarte, 2005). Frivolous use of ketamine may also cause impairment of episodic memory and attentional functioning (Morgan, Monaghan, & Curran, 2004). Therefore, we emphasize that ketamine should never be used in any way other than for research or clinical applications under the supervision of qualified and licensed professionals.

Transpersonal Effects of Ketamine

There is no consensual opinion regarding how psychedelic substances might work beneficially within clinical settings. Most of the researchers view the active mechanisms of psychedelic substances solely from a biochemical perspective. Ketamine is often considered a "psychomimetic" (i.e., causing effects mimicking psychoses), prompting some US investigators to use ketamine-induced phenomena as a model for studying psychoses in experimental research (e.g., Krystal et al., 1994). In this model, the psychedelic effects of ketamine are seen as undesirable rather than as a potential therapeutic mechanism.

Contrary to this view, we propose that ketamine's powerful psychotherapeutic effect is possibly due to its psychedelic-including transpersonal experience generating-properties, as it frequently induces in sub-anesthetic doses feelings of ego dissolution and loss of identity, emotionally intense visions, visits to mythological realms of consciousness, vivid dreams and memories of possible past incarnations, experience of the psychological death and rebirth of the ego, and feelings of cosmic unity with humanity, nature, the universe, and God. These observable facts were initially described as "emergence phenomena" (White et al., 1982) and clearly depict a psychedelic experience. These non-ordinary states of consciousness offer an additional or alternative mechanism of ketamine's effects over and above purely biological explanations. One of us (Friedman, 2006) previously speculated that psychedelic drugs such as ketamine are specifically useful due to their transpersonal, rather than solely neurobiological, effects. This is also congruent with the conclusions of numerous researchers that spiritual factors are crucial in treating many psychological problems, such as is frequently discussed for alcoholism (e.g., Robinson, Brower, & Kurtz, 2003; Amodia, Cano, & Eliason, 2005).

Grof (1980) has developed a comprehensive theory of psychedelic psychotherapy from this perspective. He concluded that psychedelic substances facilitate therapeutic experiences of symbolic death and rebirth of the ego, allowing clients to work through deep traumatic fixations in their unconscious. Grof successfully applied this specific transpersonal psychotherapeutic approach to more than 750 patients. He explicitly discouraged his clients from analyzing their psychological problems and instead assisted them in transcending their inflexible maladaptive patterns, placing a strong emphasis on their transpersonal growth potential. Although Grof primarily used LSD as a psychotherapeutic agent, he acknowledged that ketamine holds great promise due to its "affinity for positive dynamic systems" (p. 214). He stated that the psychoactive effect of ketamine is so powerful that "it catapults the patient beyond the point of impasse from the previous LSD session, and can make it possible for him or her to reach the better level of integration" (p. 214).

There is another specific advantage that ketamine has over other psychedelic substances (i.e., in addition to it being legally available through off-label prescription and of short duration), namely its well-documented ability to reliably replicate near-death experience [NDE] (Domino, Chodoff, & Corssen, 1965; Stafford & Golightly, 1967; Rumpf et al.,1969; Collier, 1972; Siegel, 1978, 1980, 1981; Grinspoon & Bakalar, 1979; White et al., 1982;

Ghoniem, Hinrichs, Mewaldt, & Peterson, 1985; Lilly, 1988; Sputz, 1989; Kungurtsev, 1991). One of us (Jansen) analyzed similarities between ketamine-induced transpersonal experience and NDEs in a series of studies, concluding that the intramuscular administration of 150-200 mg of ketamine can reliably reproduce all of the features commonly associated with NDEs (Jansen, 1989a, 1989b, 1990, 1991, 1997, 2001).

The NDE is an altered state of consciousness usually reported by a person who has experienced so-called clinical death and has then revived. This is an episode split off from the patient's usual life and marked by unusually intense dream-like events. Typical characteristics of an NDE include a sense that one is truly dead, a perception of separation from the body or out-of-body experience, a sense that what is experienced is real, ineffability or a sense that the experience is beyond words and cannot be described using language, and transcendence of time and space (Ring, 1980, 1984; Greyson, 1983). Some people believe that they were actually "in death," reporting that after "dying" they left their body and floated away, became enveloped in a dark tunnel, and then entered a soothing light; later when they "came back to life," these individuals are reportedly sometimes able to recall the events that occurred when they were "dead" (Grof & Halifax, 1977; Osis & Haraldsson, 1977).

Greyson reported approximately 70 percent of NDEs are accompanied by feelings of calm and peace, while about 30 percent of NDEs are very frightening (Greyson, 1983; Greyson & Stevenson, 1980). These studies suggest that past memories are often organized into a life review and patients often report that, during the NDE episode, their entire past flashes before them. Transcendent mystical states are also common, with visions that include meaningful figures (e.g., parents, teachers, partners, friends, etc.) who may be already dead or still alive at the time, as well as archetypal images (e.g., of angels, Buddha, Christ, Krishna, or any other gods and goddesses) representing patients' belief system. The experience of God is often reported as an ocean of luminescent white light. After effects of NDEs include: decreased fear of death accompanied by increased appreciation of life, increased spirituality and concern for others, and decreased materialism and competitiveness. Two of us (Jansen and Kolp) had personal NDEs from natural causes, as well as transpersonal ketamine-induced experiences, and can verify the striking similarities between both phenomena (i.e., a sense of being dead, out-

of-body experience, feelings of levitation, transcendence of time-space continuum, life review, visits of non-physical realities, encounters with non-corporeal entities, ineffability of the experience, etc). It is important to note that the effect and phenomenology of NDEs in children (who have not yet developed any specific religious programming) are similar to NDEs in adults (Morse, Conner, & Tyler, 1985).

NDEs are often very transformative and can frequently induce positive changes in spiritual development and worldview (Ring, 1980, 1984; Ring & Valeriano, 1998). There are also numerous anecdotal accounts of patients who had a spontaneous remission of their illnesses (some of them were even classified as "terminal") after their NDE (Grey, 1985; Morse & Perry, 1992; Fenwick & Fenwick, 1995; Ring & Valeriano, 1998; Roud, 1990). Ketamine-induced NDEs appear to be equivalent to natural NDEs and may facilitate stable recovery by accelerating patients' psychospiritual growth and broadening their worldviews (Krupitsky & Grinenko, 1997).

History of Ketamine in Psychotherapy

A number of international psychiatric investigators have utilized treatment with ketamine to create cathartic effects in psychotherapy. In Iran, ketamine psychotherapy was shown very effective in treating various psychiatric disorders (Khorramzadeh & Lofty, 1973). These investigators administered ketamine to 100 psychiatric patients with different mental health and psychosomatic diagnoses, including depression, anxiety, phobias, obsessive-compulsive neurosis, conversion reaction, hypochondriasis, hysteria, tension headaches, and ulcerative colitis. They reported that 91 participants were doing well after six months, and 88 remained well after one year. These investigators concluded that "ketamine's abreactive or cathartic effect was related to its mind-expanding qualities;" however, they did not further specify their findings in clinical language. In Argentina, Fontana (1974) used ketamine as an adjunct to antidepressive psychotherapy in order to facilitate regression to a prenatal level through a disintegration and death experience, which was followed with a progression experience that was seen as similar to a rebirth. He emphasized the advantages of ketamine, which made it possible to achieve deep levels of regression. In Mexico, Roquet (1974) was the first clinician to employ ketamine psychedelic psychotherapy

in a group setting. He combined psychoanalytical techniques with the healing practices of Mexican Indian ceremonies and created a new approach to psychedelic psychotherapy that he called "psychosynthesis" (not to be confused with the same term used by Assagioli). He mainly used this procedure to treat neurotic patients, although he described some success with personality disorders and selected psychotic patients.

One of us (Krupitsky) first began using ketamine in the former Soviet Union in 1985 for treatment of alcoholism. He developed Ketamine Psychedelic Therapy (KPT) and treated more than 1,000 patients without complications. In one of his many controlled studies, nearly 70 per cent of his ketamine-treated patients remained abstinent from alcohol during a one-year follow-up, in contrast to only 24 per cent abstinence achieved in a control group treated with a more traditional form of therapy (Krupitsky, Grinenko, Berkaliev, Paley, Petrov, Moshkov et al., 1992). In a comprehensive clinical research review on this subject, Krupitsky (Krupitsky & Grinenko, 1997) concluded that KPT is a safe and effective treatment for alcoholism and other drug dependencies, such as heroin and ephedrine, as well as effective for treatment of post-traumatic stress disorder, reactive depression, neurotic disorders, and avoidant personality disorders, and somewhat effective for the treatment of phobic neurosis, obsessive-compulsive neurosis, and histrionic personality disorder.

Krupitsky and his colleagues (Krupitsky, Burakov, Romanova, Dunaevsky, Strassman, & Grinenko, 2002) recently conducted a double-blind randomized clinical trial comparing the relative effectiveness of high (2.0 mg/kg IM) to low (0.2 mg/kg IM) dose administrations of ketamine for the psychotherapeutic treatment of heroin addiction; two-year follow-up data indicated that high dose ketamine was more effective. The study reported that "high dose KPT produced a significantly greater rate of abstinence in heroin addicts within the first 24 months of follow-up than did low dose KPT" (p. 277). The authors also concluded that "high dose KPT brought about a greater and longer-lasting reduction in craving for heroin, as well as greater positive change in nonverbal unconscious emotional attitudes" (p. 278). It appears the study's data represent both a lower rate of recidivism and a higher degree of psychological integration. Recent changes in the regulations governing such research in Russia have now brought Krupitsky's pioneering research efforts to a halt.

There was also an intriguing study at the University of Cambridge in the UK, in which ketamine was used to treat compulsive behavior in young women with anorexia nervosa with good results, although the publication of this study does not clearly indicate that the clinicians used a psychotherapeutic model (Mills, Park, Manara, & Merriman, 1998.) The study used infusions of ketamine to treat 15 patients with a long history of eating disorder, all of whom were chronic and resistant to several other forms of treatment. Nine responders showed prolonged remission when treated with ketamine infusions. Clinical response was associated with a significant decrease in Compulsion score: before ketamine, mean +/- SE was 44.0 +/- 2.5; after ketamine, 27.0 +/- 3.5 (t test, p = 0.0016).

There have also been various lone practitioners in other countries, usually family doctors or psychiatrists, who have used ketamine to treat psychological/psychiatric problems (see Jansen, 2001.)

Ketamine-Enhanced Psychotherapy

Inspired by Krupitsky, one of us (Kolp) engaged in the clinical treatment of alcoholic clients using what he called Ketamine-Enhanced Psychotherapy (KEP). His approach was explicitly meant to replicate Krupitsky's pioneering work and to extend it into another cultural context, the US (note: Kolp is a bi-cultural Soviet-American psychiatrist, who was originally trained as a Soviet psychiatrist, immigrated to the United States in 1981 and was re-trained as an American psychiatrist). As with Krupitsky's KPT technique, Kolp's KEP treatment explicitly relied on the transpersonal effects of ketamine to facilitate psychotherapeutic change. Both researchers have recently published their combined observations on clinical and empirical research of the effectiveness of ketamine-enhanced psychotherapy for treatment of alcoholism (Krupitsky & Kolp, 2007).

Once more, although most psychedelic drugs are illegal to use in the US even by physicians, ketamine is a notable exception because it is readily available to physicians as an anesthetic that can be legally used off-label for psychiatric treatment. Consequently, Kolp employed ketamine in his private psychiatric practice in the US from the fall of 1996 through the spring of 1999, administering it to more than 70 clients. Several of us also recently published Kolp's empirical observations of the effectiveness of his KEP for treatment of alcoholism (Kolp, Friedman, Young, & Krupitsky, 2006).

During this same period of time, Kolp had an opportunity to administer KEP to two patients with end-stage cancer. This paper summarizes these patients' responses and provides Kolp's informal retrospective observations on ketamine's effectiveness for treatment of existential anxieties in terminally ill people. We emphasize that these clinical administrations were not conducted in a formal research context and this paper provides the informal retrospective observations on ketamine's effectiveness for treatment of existential anxieties in terminally ill people. However, in light of the recent resurgence of psychedelic research in the US and our plans, as a research team, to now seek institutional review board approval and grant funding for formally pursuing studies on ketamine's effectiveness in a number of clinical applications including the treatment of death anxiety, a reporting of Kolp's clinical observations is seen as warranted.

Method and Results

KEP was offered to hospice clients for AGR in order for terminally ill patients to experience a "death rehearsal." KEP was administered to clients as part of a time-limited individual outpatient treatment that consisted of five sessions administered in the following stages:

Session 1
Assessment for appropriateness of treatment with KEP

Session 2
Establishment of a therapeutic alliance and formation of a psychotherapeutic "myth"

Session 3
Preparation for the transpersonal experience and formulation of the psychospiritual goal for the ketamine session

Session 4
Induction of the transpersonal experience through the administration of 150 mg of ketamine intramuscularly

Session 5
Integration of the transpersonal experience

The course of treatment was structured on a weekly basis with one session per week. Sessions 1-

3 and 5 were 75 to 80 minutes long and session 4 (ketamine-induced near-death experience) was 3 hours long. During the first three sessions the patient's beliefs about "afterlife" and attitudes toward the death were explored. The patient was told that the psychedelic session may induce important insights concerning the above beliefs and attitudes. An individually tailored "psychotherapeutic myth" was formed during this stage. During the fourth session the patient was injected with ketamine and instructed to surrender fully to the experience. The patient was then exposed to specially chosen music (generally, New Age composers). During the final session the patient, with the aid of the therapist, discussed and interpreted the personal significance of the symbolic content of the transpersonal experience. This uniquely profound and powerful transpersonal experience may help the patient to generate new insights and attitudes about the death and dying.

Results from Two Case Studies

In order to illustrate how KEP affected clients with end-of-life existential issues, two representative case studies are presented. The first case demonstrates a success story, while the second case represents a failure to resolve anticipated grief. These two case studies are informative for understanding how KEP might be effective for treatment of anticipated grief resolution, and they also shed light on factors that can diminish the therapeutic benefits of KEP.

Case Study 1

W developed advanced (stage IV) breast cancer when she was 62 years old. By the time she was referred to an oncologist the cancer had already spread to the bone. She was diagnosed with osteolytic metastases (the cancer began eating away the bones of her spine, legs, and pelvis), which caused her persistent skeletal pain. The oncologist offered her an experimental chemotherapy, which W initially accepted. However, W learned that the prognosis of metastatic breast cancer is very poor and that the treatment with an investigational agent does not prolong survival time, which is limited to a few months after diagnosis. In addition, she immediately developed severe side effects (fatigue, loss of appetite, nausea, vomiting, worsening of bone pain) and stopped the treatment after the third intravenous administration. She was refered to a hospice program for palliative care and started treatment with an analgesic (morphine, 20

mg. orally, every 4 hours), an anti-anxiety medication (Lorazepam, 2 mg. orally, every 6 hours), and an anti-emetic agent (Metoclopramide, 10 mg. orally, 30 minutes before meals and bedtime). It was at this point that she requested ketamine-enhanced psychotherapy (KEP) in order to experience "death rehearsal."

W shared that she was raised as the only child in an affluent family and did not have any significant childhood traumas. Her mother was Roman Catholic and her father was Unitarian Universalist. W initially adopted her mother's religious beliefs, she later changed to her father's views (between ages 8 and 9), and in her early 20s she adopted agnosticism as her primary life philosophy.

Her substance use history was unremarkable. W never smoked tobacco and never used any "hard" drugs. She did not start using alcohol until the age of 21, when she started drinking ETOH very infrequently, consuming a glass of a table wine, 1-2 times a year. W reported that she never tried any psychedelic drugs, including cannabis.

W identified herself as a "sex and love addict." She shared that she was sexually awakened at the age of 8 by her 10-year-old cousin, who taught her "the art of self-pleasuring." They practiced mutual masturbation in a variety of forms, on a regular basis (frequently daily), and, 4 years later, her cousin engaged another participant in their sexual explorations, an older boy, who was 15 year old at that time. That liaison lasted for a year until her family moved out of the area. W began dating independently at the age of 15 and remained very sexually active through her entire life. She never considered her sexual behavior to be aberrant or immoral, and she always unreservedly enjoyed her sexuality.

W reported that she devoted her life-long career to "a research of human sexuality." She graduated from college with a social science degree at age 22 and started traveling extensively around the world, "sampling men of all races and colors." She estimated that she had sex with more than 5,000 males and approximately 100 females.

She unintentionally became pregnant at age 39, giving birth to a healthy daughter whom she raised as a single mother. After her daughter started an exclusive boarding school, W decided to continue her own education as well and completed a doctorate in psychology. She became specialized in couples counseling and continued practicing her specialty until the time of her terminal illness.

Once W learned her prognosis, she became very frightened of her impending death. She also became preoccupied with her childhood religious indoctrinations and started having uncontrollable fears of "going to the Hell" as a punishment for her "morbid sin of lust." She tried returning to her Catholic roots and even participated in confession; however, this provided no relief of her death anxiety. W remained very fearful and apprehensive, to the point the she developed frequent "attacks of terror" several times a day, lasting from several minutes to half an hour. W continued having daily panic attacks despite ongoing treatment with an anti-anxiety agent.

W started treatment with KEP within one week after she terminated her chemotherapy. She spent three 75 to 80 minutes sessions sharing her life history, spiritual views, and beliefs about afterlife. During the preparatory stage of her psychotherapy, W was offered the option of either decreasing or dicontuing the doses of both CNS depressants (Lorazepam and morphine), in order to decrease the chance of amnesia and increase the chance of a mystical experience during KEP. W agreed with this plan and was successfully detoxified from Lorazepam by decreasing the dose by 1 mg every 24 hours. She was also able to gradually decrease the dose of Morphine from 20 mg. 6 times a day to 10 mg. 4 times a day. Moreover, she completely stopped taking opiates 8 hours prior to the KEP session. The half-life of morphine is approximately 2 hours; therefore, 8 hours of abstinence from the drug should have been sufficient time for the opiate to clear from the patient's system.

W received 150 mg of ketamine intramuscularly during her fourth session. This dose induced "a near-death experience," which lasted for 50 minutes. She described the following ketamine-induced transpersonal experience:

> My mind hastily left my body and I found myself in the heart of nothingness. There weas no space, no time, no movement, nothing at all. I knew I was dead and felt disappointed that I did not have a life review. As soon as I thought about the life review though, I started rapidly re-living my entire life. I saw my birth, re-experienced my early childhood and adolescence, witnessed my young adulthood, and re-lived again my motherhood.
>
> I also re-experienced all my sexual encounters and love affairs, viewing them not only from my personal perspective, but also from the point of view of my partners. I was gratified to know that my sexual behavior did not hurt my lovers at all. Quite to the contrary, I

learned that my lovemaking was the source of an intense pleasure for every one of my paramours and that my gift of sexual magic enriched their lives.

I then suddenly transcended into my previous lives and was shown that, from the beginning of Creation, I was made to be an amorous priestess of love, whose destiny was to enlighten people through sexuality. I did not feel that I was being judged whatsoever, and my shame and guilt were gone instantly. At that very moment I was swiftly transported into the brilliant light and felt the presence of my Creator. I sensed–with a great relief–that Creator is not a god of my mother, punishing and wrathful, but a benevolent god of my father - a unified force of Nature. I became clearly aware that death does not exist and recognized–without any doubts–I will be re-born again….

The following week, during her fifth session, W happily shared that her persistent pain and recurrent panic attacks were completely gone and she was able to discontinue taking both morphine and Lorazepam. She remained comfortable until her death seven months later and did not require treatment with either pain-killers or psychotropic medications. Her daughter later reported that during the time of her death W was peaceful and content, and that she died with dignity and smile on her face.

Case Study 2

L was a 46-year-old male who had developed a second attack of cancer. He had his first encounter with cancer at age 39, when he was diagnosed with bone cancer (chondrosarcoma of the left lower extremity). L underwent surgical treatment (amputation of the left leg) with follow-up chemotherapy and remained symptom-free for almost 7 years.

L developed painless jaundice 2.5 months prior to his treatment with ketamine-enhanced psychotherapy (KEP), followed by a diagnosis of advanced pancreatic cancer that at time of diagnosis had already became metastatic. He learned that for this type of cancer the median survival from diagnosis is around 3 to 6 months, and that the survival improvement with the combination of all available treatments is on the order of less than four weeks. L refused the most common surgical treatment for pancreatic cancers involving the head of the pancreas and declined both chemotherapy and radiotherapy. He was accepted by a hospice and it was at that point

that L requested KEP in order to accept his "dying and impending death."

L was raised by an interfaith couple. His father was a Buddhist who shared with L his beliefs in an "afterlife existence" and "reincarnation of soul." His mother was an atheist who did not believe in the existence of soul and afterlife; she taught L that "we came from the void and we are to go into the void." His parents divorced (due to his mother's infidelity) when L was 12 years old. He initially lived with the "party hardy dad" for 2 years and then moved to live with the "disciplinarian mom" for the next 4 years. He began living independently at age 18 and was self-sufficient from that point on.

At the age of 21, L married an older 34-year-old woman after the couple had dated for two years. They had one son, who was 24-years-old at the time of his father's terminal illness. Father and son had a very distant relationship, and L did not talk with his son for more than five years. L and his wife divorced six years after the consummation of the marriage due to his extramarital affairs. After the divorce was finalized, his wife was awarded primary custody of the child and L became a visitation parent. Once the couple divorced, they stopped communicating with each other.

L was a "hermit" and lived in the "deep country" in his own rustic dwelling with a breathtaking view of a lake and tropical jungles. He had lived alone since age 26 and supported himself by growing and selling cannabis. Although he had been dealing illegal substances for many years, he never had any trouble with law or authorities.

L started using alcohol at age 15 and began smoking tobacco at 16. Alcohol was never his "cup of tea," as he used it only a few times a year and eventually stopped drinking after age 26. L also stopped smoking tobacco when he turned 29 (he used to smoke 4-5 cigarettes, 3-5 times a week). His drug of choice became cannabis, which he started using at age 15 and continued to use daily, both smoking and eating, throughout the remainder of his life. L was consuming anywhere from 1 to 2 ounces of cannabis per week. He also "experimented" with psychedelic drugs and liked them very much, having "tripped" on LSD more than 200 times, "magic mushrooms" more than 500 times, and "peyote" more than 50 times. On several occasions, he also tried DMT, PCP, and MDMA.

At the time of his KEP, L was taking morphine, 20 mg. 6 times a day, and Xanax, 2 mg. 6 times a day.

was also smoking cannabis, 10-12 "joints" a day, and in addition, was eating 3-4 "brownies" a day (he increased the consumption of cannabis to more than 2 ounces per week and moreover started consuming potent hydroponically-grown "super weed"). L was offered the option to stop cannabis and decrease the doses of both CNS Depressants (opiates and Benzodiazepine) in order to increase the chance of a positive transcendental experience during KEP; however, L opted to continue taking the above combination of psychotropic substances.

L had three preparatory sessions in the comfort of his own home on a one-to-one basis, each session lasting from 75 to 80 minutes. L then undertook KEP, with the session lasting about 3 hours. L described his ketamine-induced experience as follows:

As soon as drug started working, my mind separated from my body and, in turn, started going into oblivion. I realized I am dying and a strong fear of non-existence completely overwhelmed me. My mind was finally gone and I was sucked into an infinite ocean of unconditional sorrow. Some part of me–the one of an observer–continued existing; however, it began decaying as well. I died as a human many times, each time from different causes, somehow re-incarnating again, each time regressing on a lower level. I then started dying and re-incarnating as a mammal, again regressing from higher forms to lower ones, next as a bird, after that as a fish, and so on, until I became a primordial protoplasm, at which point I blacked out. Only when the drug stopped working did I recognize that I was still alive. It was the worst bummer (a bad "trip") I've ever had….

During the last follow-up session L continued verbalizing his horror of disintegration all through his frightening experience of stepwise regression from existence to non-existence. Although he used the word "re-incarnation" (most likely a residue of his father's religious beliefs), L utilized this word to describe a slow and painful death, not a proof of life after death. He also repeatedly stated that he "now knows for sure his mom was right when she taught there is no life after death." L was offered additional follow-up sessions; however, he declined any further treatment. L continued using his drug cocktail in escalating doses and died less than 2 weeks after our last session–alone, disheveled, and soiled–probably from the accidental overdose of the CNS depressants.

Conclusion

Due to ketamine's availability for off-label medical use in the US, its short duration of action that fits well into the current delivery system, and its long history of successful clinical applications in treating a variety of mental health problems outside of the US, it presents itself as an ideal psychedelic to research the effectiveness of psychedelic psychotherapy in the US. In addition to biochemical mechanisms that might explain its possible efficacy for treating a wide range of psychological/psychiatric problems, its presumed ability to reliably replicate experiences that are to a large extent similar to NDEs provides a plausible transpersonal mechanism for its possible efficacy. Due to its relationship to NDEs, ketamine may be particularly helpful for treating death anxiety in those with terminal illnesses, namely by providing an opportunity for a direct experience of personal existence as a non-physical being that aids decision-making and powerful experiential shifts in attitudes toward death and dying. In addition, NDEs are well known to induce dramatic psychological transformations in people, so ketamine-induced NDEs may also have the potential to successfully help dying people overcome their existential anxieties as well as to treat various psychological problems, addictive illnesses, and psychiatric disorders. It should be pointed out, however, that we believe a ketamine-induced psychedelic experience has no beneficial effect in and of itself. In fact, when ketamine is used in uncontrolled settings recreationally, it can lead to significant medical problems (Ricuarte, 2005). We firmly believe that the therapeutic relationship, as well as set (i.e., patient's expectations toward the experience) and setting (i.e., context surrounding the experience), are paramount to the effectiveness of ketamine-enhanced psychotherapy (KEP). In order for the KEP sessions to cause positive transformative experiences, it is extremely important to carefully prepare patients for the KEP session, to attentively supervise them during the session, and to provide psychotherapy after the session to facilitate the integration of the ketamine-induced transpersonal experience and to help patients personally accept insights gained during the KEP session. Previous work by Krupitsky and Grinenko (1997) demonstrated the added value of ketamine above and beyond set and setting; the control group of the patients with the same set and setting who were injected with a placebo did not gain the same benefits as compared to the group of patients

receiving ketamine. For these reasons KEP is a specific psychotherapeutic technique structured to incorporate the therapeutic relationship, set, and setting to achieve maximal benefits.

In a previous paper some of us reported that clients who failed to respond well to ketamine treatment of alcoholism seemed to have a history of severe control issues and/or persistent difficulties in maintaining long-term interpersonal relationships (Kolp et al., 2006). From the first case study presented in this paper, we at least partially attribute the woman's positive treatment outcome to the fact that she never tried any psychedelics previously (a novelty factor) and had positive expectations or set toward it. She was also willing to stop benzodiazepine while decreasing her use of opiates, which made the experience stronger. On the other hand, from the second case study we hypothesize that the man's negative treatment outcome was due at least in part to his extensive history of psychedelic use (i.e., it was just "another bad trip" for him) and his unwillingness to stop, or at least decrease, his sedative medications (benzodiazepine and opioids) before the ketamine session. It is noted that both of these CNS depressants diminish an individual's response to ketamine and can cause amnesia of the event. They may also negatively affect ketamine-induced transpersonal experiences due to over-sedation. Therefore, we recommend reducing or eliminating use of these substances by patients prior to any future therapeutic clinical applications of ketamine. Perhaps they should now even be considered as a possible contra-indication for ketamine-enhanced psychotherapy. In addition to set and setting, we also learned from these two patients, as well as from some of our prior research with alcohol abusers, that the novelty of the psychedelic experience may be salient for successful problem resolution. Psychedelics are indeed a unique class of drugs that produce intense effects unlike those of other drugs–and one's first "trip" can therefore be a profound and life-changing experience (as common wisdom says, "there is no second chance for the first impression"). For those with extensive histories of psychedelic use, however, there is a diminished chance that a ketamine experience will be all that unique and transformative, whereas for the novice psychedelic user, given proper set and setting, the experience can be profound.

Consequently we conclude that KEP used adjunctively within a carefully crafted set and setting does appear to be a promising technique for successful

resolution of anticipated grief for patients in the US. Of course, with informally gathered case studies and no use of control groups or blinds (i.e., placebos), nothing definitive can be concluded about the generalized effectiveness of KEP from these observations. In addition, any possible conclusions are further compromised because these data were presented and analyzed in a retrospective manner without the benefit of written records to substantiate them. Nevertheless, based on the solid research on ketamine's usefulness in psychotherapy conducted by several international research studies, it is interesting to speculate that KEP may be successfully used in this way within the US for AGR. Additionally, the case studies strongly suggest that a transpersonal explanation for KEP's possible efficacy may be warranted along with biochemical explanations.

In order to explore the possible usefulness of KEP in the US more fully, beyond what appears to be some initial clinical success (and suggested limitations) made by Kolp in his practice, we note it is crucial to replicate these results in larger, well-controlled studies. We have designed the protocol of a prospective single-site, double-blind, placebo-controlled, randomized, parallel group clinical trial of the efficacy of KEP for treatment of existential anxieties in hospice patients with end-stage cancer. Following patient selection and consent procedures, it is planned that clients will receive one session with ketamine or placebo on the fourth sessions of standard outpatient treatment with outcomes measured at baseline before KEP and then one, three and six months following discharge. One unique aspect of our planned study is that we explicitly hypothesize that transpersonal factors, such as changes in level of self-expansiveness (Friedman, 1983) and spirituality (MacDonald, 2000), are among the essential mechanisms in KEP's possible efficacy and we intend to carefully measure transpersonal variables in a standardized fashion, along with other important factors.

Another potential area of future research is to explore the similarities between ketamine-induced NDEs and NDEs triggered by natural causes, such as from injuries, strokes, heart attacks, epileptic seizures, low oxygen levels, low blood-sugar levels, and other similar factors. Perhaps one useful strategy for future study would involve the administration of a psychedelic dose of ketamine to persons who have previously had a "natural" NDE. Psychological measures collected before the administration of ketamine in order to determine some

baseline information about the past NDE, along with the same measures collected after the ketamine-induced NDE, could be used to compare both experiences.

The fact that ketamine is an FDA approved pharmaceutical and can now be legally prescribed off-label does circumvent many of the prejudicial concerns against conducting research that affects most other psychedelics in the US. Ketamine's lawful availability avoids the complex bureaucratic morass that must be navigated in researching other psychedelic substances, a process in which simply obtaining stringently restricted drugs for research purposes can take years to negotiate. In addition, the recent lifting of the ban on formal research on psychedelics in the US, which has opened the way for a number of important psychedelic studies that are now being conducted at major US universities (Friedman, 2006), leads to an exciting opportunity for expanding the already impressive line of therapeutic studies utilizing ketamine for treatment of addictive and mental disorders. Further, the recent study conducted by investigators at the National Institute of Mental Health (Zarate et al., 2006) reporting ketamine's positive effects among treatment-refractory patients with major depressive disorder adds to the legitimacy of examining ketamine's psychotherapeutic potential. The possible importance of psychedelics may lie in their ability to foster transpersonal experiences and not just on their neurobiological effects (Friedman, 2006). If transpersonal experiences can be further demonstrated both to be reliably produced through psychedelics, including ketamine, and to have salutary effects, this could dramatically change the way that many psychological and psychiatric conditions are treated. This could have broader social implications, such as a diminishment of the fervor, stemming in part from the fear of powerful transpersonal experiences, that at least partially contributes to the war on drugs now vigorously pursued within many contemporary Western societies.

In regard to using ketamine to treat death anxiety, given the current mandate for outcome-based treatments that are time-limited as dictated by third-party payers, further research into exploring the potential of ketamine is very important. In addition, in this era of non-clinical constraints based upon financial interests, the possibility of developing an effective treatment approach that is cost-effective, limited to a few sessions, and that facilitates the reduction of costly restrictive drugs while simultaneously alleviating pain and increasing peace, has tremendous

appeal. Whether the intrinsic value of psychedelic therapies is viewed from the financial aspect or from the more humane aspect, we believe there is tremendous value in pursuing further research that may alleviate the pain of those suffering with the final emotional hurdles of surrendering both peacefully and mindfully to the inevitable.

Endnotes

1. "The appropriateness or the legality of prescribing approved drug for uses not included in their official labeling is sometimes a cause of concerns and confusions among practitioners. Under the Federal Food, Drug, and Cosmetics (FD&C) Act, a drug approved for marketing may be labeled, promoted and advertised by the manufacturer only for those uses for which the drug's safety and effectiveness have been established and which FDA has approved. These are commonly referred as "approved uses." This means that adequate and well-control clinical trials have been reviewed and approved by FDA. The FD&C Act does not, however, limit the manner in which a physician may use an approved drug. Once a product has been approved for marketing, a physician may prescribe it for uses or in treatment regimens of patient populations that are not included in approved labeling. Such "unapproved" or, more precisely, "unlabeled" uses may be appropriate and rational in certain circumstances and may, in fact, reflect approaches to drug therapy that have been extensively reported in medical literature. The term "unapproved uses" is, to some extent, misleading. It includes a variety of situations ranging from unstudied to thoroughly investigated drug uses. Valid new uses for drugs already on the market are often discovered through serendipitous observations and therapeutic innovations, subsequently confirmed by well-planned and executed clinical investigations. Before such advances can be added to the appropriate labeling, however, data substantiating the effectiveness of a new use or regimen must be submitted by the manufacturer to FDA for evaluation. This may take time and, without the initiative of the drug manufacturer whose product is involved, may never occur. For that reason, accepted medical practice often includes drug use that is not reflected in approved drug labeling. With respect to its role in medical practices, the package insert is informational only. FDA tries to assure that prescription drug information in the package insert accurately and fully reflects that data on safety and effectiveness on which drug approval is based." (FDA Notice, 1994, n.p.)

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Reports of Transpersonal Experiences
by Non-Native Practitioners
of the Native American Sweat Lodge Ceremony:
A Critical Appraisal

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Interviews with 30 experienced non-native practitioners of the Native American sweat lodge ceremony revealed 184 reports of transpersonal experiences. Interview questions sought to (a) disclose how practitioners discern or critique their own experiences, (b) consider alternative explanations for practitioners' experiences, and (c) critically reflect on the sweat lodge ceremony per se as a spiritual practice. It was found that practitioners generally (a) interpreted their experiences as trustworthy interactions with a spiritual reality, (b) did not seriously consider alternative explanations for their experiences, and (c) neglected to reflect critically on the sweat lodge ceremony per se as a spiritual practice.

Non-native participants in the Native American sweat lodge ceremony sometimes report transpersonal experiences. The purpose of this paper is to (a) disclose how practitioners discern or critique their experiences, (b) consider alternative explanations for practitioners' experiences, and (c) critically reflect on the sweat lodge ceremony per se as a spiritual practice.

Background

Hibbard (2007) conducted a qualitative interview study of 30 experienced non-native practitioners of the Native American sweat lodge ceremony. The essential purpose of the sweat lodge is to provide a place and context for purification, healing, and petitionary prayer, that is, to draw in and incur spiritual favor (Bucko, 1998). Through purposively identifying and interviewing key practitioners (i.e., sweat lodge leaders and senior practitioners), ten subjects were selected from each of three different lodges, representing different traditions and from different parts of the country, including Montana, Texas, and Arizona. Practitioners included 17 females and 13 males, ranging in age from 27 to 65 with an average of 50. The number of sweat lodge ceremonies participated in ranged from 80 to 1000 with an average of 271, and the years of sweat lodge practice ranged from 8 to 33 with an average of 18. The transcribed interview data revealed 184 reports of transpersonal experiences

which occurred during an estimated 8,126 ceremonies. A qualitative data reduction and content analysis identified 31 types of transpersonal experience that were reduced to 17 categories. Major categories include: encounter experiences (e.g., experiencing the presence of or communicating with spirit beings), psychoid experiences (e.g., physical spiritistic phenomena and healings), visual phenomena (e.g., seeing lights and forms in the hot rocks), visions; feelings of connectedness, channeling, intuitive knowings about participants, leaving the physical body, sympathetic resonance with the earth, and feeling beyond/greater than one's normal self. (For a complete description of the research method and resulting taxonomy of transpersonal sweat lodge experiences, see Hibbard, 2007.)

Practitioners' Self-Critique of Their Experiences

The possibilities for self-deception in interpreting one's experience are legion; therefore, critical reflection is necessary. This may be especially true with non-native practitioners of the Native American sweat lodge ceremony. D. Rothberg (personal communication, May 29, 2003) noted that, whereas some Eastern spiritual traditions have "internal processes for discernment, often built into the student-teacher relationship," non-native sweat lodges may lack such an internal evaluation system. Therefore, the task of such discernment for

practitioners in non-native lodges—at least in lodges that lack a genuinely trained and experienced sweat lodge leader—falls on the practitioner.

To disclose how and to what extent practitioners discerned or critiqued their own experiences, each subject in the study was asked a series of interview questions that probed (a) the meaning of their experiences, (b) how they account for or explain their experiences, (c) how they evaluate their experiences, (d) how seriously they take their experiences, and why, (e) whether they trust their experiences, and why, and (f) if they doubt their experiences, and why or why not. Each interview question and a summary of findings follows.

What does your experience mean to you?

Practitioners had difficulty addressing the meaning of their experiences. Specifically, 14 of 30 (47%) had something to say in this regard; the remainder had no idea.

Transpersonal sweat lodge experiences mean different things to different practitioners. In general, however, most believe that such experiences, as one said, are "evidence of a spiritual reality that we can communicate with in the sweat lodge." Similarly, another practitioner stated that her experiences are an "affirmation of my belief in a spirit world, a validation of a spirit world that I can interact with." And another stated, "In a very tangible way it means that our prayers are answered." A few practitioners stressed the practical value of their experiences. One practitioner stated:

> There's an old Ojibwa medicine man who I heard say that religion is no good if it doesn't help you grow corn. In other words, that it helps you live here today. So, for me, my spiritual experiences in the sweat are helpful in seeing the bigger spiritual nature of things, but I often go back into my daily life with a different perspective. . . . For me it makes living easier and more rich. . . . For me this information is immediately practical; it's not pie in the sky theoretical stuff, it's really useful right away.

To others, their experiences meant that "there is some kind of help outside myself that I cannot see." And one practitioner stressed that her experiences meant that

> we are more than we think. When we tune into that otherness you heal into a wholeness that's just beyond

you. It means that every time something like that happens to you you have a deeper understanding of what's on the other side, those other dimensions.

The general sentiment, however, when asked about meaning was summed up well by a 58-year-old man: "We are connected to the sacred."

How do you account for or explain your transpersonal experience in the sweat lodge; that is, what do you think is its cause or source?

Twenty-eight practitioners (93%) had something to say regarding an accounting or explanation for their experiences, although several admitted that they simply did not know: "I have no explanation," or "I honestly don't know." A few others confessed: "I don't dwell on it thinking that I need to figure it out." "I don't know and I don't care. I don't question it. They are all gifts of grace. They are, they just exist." "I don't try to explain it. I just accept it for what it was." And the oldest practitioner, a 65 year old with a terminal degree, stated, "My intent is not to explain it. It's part of the mystery that we can't fathom."

Similarly, several believe that science is of little or no help in explaining their experience. For instance, one person with two masters' degrees suggested:

> My own personal attitude about science is that it's a myth; it's a crude scaffolding that attempts to wrap itself around reality to give us a sense of understanding about the unknowable. It's a great tool but it does not describe reality. Based on that bias, I think that science has become the cosmology of our time and that the general public uses science as a way to explain their reality, so they will keep coming back to science to validate truth. They will look for scientific explanations to explain things. I don't care to give a scientific explanation. I don't use my spiritual practice to prove that science is true, and I don't need science to prove that my spiritual practice is true.

However, the majority of practitioners ventured an explanation for their experiences. In general, most invoked some type of spiritual explanation. For instance, a Jesuit initiate believes that his experiences are "a response from the Creator to our prayers. It's a way the spirit beings communicate with [us], an affirmation of what we're doing." Similarly, a man with a master's degree in philosophy stated:

I believe that the Creator's helpers are always present to us, are always trying to communicate with us, are always trying to help us and bless us, and the reason we do ceremony is so that we can get ourselves into a place where we're prepared to listen. When I get into the lodge it knocks down my defenses, or softens me up physically and spiritually, so I feel like I'm more receptive. The Creator's blessings are always there for us and we do the sweat to cleanse ourselves of the things that get in the way, but also to make us more receptive. We are a less than perfect receiving instrument, and the sweat is a gift given to us so that we can let go of all the things that get in the way of us receiving those blessings and hearing what the Creator's helpers are trying to tell us.

Another practitioner believes that

the source of the transpersonal experiences is the spirits who have a bond with the spiritual leader conducting the sweat and compassion for the people who are requesting the prayers.

Yet another believes that "the sweat lodge ceremony raises one's spiritual energy which makes one more permeable to spirit, so that means that you can connect with your own inner counsel." And others use the metaphor of alchemy: "The sweat lodge is an alchemical container, a crucible in which people can transform."

What's your evaluation of your experience?

Twenty practitioners (67%) weighed in on this question. In general, they regard their experiences as real. "I consider my experiences completely true," is a representative response. Furthermore, practitioners do not want to discount their experiences; most take them literally, not symbolically, and they consider themselves quite sane. "I don't feel I'm delusional," is a general sentiment. One well-educated practitioner explained it this way:

Mental illness looks different than this. In mental illness, if somebody is schizophrenic and hallucinating and delusional, there will be no events in the world that will confirm their delusion. It's purely in their heads. When it's a spiritual experience, things happen in the physical world that show you the validity that what you saw in a vision or dream, or what you experienced, was not just in your head, but

that there was a true event of power happening that was not you. That's been my general experience.

Furthermore, most practitioners are struck by the reality of their experience. For instance, one was adamant that "I'm not imagining it. . . . It's as real as the person next to me."

How seriously do you take your experience? Why?

All but one said that they take their experiences seriously, most extremely so. "As seriously as I take this interview with you," said one, "It's a real experience to me." Similarly, another said, "They're very real from my point of view. It's not a matter of belief; it happened." And another: "As seriously as I take that coffee cup on the table. They're real. They're in a different category, but they are real."

Why do practitioners take their experiences seriously? "Because," as one said, "it's firsthand experience. There's no intermediary between me and spirit." Another said, "Because I receive relevant information that is immediately understandable."

Do you trust your experiences? Why?

All but two practitioners said that they trust their experiences. When asked why, they gave an assortment of reasons. Some simply have faith in their sweat lodge experiences. An older practitioner and lifelong seeker said, "Because my transpersonal experience is finally leading me to some understanding." Others do not believe them unless they get concrete verification in the outside world. Several trusted their experiences because they were shared experiences (e.g., two practitioners had the same experience of seeing a hawk inside the lodge). Another practitioner said,

I trust my experience because it's not unique; people across generations and cultures have come to the same kind of conclusions. Another reason I trust my experiences is that they work; there's payoff in the real world.

And lastly, a lifelong devotee and personal friend of the East Indian adept, Sai Baba, said:

I trust my experience in the sweat lodge because it lets me rise to my practice. Since being involved in spiritual pursuits since 1967 I've learned to judge on my own integrity what's right and wrong, to not

vary my own integrity, and the sweat lodge allows me to keep that completely. It never asks me to do something that I wouldn't do. It has no demands on my life like so many religious practices, such as you need to be celibate to be a priest. The sweat asks none of those things; it just asks you to be a human being and be fully human.

Have you ever doubted your experience? Why or why not?

Even though 93% of practitioners trust their experiences, a full 80% entertain doubts regarding at least some of their experiences. As one practitioner said, "Not the ones that really jolt me, but certainly I doubt others." Commented one practitioner, "As a human being you wonder if they really happened." A few others consider more rational explanations for phenomena, such as the lodge shaking ("It could've been that someone was shaking the lodge"), and seeing things in the glowing rocks, or seeing lights ("I see faces in the rocks, but I don't think it's transpersonal. I think it's my imagination. I see lights but I don't think they're really lights. I think I just get tracers when I close my eyes and move my head"), and seeing spirit animals ("It might be due to my imagination"). Other practitioners doubt their experiences if they do not get confirmation or verification in the physical world.

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**Alternative Explanations
for Practitioners' Experiences**

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For the purposes of this study, nothing within the totality of the practitioners' experience was excluded from investigation, even though, as Harman and deQuincey (1994) noted, "not all claims may be ultimately verified" (p. 15). For example,

> Mystic claims to union with transcendent reality must at some point be evaluated in terms of critical theory concerning that reality. . . . After all, the *noetic* claims of mystics at some point are right or wrong, and critical theory must evolve to evaluate such claims." (Hood, 1985, p. 293)

Whether the self-reports of practitioners generated in this study are right and not wrong, they will have to survive certain critical challenges in the form of alternative explanations.

What follows is my assessment of a number of alternative explanations for practitioners' reports of their experiences. The assessment is based on my subjective impressions gained during the one-on-one, face-to-face interviews (which ranged from one to three hours) and while participating in a sweat lodge ceremony with each of the subjects.

Psychological

Some classic psychological theorists link transpersonal experiences with psychopathology; that is, as symptoms of pathological, even schizophrenic, regression (Alexander & Selesnich, 1966), "mystical descent" to pre-verbal, undifferentiated states (Prince, 1974), depersonalization (Signer, 1988), or affective disorders (Masson & Masson, 1978).

Another psychological explanation is that transpersonal experiences are more ordinary experiences misinterpreted. For instance, regarding mystical experiences, classic theorists have analyzed them as "experiences of union *misinterpreted* by those who would think they have been united with an ultimate transcendent reality" (Hood, 1985, p. 286, italics his). Similarly, Stace (1960) conjectures that "mystics may be mistaken in their interpretations of their experiences" (p. 15). In other words, there is a probability that some practitioners are self-deluded in believing that they experienced transpersonal phenomena in the sweat lodge; that is, their "transpersonal experience" may not be transpersonal at all, but have a more conventional explanation. For instance, practitioners' reports of seeing something meaningful in the glowing rocks may be a projection, weather changes may be coincidental, channeling may be communications with one's unconscious, or hearing voices may be an internal production of one's psyche, to name a few possibilities.

Yet other psychologists credit transpersonal experiences to illusion and suggestibility. During his work with Lakota medicine men, Lewis (1990) marveled at ceremonial participants' "willingness and even eagerness to suspend critical judgment. Participants in ritual demonstrate . . . suggestibility and participate voluntarily in illusion" (p. 42). For example, Lewis describes night sings in which

> the flashing blue sparks are obviously produced by a wheel-and-flint cigarette lighter. The shaman and audience, however, identify the lights as manifestations of spirit helpers. 'The spirits make the lights,' says the medicine man, and we all agree, 'Huh!'" (p. 42)

Similarly, a consultant on this study, R. West (personal communication, May 12, 2003), who lived 24 years with

the Blackfoot Nation in Montana, witnessed a Native American sweat lodge leader surreptitiously sprinkle grated lighter flints on the fire to create sparks, which he said were spirits, and which the participants readily believed. And the "shaking" lodge (which most attribute to spirits) may often be due, as West mused, to "a dog leaning against the lodge scratching fleas."

Tart (1972/1973) cautioned that illusions and misperceptions are enhanced immensely in some altered states of consciousness (ASC), often to the point that they seem perfectly real, even though they may actually be "purely arbitrary imaginings" (p. 56). This problem may be compounded by "the fact that one person's illusion in a given ASC can sometimes be communicated to another person in the same ASC so that a kind of false consensual validation results" (p. 57).

I did not detect a link between any reported experiences of the sample practitioners and psychopathology; however, there is a high probability that at least some experiences were misinterpreted. In fact, one astute practitioner commented, "You have to be really careful about misinterpreting your experience. I mean, hearing voices is problematic." Similarly, the many reports of visual phenomena, such as seeing lights, may be attributed to more mundane causes (e.g., phosgene stimulation), rather than the "presence of spirits" (the usual explanation). The common experience of seeing meaningful things, such as faces, in the glowing hot rocks is, as observed by a psychiatrist practitioner, very "Rorschachy," in the same way people project meaning into an ink blot. Also, in light of Tart's (1972/1973) "false consensual validation" (p. 57) via mutual ASCs, what is one to make of the several shared transpersonal experiences in sweat lodges reported by practitioners, such as the presence of a hawk or an extremely malevolent force? On the surface, shared experiences lend credibility to the "reality" of the phenomena, but the reality may be that they are shared "arbitrary imaginings" (p. 56).

There certainly was an obvious tendency "to want to believe" the transpersonal. Also, as observed by R. West (personal communication, May 12, 2003), there certainly is a "willing suspension of disbelief in the mini-theater we call the 'sweat lodge,' just as with whiteman's theater in which disbelief is dropped for a few hours and resumed sometime thereafter." This willing suspension of disbelief is a double-edged sword; it makes one not only suggestible and gullible, but also open to the possibility of the transpersonal.

Psychoanalytic

The orthodox psychoanalytic tradition regards many transpersonal states as a regression to infantile primary narcissism. (This tradition is distinguished from more progressive and generative psychoanalytic traditions, such as Jung's, which regard transpersonal experiences positively.) For example, Freud (1930/1961) acknowledged that some people have "a sensation of eternity, something oceanic," a feeling of "connection with the surrounding world" (p. 2). Although he never had the experience himself, he interpreted this feeling as an essentially regressive, pathological state, the persistence of an infantile consciousness without which some people are not strong enough to endure life.

Of the 184 reports of experiences in this study, only a dozen bore any similarity to Freud's (1930/1961) description of regression to infantile primary narcissism; that is, "a sensation of eternity, something oceanic," a feeling of "connection with the surrounding world" (p. 2). For example, some practitioners experienced a feeling of connectedness, or the melting of boundaries, or a sympathetic resonance with the earth, or being part of a divine universe. These experiences, however, are valued highly and reported to have a positive effect on the practitioners' psyches and lives, and did not appear to be pathological regressions to infantile consciousness. Consequently, in terms of the pre/trans fallacy (discussed below), I believe that the practitioners' experiences appeared to be transpersonal and not prepersonal, as Freud would suggest.

Physiological

Transpersonal experiences are explained sometimes in terms of altered physiological states. For example, Paper (1990) argued that the altered states of consciousness experienced by sweat lodge practitioners are caused by "partial sensory deprivation, combined with dehydration, hypoxyventilation, auditory driving and other trance-inducing neurophysiological factors" (p. 92).

Without question, sweat lodge participants are subjected to extreme physiological conditions, as personally witnessed in sweat lodges with each of the sample groups. These conditions include: sensory deprivation (i.e., total darkness), extreme heat, dehydration (some traditions do not allow drinking water until after the ceremony), oxygen deprivation (some lodges are very small or very crowded, and nearly

airtight), and fasting (some practitioners, at least on occasion, fast before sweats). These conditions likely have many effects on participants' consciousness and may explain certain experiences.

Even if the physiological explanations for transpersonal experience are true, they are only partially so. Several practitioners reported experiences that happened before the sweat lodge ceremony even began. For instance, a woman said she clearly saw her biological grandfathers in the lodge before the rocks were even brought in or the door closed. "It wasn't because it was dark, or because I was fasting, or because I was hot, or because the shadows were playing tricks on me," she noted. "All the things that I could make up to explain why this happened were taken away."

Psychobiological/neuropsychological

Psychobiologists and neuro-psychologists offer a biological explanation for transpersonal experiences. They argue that the brain is the biological substrate for consciousness; brain processes cause mental experiences. Biological correlates, then, are considered the *real* underlying basis of conscious states, whether mundane or transpersonal. In other words, to produce a specific biological state is to produce a corresponding conscious state. The extreme form of this argument, according to Tart (1979), posits that since consciousness is a product of brain function, transpersonal experiences are illusory and delusional.

As one example, Mandell (1980) explained transpersonal experiences as the result of the failure of regulatory mechanisms maintaining steady-state function, an artifact of "going beyond the normal limits of the mechanisms of adaptation" (p. 387). Transpersonal experiences, then, are regarded by this psychobiological viewpoint as "adaptational failures." Specifically, Mandell identified neurobiochemical mechanisms that result in various transpersonal experiences, including: (a) neurochemical changes induced in the dopaminergic neural systems leading to runaway excitation of certain brain functions; (b) arrested cell firing and uptake of tryptophan, which may account for the intensification of affectual states; (c) the hyperexcitation of hippocampal CA_3 cells leading to hippocampal-septal synchronous discharges and ecstatic emotional flooding; and (d) the sudden loss of hippocampal inhibitory influence on the reticular arousal system along with the loss of comparator function which result in a dissolution of ego boundaries,

a sense of "unity" or "luminescence," and the association of "insight" with "ecstasy."

As other examples, d'Aquili and Newberg (1993) described a detailed mechanism for the neurophysiological basis of meditative experiences. Newberg and d'Aquili (2000) advanced

a neurobiological analysis of mysticism and other spiritual experiences [which] might elucidate the continuum of these experiences by allowing for a typology based on the underlying brain functions." (p. 260)

And Persinger (1987) argued that such experiences– what he calls "God Beliefs"–"should be correlated with normal, transient electrical perturbations of the human temporal lobe" (p. 16) triggered by psychological and physiological factors.

As with the physiological explanations for transpersonal experience, the extreme conditions of the sweat lodge may produce certain alterations in brain processes that cause the "transpersonal" condition. Although this may explain some experiences, it would not explain all. For instance, it would not explain the reports of extraordinary physical healings (e.g., an allegedly documented case of curing cancer), changing the weather (e.g., making it rain during a drought or snow in August), or physical spiritistic phenomena (e.g., a hot rock flying out of the fire pit, a bucket of splash water flying around the lodge, or being hit by large bird wings that flap around inside the lodge).

Self-fulfilling expectations

Practitioners bring certain beliefs to the sweat lodge which, in some cases, may have the effect of self-fulfilling expectations. For example, if practitioners believe that the sweat lodge is a place to encounter "spirits," such an encounter subsequently may be "experienced."

The interview data revealed that most practitioners believe that the sweat lodge is a place to encounter "spirits." This belief may explain the high incidence of encounter experiences reported; that is, practitioners believe that there is a likelihood of encountering "spirits," therefore they do. This is not surprising given that, as some argue, transpersonal experiences are fully mediated and shaped by the language, culture, doctrinal beliefs, and soteriological expectations of the traditions in which they occur (e.g., Katz, 1978). In other words,

tend to experience and report what is cultivated by their traditions.

Set and setting

According to Grof (1994), *set* and *setting* are crucial variables influencing the outcome of LSD psychotherapy:

> The term *set* includes the expectations, motivations and intentions of the subject in regard to the session; the therapist's or guide's concept of the nature of the LSD experience; the agreed-upon goal of the psychedelic procedure; the preparation and programming for the session; and the specific technique of guidance used during the drug experience. The term *setting* refers to the actual environment, both physical and interpersonal, and to the concrete circumstances under which the drug is administered. (p. 102)

Similarly, the set and setting surrounding the sweat lodge might be important variables influencing the frequency and type of experiences elicited. Without question, practitioners bring certain expectations, motivations, and intentions (e.g., to have a spiritual experience), the leader has a certain concept of the nature of the experience (based on study and past experience), there may be an agreed upon goal for the ceremony (e.g., the healing of a specific malady), both practitioner and leader undergo certain preparations for the ceremony (e.g., fasting), and use a specific technical protocol during the ceremony (e.g., rituals, songs, prayers), all of which influence the practitioner's experience in manifold ways. For instance, as noted above, the overall set of the sweat lodge ceremony predisposes practitioners to have encounter experiences.

Similarly the setting of the sweat lodge ceremony certainly encourages transpersonal experiences. I well remember my first sweat lodge with a Native American elder and medicine man: the ritualized gathering of willows and rocks, prayerful construction of the lodge and sacred fire, the preparatory prayers and invocations, then entering the lodge for the ceremony itself. The ceremony is enchanting, immersed in the womb-like darkness, the red hot rocks the only light, sitting on Mother Earth, the smell of sweet grass and sage, the rhythmic drumming and chants and soulful prayer in native tongue, the near scorching steam on my skin. It all certainly predisposes and encourages transpersonal experience. However, beyond this generalization, I found no association

between setting–which ranged from rural to urban and traditional to eclectic–and the frequency and type of experience.

Personalities of participants and leaders

As Grof (1994) noted, the personalities of the subject and therapist in LSD psychotherapy are crucial variables influencing the subject's experience. Similarly, the personalities of sweat lodge participants and the personality of the ceremonial leader may be important variables influencing the type of experiences. For instance, the experience of suggestible practitioners likely would be influenced by the personality of a charismatic leader in the direction of the leader's belief system.

My limited contact with both the sweat lodge leaders and participants precludes any specific observations about their personalities. However, practitioners in all three groups expressed considerable admiration for their respective ceremonial leaders and, as will be discussed later, generally exhibited an uncritical acceptance of their teachings. (The study did not disclose whether practitioners were generally uncritical, or whether some of them initially subjected their leaders to scrutiny and found they passed.) Consequently, the experience of practitioners did appear to be influenced by the personalities of the leaders in the direction of the leaders' belief systems. Interestingly, several practitioners independently commented that they believed that the ceremonial leader was very important in influencing peoples' experience, however, they were not able to articulate specific examples.

Demand characteristics

The demand characteristics (Orne, 1962) of the ceremony (i.e., an implicit pressure to experience something transpersonal) may encourage practitioners to "experience" transpersonal occasions that they actually did not experience, or inflate experiences beyond what really occurred. For instance, some sweat lodge ceremonies begin with the invocation of various "spirits," which may encourage some practitioners to "experience" their presence. Similarly, the demand characteristics of the interview situation may encourage some subjects to report experiences that they really did not have, or exaggerate or misinterpret them. For example, several practitioners reported having "visions," but after probing their experience further, I determined that they were not visions but visualizations, because they lacked the requisite intensity and vividness characteristic of visions.

Self-esteem needs

Intrinsic, often subconscious, self-esteem needs (Hales, 1985) of practitioners may influence some to report nonexistent experiences or inflate experiences. In other words, some practitioners' self-esteem may depend on having an "experience" to report, or they may want to please the interviewer or make themselves "look good."

To mitigate the potential self-esteem need to exaggerate one's transpersonal sweat lodge experience, I took precautions during each interview "to make it okay" not to have had such an experience (e.g., by admitting that I have never had one during a sweat lodge ceremony). However, this is not to say that a few practitioners may not have inflated their experience. In fact, several appeared to be "fishing" for some experience to report, even if it was not transpersonal, such as enhanced dreamwork and sensory awareness. Overall, however, I was impressed with the apparent honesty of the sample practitioners and believe that they gave truthful reports.

Whether the interpretation of the reports of transpersonal experiences of practitioners of the sweat lodge ceremony ultimately survive these alternative explanations, it is my position that the experiential reports in this study are interesting in and of themselves and, in the tradition of radical empiricism, are data worth investigating and reporting. Therefore, the reported transpersonal experiences of sweat lodge practitioners were assumed to refer to experiential realities; that is, as experientially real to the practitioners. And, it should be acknowledged that even if these alternative explanations are true, the sweat lodge ceremony still has positive value for practitioners.

Critical Reflections on the Sweat Lodge Ceremony as a Spiritual Practice

Just as practitioners' reports of transpersonal experiences should be reflected on critically, the practice of the sweat lodge ceremony per se should be as well. Based on my personal experience with and observations of the three lodges represented in the sample, I attempted a preliminary critical reflection on the sweat lodge ceremony per se relative to several criteria.

Pre/trans fallacy

The sweat lodge ceremony, as practiced by Euro-Americans, can be examined in light of the *pre/trans fallacy*. The pre/trans fallacy, according to Wilber (1996), refers to a confusion of prerational realms with

transrational realms (which ostensibly lie on a linear, vertical continuum or spectrum):

> Because the prerational and transrational realms are, in their own ways, nonrational, they appear similar or even identical to the untutored eye. This confusion generally leads to one of two opposite mistakes: either the transrational is *reduced* to the prerational (e.g., Freud), or the prerational is *elevated* to the transrational (e.g., Jung)." (p. 248)

It is important to note, however, that Grof (1988) found fault with Wilber's seemingly linear conception of the pre/trans fallacy which, in Grof's opinion, forces Wilber to regard pre-egoic states as regressive, and trans-egoic states as progressive. Based on his four decades of clinical research into nonordinary states of consciousness, Grof believes that "spiritual evolution typically does not follow a direct linear trajectory [as Wilber maintains], but involves a combined regressive and progressive movement of consciousness" (p. 113). As a result, Grof advocates *regression in service of transcendence*, a "spiral trajectory" in which consciousness enfolds or bends back into itself on the way to the unfoldment of a higher integration. In fact, contrary to Wilber, Grof believes that "regression to earlier stages of evolution is absolutely essential" (p. 112).

Whatever the case, there is a seductive tendency–especially among New Age enthusiasts, a fact to which I can attest to from personal experience and observation–to elevate prerational practices and experiences to transrational. Regarding the sweat lodge ceremony, my general observation is that practitioners uniformly believe it to be a transpersonal practice (even though few may consciously articulate it as such or use that term). I concur with Wilber's (1995) suggestion, however, that it is not the practice per se, but the level of consciousness of the practitioner that is the crucial variable; that is, practitioners of the same practice (e.g., the sweat lodge ceremony) may have experiences ranging from the prerational and prepersonal to the transrational and transpersonal. Regardless, Zimmerman (1998) cautions that "everyone involved in such practices should be aware of the pre/trans fallacy and the danger of confusing prepersonal with transpersonal states" (p. 199). Vaughan (1987) agreed, cautioning that "it would be useful to determine whether participation in the group promotes pathological regression to prepersonal states or healthy, authentic transcendence of ego" (p. 269).

I was troubled by the fact that virtually no one in the sample was aware of the pre/trans fallacy, let alone Zimmerman's and Vaughan's cautions. Regarding the prerational and prepersonal, I did witness a considerable lack of rational, critical thinking and evaluation regarding practitioners' experiences, as well as tendencies towards magical and mythical thought. For instance, regarding magical thought, many practitioners accept uncritically the animistic Native American belief that all things are alive and conscious (although what natives and non-natives mean by "alive" and "conscious" may differ), and that their mental intentions (e.g., prayers) are able to magically alter the physical world. Regarding mythical thought, many practitioners accepted the mythology of their particular tradition without reflecting rationally on their reasons for doing so. Additionally, many practitioners uncritically referenced the works of Castaneda, McGaa, and Andrews. At best, these works are controversial and, at worst, discredited (e.g., see DeMille's, 1976 and 1980, critiques of Castaneda; Churchill's, 1992, critique of McGaa; according to B. Secunda, personal communication, July 27, 2003, and J. Kremer, personal communication, December 6, 2004, Andrews' material apparently is a fictionalized retelling of stories told to her by indigenous informants).

Similarly, there was a considerable lack of rational, critical thinking and evaluation regarding the sweat lodge per se as a spiritual practice, and a clear tendency of practitioners to regard it as a sacred, protected space in which only good can happen. Typical was a proclamation by one senior practitioner and sweat lodge leader: "Malevolent forces are not possible in the sweat lodge." To which R. West (personal communication, May 12, 2003) replied, "She's out of her mind. Anybody who thinks that the sweat can't be used for malevolent purposes is uninformed; they have no clue." According to West's personal experience, the sweat lodge, particularly in Indian Country, is used often for sorcery and the most venal purposes. Additionally, it is claimed that some people die during sweat lodge ceremonies (V. Deloria, personal communication, March 23, 2003), and they can push psychologically unstable individuals over the edge. For instance, a sweat lodge leader described the following: "At the end of this one lodge I was leading, this guy was vomiting, shitting, and totally not there, nobody home, he was babbling like a child. It was scary." Clearly, the sweat lodge is not solely beneficent. It is a potentially powerful spiritual technology that can be used for multiple purposes (not all good) with uncertain outcomes.

Regarding the transpersonal experiences reported by practitioners, there was a high incidence of experiences (e.g., encounter experiences of various types) that Grof (1988) places in the higher transpersonal levels (i.e., psychic and subtle) of his taxonomy. However, no experiences were reported that would correspond to the highest transpersonal levels (i.e., the causal and absolute).

Authenticity and legitimacy

Wilber (1983) would argue that the sweat lodge in general, and each specific lodge in particular, should be adjudicated as a religious practice according to its authenticity and legitimacy. *Authenticity* is a determination of a religious practice's "relative location of the developmental hierarchy of structuralization. Is this 'religious involvement' archaic, magical, mythical, rational, psychic, subtle, causal" (p. 123)? Authenticity, then, is a vertical measure of a religious expression's level of developmental sophistication, hence a measure of its transpersonal transformative power. *Legitimacy*, is a horizontal measure of

> how well the particular religious engagement is serving stability and integration *within* the group itself (content legitimacy) and *between* the group and its broader society background (context legitimacy)." (p. 127)

My observation is that the level of developmental sophistication or authenticity of the sweat lodge depends first and foremost on the level of developmental sophistication of the ceremonial leader, and not the sweat lodge per se. For instance, a ceremonial leader steeped in magical thought (e.g., animistic beliefs) tends to encourage and elicit the same in his lodge participants. Secondly, as noted above, a crucial variable is the level of developmental sophistication of the practitioner; some tend to be prerational, others rational, a few transrational, and they experience the sweat lodge accordingly.

Spearman rank order correlation coefficients showed that there was no significant correlation between the incidence of transpersonal experience and the number of sweat lodge ceremonies participated in or the number of years practiced (Hibbard, 2007). In other words, the incidence of experiences does not increase with practice. The data showed that experienced practitioners

were no more likely to have experiences than those less experienced. In fact, the reverse seems to be true, possibly, as one practitioner conjectured, "Much of the sweat's power may be how different it is from ordinary waking life," and that difference is most striking early on. Also, practitioners' experiences came full-blown; that is, they did not develop over time. Additionally, the three people in the sample whom I know the best and respect the most, who had apprenticed seriously under a genuine Native American sweat lodge leader for many years and ostensibly were in an ideal position, time, and place to have transpersonal experiences, had the least number of such experiences. These findings indicated that there is no apparent developmental sequence, which suggests that the sweat lodge practice lacks transpersonal transformative power, and hence authenticity. If this is true, it may be because the sweat lodge ceremony is essentially a sporadic, exoteric religious practice, a primary purpose of which is to pray for spiritual intercession. It is not a regular, contemplative, esoteric practice, a primary purpose of which is transpersonal development.

That being said, it is significant to note that the data suggest that the sweat lodge encourages "mid-level" transpersonal experiences. That is, when compared to Grof's taxonomy–which is arranged developmentally and hierarchically from "lower" to "higher" transpersonal experiences–the reports of transpersonal sweat lodge experiences fall in the mid-third (i.e., there were no reports of experiences corresponding with Grof's bottom ten or top nine subcategories). This could simply mean that the practice of the sweat lodge is most relevant to those at this range of development. Or, if the sweat lodge is a relatively stage-specific practice–as many transpersonal practices are–those not yet "ready" for it would not show up or stick around, and those who had gained what they needed would move on.

Regarding legitimacy, the lodges represented in this sample appear to serve stability and integration within the group (content legitimacy) to a high degree. To a lesser degree they appear to serve stability and integration between the group and society (context legitimacy). For example, a few practitioners reported that their sweat lodge experience actually helps them integrate their spiritual lives within society. And, far from retreating from society, all of the study's subjects were either gainfully employed (many with professional careers) and involved with family, social obligations,

and community work. The subjects struck me as being decent people and good citizens who have chosen the sweat lodge as their spiritual practice.

Participatory vision

Ferrer (2002) advanced a non-evolutionary transpersonal theory–which he calls "a participatory vision of human spirituality"–in which transpersonal phenomena

> can be more adequately conceived not as individual inner experiences, but as participatory events that can emerge in the locus of an individual, a relationship, a collective identity, or a place." (pp. 2-3)

The participatory vision, Ferrer argued, is a more permissive and pluralistic understanding and model of human spirituality than the perennialism advanced by Wilber and others. Perennialism, Ferrer charged, is rather dogmatic and intolerant towards indigenous worldviews, regarding them as either inauthentic, merely exoteric, or less evolved than perennialism's impersonal, nondual monism. Furthermore, the participatory vision (as well as traditional Native American worldviews) would find fault with Wilber's pre/trans fallacy and authenticity measures described previously because they are based on a hierarchical model of spiritual givens that the contextualist critique (e.g., Katz, 1978) regards as untenable.

Instead of evaluating religious engagements against perennialist spiritual absolutes, or the degree to which they foster personal transpersonal experience, Ferrer argued that they be evaluated on their ability to help practitioners overcome delusions and ignorance, achieve liberating discernment and practical wisdom, and "stabilize spiritual consciousness, live a spiritual life, and transform the world accordingly" (p. 37). To what degree the sample sweat lodge practitioners have overcome their delusions and ignorance, or achieved liberating discernment and practical wisdom, is unknown. Most practitioners would claim, however, that the Native American beliefs and worldview that they adopted helps make their life experience more meaningful and understandable. Whether that is due to overcoming delusion and ignorance, or achieving liberating discernment and practical wisdom, is open to question. It may be that one set of delusions and state of ignorance have been exchanged for others, and any sense

of liberating discernment and practical wisdom may be more illusory than real. That is, it can be argued that traditional native beliefs and worldviews, in general, are prerational, not transrational, and therefore need to be transcended, not invoked, to further the course of one's conscious development (Wilber, 1995). Regardless, there is no doubt that the majority of practitioners take their sweat lodge practice very seriously and incorporate the worldview of their tradition which, it seems, helps them stabilize spiritual consciousness (whether prerational or transrational), live a spiritual life, and at least influence, if not transform, the world around them accordingly.

Charismatic/technical, one-level/two-level, monistic/dualistic

The question is: How does one determine if the sweat lodge one is involved with is an authentic spiritual engagement? One such attempt, the Anthony Typology, "is a conceptual framework designed to assist in assessing the spiritual validity and helpfulness as well as the potential harmfulness of a broad range of groups and leaders who claim to offer higher consciousness, enlightenment, salvation, or transformation" (Anthony & Ecker, 1987, p. 36). The Anthony Typology rates a spiritual group or religious engagement along three descriptive dimensions that allows the group or engagement to be rated according to its likelihood of being problematic. As described by Anthony and Ecker, the *one-level/two-level* dimension refers to one-level religions that focus on manifest reality as the arena of salvation, whereas two-level religions focus on a transtemporal liberation. The *charismatic/technical* dimension refers to charismatic religions that center on the personality of the leader, whereas technical religions center on techniques and practices. The *monistic/dualistic* dimension refers to monistic religions that believe that all are ultimately One with the Godhead, whereas dualistic religions believe that only a select few can reach the Godhead. Problematic groups tend to be one-level, while positive groups tend to be two-level. Charismatic groups tend to be more problematic than technical groups, and dualistic groups tend to be more problematic than monistic groups. The worst possible combination, then, is one-level/charismatic/dualistic. The best possible combination is two-level, technical, and monistic.

Regarding the three lodges in the sample, they all appeared to be two-level, technical, and monistic, therefore relatively unproblematic according to the Anthony Typology. That is, the lodges believed in the possibility of transtemporal liberation via a pluralistic and egalitarian experience of the Great Mystery through the conduct of a ritualized, ceremonial practice. The lodges did not believe in the salvation of a select few in this manifest reality via the aegis of a charismatic leader.

Healthy vs. unhealthy spirituality

Vaughan (1991) acknowledges the importance of healthy spirituality in life, but addresses its negative shadow side which is all too tempting to ignore or overlook. Similarly, Battista (1996) examined the question of when spiritual beliefs, practices, and experiences are healthy or unhealthy.

For the sweat lodge to be a positive or healthy spiritual experience, Vaughan and Battista would counsel that practitioners need to proceed with a vigilance for the "shadow side," not only in themselves, but the leaders as well. In essence, practitioners need to be alert to Battista's

> relevant distinction . . . between spiritual practices and beliefs that further the development and transformation of personality, and spiritual practices and beliefs that have been incorporated into a psychopathological personality that resists them." (p. 251)

The former is "true" or transformative spirituality and the latter is "false" or defensive spirituality. *False spirituality*, according to Battista, takes two forms. The first, *spiritual defenses*, "refers to spiritual beliefs that keep people from expressing their actual, embodied, emotional self" (p. 251), such as spiritual beliefs that are incongruent with the expression of anger. The second, *offensive spirituality*, is "the narcissistic use of a spiritual persona or spiritual identification" (p. 255), whether by teacher or student. For example, the teacher may abuse the teacher-student relationship or misuse his or her authority for personal gain. And the student may assert that he or she "is spiritually evolved, hence entitled to special rights and privileges that others should recognize and support" (p. 258).

There is certainly ample opportunity for either of these forms of false spirituality in conjunction with the sweat lodge. Overall, I found that the three lodges promoted the sweat lodge ceremony as a personally transformative process by encouraging, giving expression to, and integrating one's shadow. One practitioner

described it as "finding one's voice." In regards to spiritual defenses, the lodges at least allowed for, and one actively encouraged, the cathartic contact with and expression of one's actual, embodied, emotional self. One lodge in particular even encouraged the expression of anger.

Regarding offensive spirituality, one of the three sweat lodge leaders clearly was guilty of the narcissistic use of a spiritual persona to elevate himself above his students and use that privileged position for personal gain in the form of spiritual status and monetary reward. His students seemed to be either blind to, in denial of, or rationalizing this blatant abuse of authority. The other two leaders were the embodiment of humility and compassion.

Vaughan outlined other forms of unhealthy spirituality, that also may be exhibited by sweat lodge leaders and participants. In general, the shadow side of otherwise healthy spirituality "is based on wishful thinking and the abdication of personal responsibility" (p. 106). Specifically, the shadow side may manifest as (a) an escape from reality or an avoidance of the pain and difficulties of ordinary life, (b) avoidance of self-responsibility by surrendering to an outside authority, (c) repressing, denying, and avoiding psychological problems, (d) self-deception and denial of the shadow, (e) inflation of spiritual insights, (f) ego inflation and projection of the negative shadow, and (g) replacing worldly ambition with spiritual ambition and making claims of spiritual specialness.

Regarding Vaughan's many concerns, any of these signs of unhealthy spirituality may be present in individual sweat lodge practitioners. For example, I witnessed a disturbing tendency among some practitioners to ascribe to the leaders more spiritual power and authority than they actually possess. A commonly shared belief among the three lodges was expressed well by one practitioner: "He is a very powerful shaman." Exactly what is meant by this, and on what evidence this judgment is based, I do not know; however, I strongly suspect that there is considerable infantile projection of omniscience onto the leaders. Also, due to the fact that a primary purpose of the sweat lodge ceremony is petitionary prayer to the "spirits," I noticed a tendency on the part of some practitioners to avoid self-responsibility by wishfully praying for magical intervention of some powerful outside spiritual entity–which is to say that infantile desire for the omnipotent parent also is problematic. Additionally, I witnessed some spiritual ambition and inflation of spiritual insights which

led to feelings of spiritual specialness. I did not, however, detect any serious flights from reality or avoidance of psychological problems. To the contrary, the majority of practitioners claimed to be using the sweat lodge to facilitate psychological healing and personal growth. However, just as practitioners need to be on guard against the pre/trans fallacy and the ever-present problem of mistaking the prerational for transrational, they need to be on the lookout for these many signs of unhealthy spirituality.

On the other hand, practitioners should be on the lookout for signs of healthy spirituality as well. In general, healthy spirituality, according to Vaughan (1991), "supports personal freedom, autonomy, and self-esteem, as well as social responsibility. It does not deny our humanity or depend on suppression or denial of emotions" (p. 116). Specifically, Vaughan identified many other characteristics of healthy spirituality, including: (a) becoming one's own authority, trusting one's own inward sense and intuition, and the ability to evaluate spiritual teachings and teachers, (b) taking responsibility for one's own beliefs and practice, (c) examining spiritual assumptions in the light of reason and experience, not dogma, (d) respecting individual rights and different forms of worship, (e) enhancing creativity, compassion, authenticity, insight and forgiveness, (f) letting go of the past and facing our fears, making peace with ourselves, and liberating ourselves from egocentrism, (g) acknowledging and working towards integrating one's own shadow and a willingness to perceive and confront the ways in which one's personality is defensively or inauthentically constructed, (h) encouraging moderation, modesty, humility, (i) fostering a healthy ego structure and personal integrity, (j) reducing fear and anxiety, (k) opening one's heart and mind, (l) increasing kindness, love, and compassion, (m) fostering a commitment to truth, authenticity and personal responsibility, (n) encouraging community involvement, and (o) cultivating an attitude that is inclusive (rather than exclusive), self-reliant, and discerning. All of these signs of healthy spirituality were evidenced by at least some practitioners. In general, I was impressed with their maturity and sincerity, and most claimed to use the sweat lodge as a therapeutic tool to do inner psychological work.

Spiritual practices and psychological problems

Early transpersonal psychotherapists, such as Assagioli and the Grofs, have "noted the association between spiritual practices and psychological problems"

(Lukoff, 1997, p. 32). These problems may include: (a) spiritual emergencies (Grof & Grof, 1989), (b) spiritual addictions (e.g., attachments to altered states, pseudo-realizations, attractive illusions, and/or attachment to suffering as spiritual merit) (Vaughan, 1991), (c) psychological problems engendered by mystical experience (Lukoff, Lu, & Turner, 1996), (d) religious or spiritual problems concurrent with mental disorders (e.g., alcohol and drug abuse, obsessive-compulsive disorder, and psychoses) (Lukoff, Lu, & Turner, 1996), (e) the often problematic experience of kundalini (Scotton, 1996), and (f) certain religious problems, including

> loss or questioning of faith, change in denominational membership or conversion to a new religion, intensification of religious beliefs and practices, and involvement with a new religious movement or cult. (Lukoff, Lu, & Turner, 1996, p. 234)

None of the subjects reported having a spiritual emergency, kundalini experience, or psychological problem engendered by their sweat lodge transpersonal experience. A few subjects commented that it was a loss or questioning of faith that was instrumental in them turning to the sweat lodge, and a few others expressed disillusionment with the sweat lodge. Beyond this, however, the interviews did not elicit enough information to determine if any practitioners suffered from spiritual addictions or religious or spiritual problems concurrent with mental disorders.

Conclusion

The most noteworthy yet troubling finding for me in this research was the profound lack of critical reflection by practitioners on their experiences, especially given their high level of education and maturity (i.e., 27% BAs, 30% MAs or MSs, 17% Ph.D.s, and an average age of 50). As noted, without critical reflection the possibilities for self-deception in interpreting one's experience are legion. In the absence of such reflection, practitioners of the sweat lodge ceremony (or any spiritual practice, for that matter) cannot honestly adjudicate their experiences to be genuine, that is, not attributable to any number of alternative explanations. Similarly, without serious critical reflection practitioners cannot discern if the sweat lodge ceremony per se–and more specifically their particular lodge–is for them a transrational, authentic, legitimate, and healthy spiritual practice.

This notwithstanding, for most of the study's subjects, their practice of the sweat lodge appears to fill a spiritual hunger left unsatiated by conventional religiosity or spirituality and serves as an important transformative, spiritual practice. As one practitioner commented, "Overall, just the experience of being in the sweat lodge has changed me. I'm very different now than when I began."

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Does the Concept of "Altered States of Consciousness" Rest on a Mistake?

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Block (2002) has argued that the multiplicity of meanings ascribed to consciousness is due to the erroneous treatment of very different concepts as a single concept. Block distinguished four notions of consciousness intended to encapsulate the various meanings attributed to the term: phenomenal, access, self, and monitoring consciousness. We argue that what is common to all of these definitions is the implicit distinction between consciousness and the content of consciousness. We critically examine the term "altered state of consciousness" and argue that affixing the qualifier "altered state" to consciousness results in a theoretical confusion of consciousness and its content, that is, consciousness is mistaken for the content of consciousness. We refer to this as the consciousness/content fallacy and argue that it may be avoided if one supplants "altered states of consciousness" with "altered pattern of phenomenal properties," an extrapolation of the term "phenomenal field." Implications of the consciousness/content fallacy for theory and research are also considered.

Chalmers (1995) suggested that, "There is nothing we know more intimately than consciousness, but there is nothing harder to explain" (p. 200). Although psychologists and philosophers of mind are engaged in intricate debate over the concept of "consciousness" (e.g., Antony, 2002; Block, 1995; Chalmers, 1996, 2002; Lormand, 1996; Natsoulas, 1978, 1983; Rosenthal, 2002; Silby, 1998), there exists a lacuna in the literature with regards to a critical analysis of the distinction between consciousness and the content of consciousness inherent in definitions of the term consciousness and the intimately-related so-called "state" of consciousness. Similarly, scholars have neglected to delineate the kind of fallacious reasoning whereby a shift from the key definitional elements of the term consciousness to states of consciousness is accompanied by a theoretical confusion of consciousness and the content of consciousness. We refer to this as the consciousness/content fallacy.

The purpose of this paper is to elucidate the aforementioned fallacy and provide an attempt at resolution. We proceed by reviewing numerous definitions of consciousness and argue that they all exemplify a commonality with regards to the implicit distinction between consciousness and the content of consciousness. Secondly, the consciousness/content fallacy is explicated through an analysis of the concept of states of consciousness. Finally, the consciousness/content fallacy is examined with reference to the concept of "altered states of consciousness" and, subsequently, a solution to the fallacy is proposed.

It is noteworthy that there exist instances in which the key definitional elements of the term consciousness are held to be conscious awareness and unconscious functioning (Krippner, 1972) or simply conscious awareness, attention, and memory (Farthing, 1992). The present paper, however, is concerned with the concept of consciousness as the "cognizor" of objects (e.g., internal and external events) and the fallacy that occurs when a shift from the term consciousness to states of consciousness is accompanied by a confusion of consciousness with the content of consciousness. Consequently, for the purpose of the present paper, only the conscious awareness component of the concept of consciousness will be considered.

Consciousness and Content

Forman (1996) stated that the inherent difficulty associated with providing an adequate definition of consciousness is due in part to the multiplicity of meanings ascribed to the term. Block (2002) suggested that this multiplicity of meanings is due to the erroneous treatment of very different concepts as a single concept. For example, in an influential series of articles Block (e.g., 1995, 2002) distinguished a number of notions of consciousness: phenomenal, access, self, and monitoring consciousness.

Block (2002, p. 206) stated that phenomenal consciousness (p-consciousness) refers to one being aware of "experiential properties of sensations, feelings and perceptions...thoughts, wants and emotions." In contrast, access-consciousness (a-consciousness) is a non-phenomenal notion of consciousness. An entity exemplifying a-consciousness is one who is aware of information "poised for direct rational control of action" (Silby, 1998, p. 3). Block (2002) suggested that self-consciousness (s-consciousness) is illustrated by "me-ishness." An s-conscious entity is one that is aware of the concept of the self and that one's usage of this concept (explicitly or implicitly) in thinking about oneself also reveals s-consciousness. Consciousness may also be conceptualized as an internal monitor, that is, monitoring consciousness (m-consciousness). Block suggested that an entity may be m-conscious of inner perceptions, internal scanning, and metacognitive thoughts resulting in entering a particular cognitive state.

A commonality exemplified by the preceding notions of consciousness is that, "When people are conscious, they are always conscious of something. Consciousness always has an object" (Benjafield, 1992, p. 58).[2] For example, one may be p-conscious of phenomenal properties, a-conscious of information that may be invoked to control actions, s-conscious of one's self-concept, or m-conscious of, for example, internal scanning. Benjafield's contention is by no means novel. Indeed, over a century ago Husserl argued that, "All consciousness…is consciousness of something" (cited in Sartre, 1958, p. Ii). Similarly, Sartre himself asserted that consciousness always attends to a "transcendent object" and is thereby precluded from being phenomenologically contentless (p. 629). Sartre referred to this type of consciousness as "positional self-consciousness." Sartre stated that:

> All that there is of *intention* in my actual consciousness is directed toward the outside, toward the table;

all my judgments or practical activities, all my present inclinations transcend themselves; they aim at the table and are absorbed in it. Not all consciousness is knowledge (there are states of affective consciousness, for example), but all knowing consciousness can be knowledge only of its object. (p. Iii)

A survey of the cognitive psychology literature further supports Benjafield's (1992) contention. In brief, cognitive psychologists (e.g., Matlin, 1998; Nairne, 1997; Solso, 2001) tend to define consciousness as the awareness of internal and external events (e.g., mental phenomena and stimuli in the environment, respectively). In contrast, others limit the definitional boundary of consciousness to "the subjective awareness of mental events" (e.g., Westen, 1999, p. G-4). It is arguable that these assertions constitute the core of consciousness concepts in cognitive psychology today. Commenting on the definition of consciousness as being aware of something, Natsoulas (1978) wrote: "It is arguably our most basic concept of consciousness, for it is implicated in all the other senses" (p. 910).

The salient point exemplified by the preceding descriptions of consciousness is the distinction between consciousness and the content of consciousness. For example, Block's (2002) phenomenal consciousness is not composed of experiential properties such as sensations and perceptions (contents of p-consciousness), but rather refers to one *being p-conscious* of experiential properties such as sensations and perceptions.

Confusing Consciousness and Content

As stated above, consciousness is often defined as awareness of internal and external events (e.g., Matlin, 1998; Nairne, 1997; Solso, 2001) or merely awareness of something (e.g., Natsoulas, 1978). In contrast, a so-called state of consciousness (SoC) tends to be defined as "[the set] of mental episodes of which one can readily become directly aware" (p. 912). While definitions of consciousness typically distinguish consciousness from the content of consciousness, the preceding definition of SoCs represents a theoretical confusion of consciousness and its contents by explicitly stating that a SoC is the content (i.e., mental episodes) available to conscious awareness. That is, when the qualifier "state" is affixed to consciousness, "it" [consciousness] is held to be content. Consequently, the term states of consciousness rests on a conflation of consciousness and content whereby consciousness is erroneously categorized in terms of content rendered

perceptible, presumably, by itself. Again, we refer to this as the consciousness/content fallacy.

Implicit in the consciousness/content fallacy is the fallacious notion that during a SoC, consciousness may observe its own qualities. For example, a privileged observer would only be conscious of the fact that he or she was experiencing a particular SoC (i.e., that consciousness exemplified state-like properties), if consciousness could observe its own properties. However, one cannot directly experience the conscious awareness process, CA1, which functions to render an object perceptible because this would require the postulation of a second conscious awareness process, CA2, necessary to render CA1 a perceptible object, thus, committing one to a vicious regress.

Furthermore, others (e.g., Feinberg, 2001; Kant, 1781/1933; Vasu, 1979) have argued that consciousness cannot directly experience "itself" as a perceptible object, for then it would cease to be the subject.[3] Wilber (1993) stated that the circumstance is analogous to a sword that cannot cut itself, an eye that cannot see itself, a tongue that cannot taste itself, or a finger that cannot touch its own tip. This argument has been reiterated in Baladeva's commentary to the *Vedanta sutras of Badarayana* in which he wrote, "If the Self could perceive His own properties, He could also perceive Himself; which is absurd, since one and the same thing cannot be both the agent and the object of an action" (Vasu, 1979, p. 331). Similarly, in the *Brihadaranyaka-Upanishad* it is stated that, "You cannot see the seer of sight, you cannot hear the hearer of sound, you cannot think the thinker of the thought, you cannot know the knower of the known" (Swami & Yeats, 1970, p. 138). As Kant (1781/1933) argued:

> I cannot know as an object that which I must presuppose in order to know any object, and that the determining self (the thought) is distinguished from the self that is to be determined (the thinking subject) in the same way that knowledge is distinguished from its object. (p. 365)

A variant of the consciousness/content fallacy may be found in Pekala's (1991) statement that, "By consciousness I mean one's awareness of one's subjective experience, including both the processes of being aware and the various contents of the awareness" (p. 1). That is, Pekala contended that consciousness is both "one's awareness of one's subjective experience" *and* "the various contents of the awareness" (p. 1). Consequently,

rather than committing the consciousness/content fallacy via a movement from a definition of consciousness to a definition of SoCs, Pekala has implicitly conflated consciousness and content within the context of a single definition.

The Consciousness/Content Fallacy with Reference to Altered States of Consciousness

During the formative stages of humanistic and transpersonal psychology, Ludwig (1969), Krippner (1972), and Tart (1969) made contributions regarding the formulation of operational definitions pertaining to the concept of altered states of consciousness (ASCs). Decades later such definitions are still held by many to constitute the standard.

Ludwig (1969) defined an ASC as

> any mental state(s), induced by various physiological, psychological, or pharmacological manoeuvres or agents, which can be recognized subjectively by the individual himself (or by an objective observer of the individual) as representing a sufficient deviation in subjective experience or psychological functioning from certain general norms for that individual during alert, waking consciousness. (pp. 9-10)

Unfortunately, Ludwig's definition fails to clarify precisely what constitutes a "sufficient deviation in subjective experience" (pp. 9-10). Furthermore, the "general norms" held to be associated with normal waking consciousness are neither outlined nor explained.

In contrast to Ludwig (1969), Krippner (1972) has formulated a definition of ASCs that circumvents the problems associated with operationalizing the qualifying term "sufficient." Krippner (1972) defined an ASC as

> a mental state which can be subjectively recognized by an individual (or by an objective observer of the individual) as representing a difference in psychological functioning from the individual's 'normal' alert state. (p. 1)

Correspondingly, Tart (1969) defined an ASC for a given individual as one in which the person experiences a

> qualitative shift in his pattern of mental functioning, that is, he feels not just a quantitative shift (more or less alert, more or less visual imagery, sharper or duller, etc.), but also that some quality or qualities of his mental processes are different. (p. 1)

Examples of qualities may include visual hallucinations, alterations in space-time perception, reductions in discursive thought, and the dissolution of one's sense of self, and it can be argued that Tart's (1969) decision to include both quantitative and qualitative differences in cognitive functioning within the definitional boundaries of ASCs renders his formulation of the concept superior to Krippner's (1972) attempt at operationalization.

It is noteworthy that the preceding definitions postulate that it is the shifts, deviations, or differences in subjective experience (Ludwig, 1969), psychological functioning (Krippner, 1972), or mental functioning (Tart, 1969) that constitute an ASC. If one accepts the definition of an ASC as shifts, deviations, or differences in subjective experience, psychological functioning, or mental functioning, then it would seem to follow that ordinary consciousness is the baseline subjective experience, psychological functioning, or mental functioning. Furthermore, if an ASC did constitute the shifts, deviations, or differences in subjective experience, psychological functioning, or mental functioning, then a privileged observer would not be conscious of such shifts on the grounds that to be conscious of such shifts would necessitate that consciousness could observe changes in its own properties, that is, alterations held to constitute an ASC. Ludwig (1969), Krippner (1972), and Tart (1969) nonetheless emphasize that an ASC may be *subjectively recognized* by a privileged observer. Consequently, if these authors are using ASC as a subsidiary part of the notion of consciousness as one being conscious of something (e.g., an internal or external event), then they have confused consciousness and the content of consciousness on the grounds that consciousness is implicitly held to be both: (1) the cognizor of shifts in subjective experience, and (2) the shifts in subjective experience. If ASC is *not* being used as a subsidiary part of the aforementioned notion of consciousness, then the definition of consciousness that has been used to extrapolate a definition for ASC needs to be explicitly stated.

If one accepts the definition of consciousness as being conscious of something, then it would seem to follow that during an ASC it is the phenomenal properties that consciousness may be aware of that are altered (e.g., visual mental imagery, body image, time sense), rather than the *state* of consciousness. It is arguable, however, that phenomenal properties do not encapsulate the variety of mental phenomena that may be objectified by consciousness. For example, as previously discussed,

Block (2002) formulated the notion of access-consciousness whereby an entity is held to be conscious of non-phenomenal mental objects: information primed for the rational control of one's actions (Silby, 1998). Similarly, O'Brien and Opie (1997) suggested that "phenomenal experience" does not refer to objects associated with self-consciousness and access-consciousness (e.g., self-concept and information that may be invoked to control actions, respectively), but rather the "what is it like?" of experience (p. 269). For the purpose of this paper, however, Reber and Reber's (2001) definition of phenomenal field as "absolutely anything that is in the total momentary experiencing of a person, including the experience of the self" (p. 532) is adopted and applied to "phenomenal properties." It is arguable that if one defines phenomenal properties in this way, then an altered pattern of phenomenal properties encapsulates what has been referred to by Block (1995) and others (e.g., Lormand, 1996) as phenomenal and non-phenomenal objects of conscious awareness, that is, the content that a privileged observer may be aware of during what Krippner (1972), Ludwig (1969), and Tart (1969) referred to as an ASC.[4] One may then recommend that the term altered state of consciousness be supplanted by a new term, "altered pattern of phenomenal properties."[5, 6] It would seem that by reconceptualizing the notion of an ASC in this manner, the confusion of consciousness with the content of consciousness is avoided.[7]

The wide applicability of our proposed solution to the consciousness/content fallacy may be exemplified with respect to shamanic research. While the key definitional elements of the term "shamanic states of consciousness" are somewhat contentious, it is generally held that an integral feature of such states is the presence of highly organized, multi-modal (e.g., visual, auditory, gustatory, tactile) mental imagery that is consistent with a shamanic cosmology (e.g., Houran, Lange & Crist-Houran, 1997; Noll, 1983, 1985; Walsh, 1995). For instance, as an experimental participant's shamanic journey to the "lower world" progresses, extraneous visual mental images (i.e., distracting thoughts) may be supplanted by visual mental images of, for example, anthropomorphous spirit helpers, rivers, and predatory creatures. It is the qualitative alteration of visual mental images, rather than consciousness "itself," that contributes to a privileged observer's (i.e., an experimental participant) subjective recognition that a particular state is shamanic. Consequently, it would seem more appropriate to speak of shamanic patterns of

phenomenal properties rather than a shamanic state of consciousness.

Conclusion

This paper reviews numerous definitions of the term consciousness and argues that they all share the implicit distinction between consciousness and the content of consciousness. It is further suggested that definitions of the terms states of consciousness and altered states of consciousness erroneously conflate consciousness and content by explicitly defining SoCs as the content (i.e., mental episodes) available to conscious awareness. That is, when the qualifier "state" is affixed to consciousness, "it" [consciousness] is held to be content. This is referred to as the consciousness/content fallacy. It is also contended that the consciousness/content fallacy is avoided if one reconceptualizes an ASC as an altered pattern of phenomenal properties. Finally, the wide applicability of our proposed solution to the consciousness/content fallacy is illustrated with respect to shamanic research.

The consciousness/content fallacy has numerous theoretical implications. Theories of ASCs, for example, would be enhanced by supplanting the term altered states of consciousness with altered patterns of phenomenal properties. Theories containing the consciousness/content fallacy would need to be revised to avoid fallacious contentions such as consciousness is simultaneously: (1) the cognizor of shifts in, for instance, subjective experience, and (2) the shifts in subjective experience themselves. If a particular ASC theory did not incorporate the term altered states of consciousness as a subsidiary of the concept of consciousness as conscious awareness of something, then this would need to be explicitly stated. Fundamentally, ASC theories would need to be reformulated such that the phenomenon being explained is alterations in phenomenal properties rather than consciousness.

In addition, the consciousness/content fallacy has implications for quantitative and qualitative research. A researcher who is cognizant of this fallacy and wishes to develop a survey instrument to quantitatively measure, for example, meditation experiences, would construct items pertaining to alterations in phenomenal properties, rather than alterations in consciousness.[8] For instance, items such as "I experienced an extremely unusual state of consciousness" would be omitted in favor of items addressing a range of phenom-

enal properties (e.g., "My subjective time sense seemed to slow down," "My visual imagery became extremely vivid," "I felt great joy"). Similarly, consider a research situation in which, for example, an existential-phenomenological study of shamanic journeying experiences is conducted using semi-structured interviews for the purpose of obtaining non-numerical data that may be organized into comprehensive constituent themes. A researcher who is mindful of the consciousness/content fallacy would not pose open-ended questions about shamanic states of consciousness or alterations in consciousness. Instead open-ended questions pertaining to phenomenal properties would be asked (e.g., "Can you please tell me about the visual mental images that you encountered during your last journeying experience?"). We hope that this elucidation and proposed resolution of the consciousness/content fallacy will encourage consciousness theoreticians and researchers from diverse backgrounds to address its implications.

Endnotes

1. The authors wish to thank the Chair for the Study of Consciousness, Saybrook Graduate School and Research Center, for its support of this paper.

2. One notable exception is an unmediated form of mystical experience referred to as the pure consciousness event (PCE) (e.g., Almond, 1982; Bucknell, 1989a; Franklin, 1990; Kessler & Prigge, 1982; Matt, 1990; Perovich, 1990; Prigge & Kessler, 1990; Rothberg, 1990; Woodhouse, 1990). Forman (1990a) defined the PCE as "a wakeful though contentless (nonintentional) consciousness" (p. 8). A substantial body of evidence has been produced to support this claim. For example, Chapple (1990) reported that descriptions of kaivalyam in the Samkhya system and samadhi in the Yoga Sutras are suggestive of the "attainment of a purified consciousness that is beyond characterization" (p. 70). Griffiths (1990) surveyed the Indian Buddhist tradition and found evidence for a condition referred to as the attainment of cessation (nirodhasamapatti), which is defined as "the non-occurrence of mind and mental concomitants" (p. 78). Bucknell (1989b) suggested that the "third non-material jhana" encountered in Buddhist meditation is analogous to the introvertive mystical experience "in which both the thought-stream and sensory input have ceased, leaving zero mental content" (p. 19). Forman (1990b) examined the mystical theology of the Christian

mystic Meister Eckhart and concluded that Eckhart considered encounters with the Godhead to be "phenomenologically contentless" (p. 112).

3. For the purpose of the present paper, consciousness is not considered a subject in the literal sense of a thing that attends to objects, but rather a process of subjectivity that renders objects perceptible.

4. It is not uncommon for scholars to use the term "phenomenal" or "phenomenological" to denote objects that, for example, Block (1995) would categorize as non-phenomenal. For example, Pekala's (1991) use of the term "phenomenological experience" includes phenomena that Block would consider associated with self-consciousness (e.g., one's self as an object of consciousness).

5. It is arguable that because we are delimiting our consideration of the concept of consciousness to the conscious awareness component of consciousness, the term altered pattern of phenomenal properties should be qualified and replaced with *conscious awareness* of an altered pattern of phenomenal properties. However, the qualifier conscious awareness is superfluous because it is implicit in the key definitional elements of the term "phenomenal" as derived from the term "phenomenal field" (i.e., "absolutely anything that is in the total momentary experiencing of a person, including the experience of the self" (Reber & Reber, 2001, p. 532). Specifically, it may be argued that this "total momentary experiencing of a person" (p. 532) implies conscious awareness.

6. A pattern of phenomenal properties is held to be altered relative to a baseline pattern of phenomenal properties, that is, what is traditionally referred to as normal waking consciousness or an ordinary waking state. One may use, for example, a retrospective phenomenological assessment instrument referred to as the Phenomenology of Consciousness Inventory (PCI; Pekala, 1991) to investigate patterns of phenomenal properties. In fact, the PCI is held to quantify "both the major contents of consciousness, and the processes or means by which these contents are 'illuminated,' cognized, perceived, and so forth by consciousness" (Pekala, 1991, p. 82). The former is denoted by our use of the term phenomenal properties. The PCI consists of 12 major dimensions (e.g., positive effect, visual imagery, rationality) and 14 minor dimensions (e.g., fear, joy, altered body image). Each dimension is scored on a seven-

point Likert scale where 0 denotes no or little increased intensity values and 6 denotes much or complete (Pekala & Wenger, 1983; Pekala, Wenger, & Levine, 1985). The PCI possesses adequate psychometric properties. For example, Pekala, Steinberg, and Kumar (1986) reported coefficient alphas between .70 and .90 for all dimensions, suggesting that the PCI has a good internal consistency. In support of the scale's criterion validity, Pekala, Steinberg, and Kumar found that subjects exposed to different stimulus conditions received significantly different PCI scores. One may use the PCI data to construct graphs referred to as psygrams that diagram the patterns of relationships between pairs of phenomenal properties derived from a squared covariance matrix pertaining to a particular stimulus condition (Pekala, 1991). Previous research has used the PCI to investigate whether, for example, the phenomenology of trance postures is statistically significantly altered relative to a baseline stimulus condition of sitting quietly with eyes open (Woodside, Kumar & Pekala, 1997). Pekala, Wenger, and Levine (1985) also used sitting quietly with eyes open as their control condition, arguing that it elicits phenomenal properties congruent with normal waking consciousness.

7. Clearly, such logic may be extended to other states of consciousness. For example, the term shamanic states of consciousness may be replaced by a shamanic pattern of phenomenal properties, Buddhist states (e.g., jhanas) of consciousness by a Buddhist pattern of phenomenal properties, yogic states (e.g., samadhi) of consciousness by a yogic pattern of phenomenal properties, and so on.

8. Similarly, Krippner and Meacham (1968) have suggested that "it may make more sense to speak of the 'objects' of consciousness than to speak of the 'states' of consciousness" (p. 150). It is noteworthy, however, that this recommendation was not arrived at via a recognition of the consciousness/content fallacy, but rather the methodological difficulties associated with searching for a particular state – or altered state – of consciousness. For example, Krippner and Meacham (1968) asserted that:

> The concept of "altered states of consciousness" would be valid if each state brought about similar subjective reports and similar neurophysiological reactions on the part of most individuals. With the exception of sleep and dream states, and with the possible exception of the "alpha state," these subjective and objective similarities have not been consistently noted. (pp. 149-150)

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The Challenges, Prospects, and Promise
of Transpersonal Psychology

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Several substantial critiques remain a source of fractionalizing debate within transpersonal psychology, including the weakness of its definition, whether it is redundant with Wilber's integral psychology, whether it is a scientific field, whether it is too metaphysical, whether it neglects the problem of evil, and what contribution can it make to mainstream psychology. This article explicates these and related areas of critique and provides a response that identifies the essential challenges and future prospects of transpersonal psychology. The article also emphasizes the field's unique role as a potential bridge connecting psychological science with the transpersonal psyche in a way that can more fully recognize the importance of the latter.

Fractionalizing paradigm debates about the content of transpersonal psychology has led some scholars to question the field's relevance and viability as a psychology for the 21st century (Funk, 1994; Rothberg & Kelly, 1998; Washburn, 2003; Wilber, 2006, appendix 3). The purpose of this article is to join the continuing debate about the nature and character of transpersonal psychology by presenting what I consider to be the field's essential challenges, prospects, and promise, as well as to provide a partial, preliminary response to several substantive issues raised by critics of transpersonal psychology in recent years:

What exactly is a transpersonal psychology?

Is an exclusively psychological approach to the transpersonal sufficient or even necessary in light of Wilber's integral approach and the emergent field of transpersonal studies?

Is transpersonal psychology a scientific field, and if so, what is its relationship to religion and other related disciplines such as parapsychology and anomalous psychology?

Is transpersonal psychology too metaphysical? What kinds of ontological and epistemological assumptions are appropriate in transpersonal psychology, and do transpersonal experiences reveal actual transcendental realities?

Does transpersonal psychology neglect the problem of evil in its celebration of the "farther reaches of human nature"?

What effective contribution can an empirically-based transpersonal psychology make to mainstream psychology?

My goal is to assist the transpersonal community "articulate and embody the full range of its own vision" as advocated by Hartelius, Caplan, and Rardin (2007, p. 15) while keeping the field in connection with mainstream psychology instead of at its margins so that transpersonal psychology's unique role as a bridge connecting psychological science and transpersonal psyche can be more fully recognized, understood, and appreciated.

The answer to the problem of the fractionalizing paradigm debates within transpersonal psychology is not to forcibly translate the goals of transpersonal psychology into the theoretical language of the natural or social sciences or to impose "Great Chain of Being" philosophic concepts or similar theoretical models on our understanding of transpersonal development. The answer is also not to curtail our natural curiosity about the existence of transcendental realities, or restrict topics to be investigated to those amenable to laboratory demonstration. As Hilgard (1992) wrote in an article

with the telling title, Psychology as an Integrative Science versus a Unified One, "There is no point in forcing all interpretations to fit some standard or 'accepted' model" (p. 7). The same is true for transpersonal psychology.

What Is a Transpersonal Psychology?

Critique

One criticism of transpersonal psychology is that its multiplicity of definitions and the lack of operationalization of many of its terms have led to conceptual uncertainty about the content of the field. The fact that transpersonal psychology is not limited to any particular philosophy or worldview, does not limit research to a particular method, and does not limit inquiry to a particular domain has added to the confusion (Walsh & Vaughn, 1993a). The term "transpersonal psychology" is used differently by different theorists. As a result, the content of transpersonal psychology has come to mean different things to different people.

The careful textual analyses of the structure of implicit meanings in published definitions of transpersonal psychology have gone a long way to reduce conceptual confusion (e.g., Caplan, Hartelius, & Rardin, 2003; Hartelius, Caplan, & Rardin, 2007; Lajoie & Shapiro, 1992; Shapiro, Lee, & Gross, 2002). Definitions are often highly theory-ladened and embedded with ontological and epistemological assumptions about the nature of a reality that makes transpersonal phenomena possible and ultimately knowable (or unknowable) by the conscious mind. A number of transpersonal scholars affirm the spiritual universalism of the "Perennial Philosophy" (Huxley, 1944/1970; Valle, 1989; Vaughn, 1986). Others choose a constructive "participatory" approach that grants the existence of as many spiritual realities as there are individuals who experience them (Ferrer, 2002). Various transpersonal researchers influenced by the psychology of Psychosynthesis affirm that a Transpersonal Self exists (Firman & Gila, 2002), while others influenced by the philosophy and psychology of Buddhism deny the reality of any such identity (Aronson, 2004). Some theorists posit the notion of a "Great Chain of Being" as comprising the essential structure of transpersonal development (Wilber, 1977, 1980), while others prefer Whiteheadian process philosophy as a framework for understanding the transpersonal (de Quincey, 2002; Griffin, 1988, 1997). Several transpersonal scholars take a purely agnostic position regarding the transpersonal realm (Friedman,

2002; Nelson, 1990), while others accept the ontological reality of the transcendent (Lancaster, 2004). Still others prefer to "leave the field open for surprises and new discoveries" (Grof, 1998, p. 114).

The inability of textual analysis to completely capture the nuances of such philosophic contexts within which published definitions are embedded may result in an incomplete or misleading understanding of intended meanings. Given the multiple and diverse perspectives regarding the nature and character of transpersonal experience and development (e.g., agnostic, gnostic, atheistic, theistic, naturalistic, supernaturalistic), is there any common ground that binds us all as transpersonalists, despite differences in metaphysics or worldview?

Response

Whatever philosophy or worldview transpersonal scholars may prefer, they can find common ground in their affirmation of four key ideas articulated in the Articles of Association for Transpersonal Psychology:

1. Impulses toward an ultimate state are continuous in every person.
2. Full awareness of these impulses is not necessarily present at any given time.
3. The realization of an ultimate state is essentially dependent on direct practice and on conditions suitable to the individual.
4. Every individual has the right to choose his [or her] own path. (Sutich, 1972, pp. 93-97)

Impulses toward an ultimate state are continuous in every person

The first key idea that defines a transpersonal orientation asserts that every being comes into existence with inner ideals and values that seek fulfillment and with impulses to fulfill or actualize these ideals through a process called "self-actualization" (Maslow, 1968, p. 25). Moreover, each being seeks the greatest possible fulfillment and extension of its own abilities and interior system of "Being-values" in a way that benefits not only the individual, but also helps the species to fulfill those particular qualities that are characteristic of it (Maslow, 1964, appendix G). This inner directedness toward ultimate or ideal states of health, self-expression, and value-fulfillment is considered to be "instinctoid"– innate, natural, and biologically necessary in order to achieve physical health and growth and psychological vitality, peace, and joy (Maslow, 1971, p. 316).

When unimpeded by negative conditioning, suggestion, or belief, these transpersonal impulses toward ideal states of knowing and being engender in the individual a sense of safety, assurance, and an expectation that needs will be satisfied, abilities actualized, and desires fulfilled. Such impulses are evident in the existence of heroic themes and ideals that pervade human cultural life, in excellent performance in any area of endeavor, and at those times when the individual suddenly feels at peace, instinctively a part of events from which one usually considers oneself apart, unexpectedly happy and content with one's daily life, or spontaneously experiences an event in which one seems to go beyond one's self. Such "peak experiences" are often considered to be religious or spiritual events by the individuals who have them (Maslow, 1964, p. 59).

Full awareness of these impulses is not necessarily present at any given time

The second key idea recognizes that negative expectations and beliefs, fears and doubts, when multiplied and hardened, can begin to diminish the individual's awareness of his or her natural impulses toward the "farther reaches of human nature" (Maslow, 1971). Intrusions of a creative nature (e.g., unusual ideas, memories, mental images, bodily feelings, and impulses) that originate from other dimensions of actuality may be initially frightening to the individual, considered to be alien or "not-self" and dangerous, perhaps even signs of mental disturbances, and thus are automatically shut out. Transpersonal impulses continue to operate beneath the surface of conscious awareness whether the person is aware of them or not, but the conscious self is no longer able to perceive its own greater fulfillment, uniqueness, or integrity. The person becomes blind to other attributes with which he or she is naturally gifted and to which the impulses are intended to lead. Communications from the marginal, subliminal realms of consciousness are then permitted to emerge into conscious awareness only during sleep, in dreams, or in instances of creative inspiration.

The realization of an ultimate state is essentially dependent on direct practice and on conditions suitable to the individual

The third key idea acknowledges that what is often needed to allow impulses toward ideal states of health, expression, and fulfillment to consciously emerge in daily life is not only a belief in their existence and

an intense desire and expectation of their occurrence, but also a disciplined openness that permits their emergence. Belief and desire alone may not be enough to regain contact with ignored, overlooked, or denied impulses. Engaging in a disciplined spiritual practice such as insight meditation for a sufficient amount of time is often required to open what is closed, balance what is unbalanced, and reveal what is hidden (e.g., Kornfield, 1993). As the individual generates enough experiential data to counteract limited ideas of the nature of the psyche and its greater world, it becomes easier for the egotistically-oriented portions of the self to accept the possible existence of other streams of awareness and perception. As this occurs, the individual's ideas of his or her own private reality become changed and understanding of the unknown elements of the self becomes expanded. The limitations and blocks to one's natural, spontaneous impulses toward self-actualization and ideal development may then become removed. Once individuals acknowledge the existence of such impulses and learn to trust them, they will quite naturally be led to explore their meaning and move in the direction of their ideal development.

Every individual has the right to choose his [or her] own path

The fourth key idea recognizes the value-ladened character of existence and the significant importance of individual differences, free will, choice, and responsibility for one's choices. Actions, events, and circumstances that are worthwhile, desirable, and significant for one person may be meaningless to another because of individual differences in temperament, inclination, curiosity, training, education, past experience, and desire for knowledge. Individuals can choose among courses of action precisely because they are uniquely suited to sense what course of action will lead to their own probable development and fulfillment. In the creative field of probable actions and events, there is always more than one way to discover the vital reality of one's impulses toward ideal states and become acquainted with those deeply creative aspects of one's own being.

Is an Exclusively Psychological Approach to the Transpersonal Sufficient or Necessary?
Critique
A second criticism of transpersonal psychology is that since private transpersonal experiences occur in

the physical world of shared events, such experiences can never be adequately understood from a psychological standpoint alone. An exclusively psychological approach to the transpersonal can never be sufficient. Such an approach may even be unnecessary in light of Ken Wilber's (2000, 2006) integral approach to psychology and spirituality and the emergence of the field of transpersonal studies (Boucouvalas, 1999; Daniels, 2005, chap. 12; Walsh and Vaughn, 1993b). If "all quadrants, all levels, all lines, all states, all types. . . need to be included in any truly integral or comprehensive approach" (Wilber, 2006, p. 31) to the transpersonal, and if a multidisciplinary, multi-perspective approach to knowledge requires that transpersonal psychology be supplemented and ultimately integrated with other fields of knowledge (e.g., transpersonal studies), then in what sense can a purely psychological approach to the transpersonal ever be considered sufficient to justify transpersonal psychology's continued existence as a separate and discrete discipline?

Response

It is true that individual interior experience merges into collective public life and grows again outward toward the physical world, contributing and adding to that exterior reality of which it is a part. The continuum of existence holds it (and us) all together. It is also true that "all quadrants, all levels" (Wilber, 2006, p. 26) arise and coalesce together in quite a natural fashion from psychic (in the Jungian sense) elements of human consciousness that are as necessary for them as sun, air, earth, and water are to plants. Society is within each member of the human species; without society's source–the individual human psyche–society would not last a moment. The survival of our society, culture, and civilization is literally dependent upon the spiritual or psychic condition of the individual, which en masse constructs, maintains, and grows the collective cultural stance of our civilization.

Ever since its beginning, transpersonal psychology has explored the spiritual nature and character of a psychodynamically active human psyche. Hypothetical constructs such as "spirit," "soul," or "psyche" are used interchangeably in the transpersonal literature to express the greater portions of our being as a species. These terms remain meaningless notions except as they relate to the individual spirit, psyche, or soul that can be used as a frame of reference. An exclusively psychological

approach to the transpersonal is thus necessary in order to sufficiently emphasize the importance of the individual and his or her power to form private and public events. Then transpersonal studies is ready to show how the magnification of individual reality combines and enlarges to form the fabric of collective realities such as the sudden rise or overthrow of governments, the birth of new religions, and the appearance of innovative technology (or our species' more shadow-like collective creations such as mass murders in the form of wars or mass suicides in the form of deadly epidemics). The individual does not simply encounter these events nor are they merely thrust upon him or her. They are the result of individual thoughts, expectations, and feelings that merge with those of others to give rise to those collective events in the creative field of probable actions in which individuals directly or indirectly participate (Needleman & Baker, 1978; Roberts, 1981a; Tarnas, 1991). All quadrants–self and consciousness, brain and organism, culture and worldview, social system and environment–must be considered in the far greater context of consciousness which is their source if an adequate understanding of the transpersonal is to be obtained (Cobb & Griffin, 1977; de Quincey, 2002; Roberts, 1977, 1979a).

Is Transpersonal Psychology a Scientific Field?
Critique

A third criticism of transpersonal psychology is that it is an unscientific, irrational approach–the product of undisciplined thinking by a group of extravagant, mystically-oriented professionals (Ellis & Yeager, 1989). While theologians refuse to give the soul any psychological characteristics, mainstream psychologists refuse to grant its existence, and anyone who experiences "something that cannot exist" is to be regarded as delusional or mentally ill. Beliefs in the existence of the soul and life after death, mental healing, and out-of-body experiences, precognition and telepathy, and other "anomalous" experiences are viewed as a sign of psychopathology or emotional instability, a relic of magical thinking, the result of a cognitive deficit, or a delusion cast up by the irrational areas of the subconscious–if the existence of the subconscious is acknowledged at all.

Transpersonal theory and psychotherapy may be theoretically fascinating and creatively valid, but are seen as dealing essentially with "non-information" and thus do not contain statements about any kind of scientifically valid, hard-bed reality (Ellis & Yeager,

1989; Kurtz, 1991; Shermer, 2002). The claims of transpersonal psychologists (e.g., our essential nature is spiritual, consciousness creates form and not the other way around, contacting a deeper source of wisdom and guidance within is possible and helpful to personal growth) run directly counter to much contemporary thought and are regarded as scientific error or heresy as far as orthodox Western psychology is concerned (e.g., Tart, 1975, chap. 2). The existence of any phenomena that implies the possibility of mind affecting matter and any psychology or philosophy that brings these into focus is to be vigorously opposed. If not repudiated, such unofficial elements of the mind that appear to contradict intelligence and reason, logical thought and objectivity would threaten the legitimacy of psychology as a scientific discipline and shatter the philosophic foundations of psychology itself (Coon, 1992).

A related criticism pertains to the methodological difficulties concerning transpersonal psychology's scientific status. The field appears to be largely founded on theory, experience, and belief with few objective tests of its theories. As one transpersonal psychologist put it:

> Transpersonal psychology has never developed a coherent scientific frame of reference, and despite numerous attempts to adequately define it (e.g., Lajoie & Shapiro, 1992; Walsh & Vaughn, 1993), still suffers from serious ambiguity regarding its scope and appropriate methodology. As a result, little progress in understanding transpersonal psychological phenomena from a scientific perspective has occurred since the founding of the field. (Friedman, 2002, p. 175)

Another problem is that the strength, vitality, and worth of transpersonal phenomena and our understanding of them have been greatly undermined by distortions, negative ideas, superstition, fanaticism, and some sheer nonsense (Child, 1985; Gardner, 1957, 1991; Sagan, 1996).

Response

Transpersonal psychology is scientific in the Aristotelian sense (scientia) in that it seeks knowledge through causes–material, efficient, formal, and final. It is scientific in the Jamesian sense in that it bases its conclusions upon empirical data obtained by "direct experience" (empiricus) from 1st-2nd-3rd person points of view. It is scientific in the methodological sense in that it uses the disciplined inquiry of scientific methodology in its study of exceptional human experiences and transformative behaviors, including: problem identification, literature review, hypothesis construction, operational definition, research design, methodologies for the observation, control, manipulation, and measurement of variables, quantitative and qualitative data analysis, and public communication and evaluation of results in peer-reviewed journals and at national and international conferences.

The broad definitional themes of transpersonal psychology–"highest or ultimate potential," "phenomena beyond the ego," "human transformation and transcendence," "transcendent states of consciousness," "psychospiritual development," "integrative/holistic psychology"–may all sound quite esoteric, but they refer to highly practical experiences and behaviors. In certain terms we are dealing with the very nature of creativity itself, as correctly understood by Maslow (1968, 1971). Exceptional human experiences and transformative behaviors can be considered to be expansions and extensions of normal creativity and natural kinds of phenomena that, like other natural events, can be studied by conventional methods of scientific inquiry (Csikszentmihalyi, 1996; Gowan, 1974; Murphy & Donovan, 1997; Palmer & Braud, 2002).

In addition, transpersonal researchers use a variety of innovative methods of human inquiry that are "as creative and expansive as the subject matter we wish to investigate" (Braud & Anderson, 1998, p. 4), and can include creative expression, direct knowing, dream and imagery work, integral inquiry, intuitive inquiry, meditation, organic research, storytelling, and transpersonal-phenomenological inquiry (Hart, Nelson, & Puhakka, 2000; Palmer, 1998). Non-experimental evidence remains an extremely valuable source of information concerning the nature and limits of transpersonal experience and transformative behavior (Braude, 1997; Coles, 1990; Miller & C'de Baca, 2001; Murphy, 1992; O'Regan & Hirshberg, 1993). Many transpersonal abilities and capacities can be adequately understood only in their natural setting, which is why William James's (1902/1936) *Varieties of Religious Experiences* is such a rich source of insight and understanding into dramatic forms of religious behavior and attitudes. Methodologically, I advocate a methodological pluralism (Faulconer & Williams, 1985, 1990; Polkinghorne, 1983) "that is not to be equated

with theoretical eclecticism" and in which "our choice of methods [is] based on the nature of the problem we are investigating" (Slife & Williams, 1995, pp. 200, 204).

What Is Transpersonal Psychology's Relationship to Religion, Parapsychology, and Other Related Disciplines?

Grof (1985), a co-founder of transpersonal psychology, states that "what truly defines the transpersonal orientation is a model of the human psyche that recognizes the importance of the spiritual or cosmic dimensions and the potential for consciousness evolution" (p. 197). This means transpersonal psychology recognizes that humanity is by nature spiritual. Personality psychologist Allport (1955/1969) regarded the "religious sentiment" in its function of "relating the individual meaningfully to the whole of Being" (p. 98) as one of our strongest traits as a species, yet the part of our psyche most often overlooked by mainstream psychology.

Some transpersonal scholars consider the strong scientific evidence for psi functioning (e.g., Broughton, 1992; Edge, Morris, Rush, & Palmer, 1986; Krippner, 1977-1997; Murphy, 1992; Radin, 1997; Rao, 2001; Wolman, 1985) as providing general support for the reality of a spiritual world and a basic firm groundwork for showing how the soul's abilities in life might display themselves (Braude, 2003; Myers, 1903; Osis & Haraldsson, 1997; Schwartz & Simon, 2002; Tart, 1997).

> Parapsychological phenomena provide essential grounds for believing in and validating religious experience and in so doing we find in parapsychology the necessary interface between science and religion. (Rao, 1997, p. 70)

Transpersonal psychology and parapsychology, in these terms, share the same objectives.

Lucid dreaming, out-of-body experiences, psi-related experiences (precognition, clairvoyance, psychokinesis), past-life experiences, near-death experiences, spiritual healing experiences, and mystical experience are considered anomalous phenomena by mainstream psychology because of artificial divisions established within psychology itself between what is common and uncommon, possible and impossible, normal and abnormal, real and unreal (Cardena, Lynn, & Krippner, 2000). They are also ancient psychological phenomena that have been a part of humanity's existence for as long as history has been recorded, reported and witnessed for centuries by quite normal people; accounts of such occurrences having been expressed by many cultures and religions from the past and continuing into the present (Hay, 2006; Newport & Strasberg, 2001). They are at least indications that the quality of life, mind, identity, and consciousness are more mysterious than is presently comprehended by mainstream psychology.

Is Transpersonal Psychology Too Metaphysical?
Critique

A fourth criticism of transpersonal psychology is that it has become too metaphysical in its concepts and theorizing. Its psychological theories are regarded as the most speculative of philosophies and foster an irrational belief in divine beings (Ellis & Yeager, 1989). Transpersonal scholars such as Assagioli (1965), Grof (1985), James (1902/1936), Lancaster (2004) and Wilber (1977) who use metaphysical concepts as a framework for understanding the nature and character of transpersonal experiences, allegedly claim to validate the existence of what cannot be empirically verified. William James (1902/1936), for example, believed that

> the unseen region in question is not merely ideal, for it produces effects in the world. When we commune with it, work is actually done upon our finite personality. . . . But that which produces effects within another reality must be termed a reality itself, so I feel as if we have no philosophic excuse for calling the unseen or mystical world unreal. . . . God is real since he produces effects. (pp. 506-507)

Critics assert that quite satisfactory explanations of experiences "beyond ego" can be offered without positing the existence of an ontological reality outside the physical and psychological one (Daniels, 2005; Friedman, 2002; Maslow, 1964). As Carl G. Jung put it:

> The fact that metaphysical ideas exist and are believed in does nothing to prove the actual existence of their content or of the object they refer to…. (Jung, 1968, p. 34)

> Psychology treats all metaphysical claims as mental phenomena, and regards them as statements about the mind and its structure that derive ultimately from certain unconscious dispositions…. (Jung, 1992, pp. 48-49)

Mystics are people who have a particularly vivid experience of the processes of the collective unconscious. A mystical experience is experience of the archetypes. (Jung, 1935, p. 218)

Furthermore, any expectation or presupposition that a transpersonal experience reveals the actual existence of a real transcendental reality biases scientific understanding and limits openness to alternative interpretations of the phenomenal facts (Daniels, 2005, chap. 10). Nelson expressed this well, as follows:

> Ontological assumptions (such as the objective empirical reality of science or the divine of many religions) often force the direction of the research and thus pre-draw conclusions. In effect, neutrality requires that we suspend. . . as far as possible, all assumptions vis-à-vis the ultimate nature of things and events of our world and return to the empiricism of our direct experience. (1990, p. 36)

In other words, if transpersonal psychology is to remain a scientific field and not turn into a branch of philosophy or theology, then we must restrict ourselves solely to a phenomenological study of its "pure" experiential aspects, and adopt an agnostic point of view toward all experiences of the transpersonal, avoiding as far as possible all ontological references, interpretations, speculations, or hypotheses about the nature of transcendental realities (if they exist) beyond the physical or psychological one.

Response

We may divorce ontology from epistemology in thought, but they remain united and undivided in experience and in nature (Watts, 1963). Behind every method of inquiry, every research finding, and every scientific theory are hidden metaphysical assumptions–ontological and epistemological assumptions–about the nature of the physical world and psychological realms and the way in which human beings understand them (Burtt, 1932; Harman & Clark, 1994; Slife & Williams, 1995). These embedded assumptions and implications are seldom verbalized or questioned, but all experiences presuppose them, all understanding is built upon them, and all judgments are grounded in them (Lonergan, 1959). Moreover,

> the desire to be open-minded may lead people to think that they have avoided biases, when all that they have really avoided are the biases that they are

aware of–the nonhidden ideas. . . . Ideas guide our actions, enrich our understandings, and fill gaps in our less-than-complete knowledge of the issues involved. In this sense of open-mindedness, then, a strategy that is supposedly free from bias is not only impossible, it is undesirable. . . . All that is required is that scientists be open to alternative explanations, be honest, and reserve judgment about what is 'actually' going on. (Slife & Williams, 1995, p. 9)

The idea that we are somehow able to experience something as it is prior to interpretation is an epistemological assumption not strongly supported by research of modern cognitive psychology (Matlin, 2005). We naturally and spontaneously interpret phenomenon and any symbolic meaning it may have in light of our beliefs of good and evil, the possible and the impossible, what is normal and abnormal, real and unreal. Otherwise, the experience will have little or no meaning to the physically-oriented self.

> In this sense, data can never be facts until they have been given an interpretation that is dependent on ideas that do not appear in the data themselves" (Slife & Williams, 1995, p. 6).

Beliefs and intents, interests and desires serve as organizational processes that screen out certain information, causing us to perceive from the available field of energy certain data unconsciously selected in useful ways in accordance with our ideas of what reality is. Knowledge informs and influences all perceptual, memory, and cognitive processes. In fact, it is the character of the knowledge provided during transpersonal experiences that is often considered the most self-validating part of the experience (Ferrer, 2002; Hastings, 1991).

What Kinds of Ontological and Epistemological Assumptions Are Appropriate in Transpersonal Psychology?

If we cannot escape from metaphysics in our theories and interpretation of experience, then what kinds of ontological and epistemological assumptions are appropriate to a scientific psychology that calls itself transpersonal? Ontologically, the ever-actual integrity of psychological experiences (mind) and the natural world (matter) cannot be denied. Conceptual distinctions can be made between individual psyche and transcendental realities without presupposing the sort of ontological

divisions set up by Descartes. Without advocating a return to an unmodified Cartesianism with its notion of mind and matter as ontologically distinct "substances," a case can be made for some sort of interactive dualism in which the duality that we perceive between us and the environment, between mind and body, is artificial and a productive function of our brain, physical senses, and focus of consciousness (Bergson, 1908/1991; Butts, 1997a, 1997b; James, 1898/1900; Kelly, Kelly, Crabtree, Gauld, Grosso, & Greyson, 2007; Myers, 1903; Stapp, 2005). As mystic and writer Roberts once put it:

> Do not think of the mind as a purely mental entity and of the body as a purely physical one. Instead, think of both mind and body as continuing, interweaving processes that are mental and physical at once. Your thoughts actually are quite as physical as your body is, and your body is quite as nonphysical as it seems to you your thoughts are. You are actually a vital force, existing as part of your environment, and yet apart from your environment at the same time. (cited in Butts, 1997b, p. 131)

According to modern physical theory (quantum physics), consciousness plays an essential role in the construction and maintenance of physical reality as a Tertium Quid that transduces energy into matter by translating highly sophisticated and complex probability fields of oscillating, ever moving, highly charged gestalts of electromagnetic energy into physical objects in a universe in which matter, energy, and consciousness ultimately merge (Bohm, 1980; Friedman, 1994; 1997; Roberts, 1981a, 1981b; Stapp, 2004). Extending this idea further, we can say that humans are not alone in constructing, projecting, and maintaining their own physical image and the physical properties of the physical universe in this way.

More generally, consciousness can be hypothe-sized to be the force behind matter (panpsychism), forming other realities besides the physical one with different root assumptions, laws, properties, and characteristics, and requiring different modes of perception for us to become aware of their existence. By altering the focus of our consciousness and tuning into other fields of actuality, we enter other levels of reality quite as native to our psyche as normal waking consciousness. Furthermore, we can argue for a permissive or transmissive (as opposed to productive) function of the brain "as the organ which somehow constrains, regulates, restricts, limits,

and enables or permits expression of the mind in its full generality" and the psyche as having "the kind of internal organization and dynamics assigned to it by Myers and James that may under various circumstances be able to function in some manner on its own" (Kelly, et. al., 2007, p. 608).

The phenomenological solidity, stability, and individuality of physical objects and events has been shown to be the camouflage form that reality takes within three-dimensional systems when perceived by our physical senses, but containing within it a much greater reality–the vitality that gives objects and events their form. The senses fabricate physical reality and see solid objects that are not solid at all but, rather, the result of perceptive patterns determined by psychological structures that are a function of our state of consciousness (Tart, 1983). Like a dream that seems real in the dreaming state of consciousness, so the physical universe and its percepts seem real to our waking state of consciousness, being a property of that state. This does not mean that physical reality is false or that this is the only reality there is. It is the only reality that we can perceive with the physical senses.

Moreover, there is no real division between the perceiver and the thing seemingly perceived. The physical world rises up before our eyes, while being a part of the world it perceives–composed of the same "stuff" as all other matter in the universe. Environments are not separate, objective, conglomerations of things in themselves that exist independently of consciousness, but always in relationship to consciousness, with constant interchanges of energy continually occurring between the body and the environment, maintaining balances, filling in patterns, with energy taking certain forms each less physical than the next. The lines between inner and outer do not exist in actuality any more than a line exists between conscious and unconscious. These fields or domains intermingle.

Sensation and perception are actions that produce effects and perform a function. The observer and object perceived (noesis and noema) are a part of the same event, each changing the other. This is well expressed by Butts (1997b): "Subjective continuity never fails in that it is always a part of the world it perceives, so that you and the world create each other, in those terms" (p. 33). Reality is not rigid, but plastic, existing within a vast field of probabilities. A flower not only appears different, but is different to the microbe, ant, bee, bird, and human who perceives it. Each perceives the reality of the flower through a set of high specialized receptors that force each

kind of consciousness to translate an available field of energy into a physical perception that is one of an infinite number of ways of perceiving the various guises through which the flower expresses itself. The consciousness of the flower would perceive its own reality from an entirely different focus.

Do Transpersonal Experiences Reveal Actual Transcendental Realities?

Epistemologically, I advocate the middle way of critical realism, an approach that bridges the non-realist position ("There is nothing out there") and the naive realist position ("The already out there now is real"). There is something out there, but the form that something takes is influenced by the perceptive mechanisms and conceptual schemas one happens to have operative at the time (Hick, 1999; Roberts, 1975, 1976). According to the critical realist principle,

> there are realities external to us, but we are never aware of them as they are in themselves, but always as they appear to us with our particular cognitive machinery and conceptual resources. . . . Religious experiences, then, occur in many different forms, and the critical realist interpretation enables us to see how they may nevertheless be different authentic responses to the Real. (Hick, 1999, pp. 41-42)

As St. Thomas Aquinas once put it: "Cognita sunt in cognoscente secundum modum cognoscentis" or "Things known are in the knower according to the mode of the knower" (quoted in Hick, 1999, p. 43).

A critical realist interpretation of a transpersonal experience (e.g., intuitive and revelatory knowledge far beyond [trans] the boundaries of an individual's personal self that springs into existence to expand the person's conscious knowledge and experience) would propose that quite legitimate and valid psychological experiences of basically independent, alternate realities become clothed in the garb of very limited conventional images and ideas of the personality who must interpret the information he or she receives. The transpersonal event becomes altered to some extent, reflected through the percipient's own nature as it expresses itself through the individual's psyche. The transpersonal action or event (e.g., the apparition at Medjugorie) is a reality in an inner order of events that can only be stated symbolically in the outer three-dimensional physical one. Like a round peg trying to fit a square hole, the resulting translation gives us

events squeezed out of shape to some degree as one kind of reality is superimposed over another. Information from the inner order is interpreted in terms of the outer one, even though the phenomenon's own reality might exist in different terms entirely. Any transpersonal action that is perceived is thus only a portion of the true dimensionality of that event.

Roberts (1977, 1979a) would likely agree with Ferrer's (2002) description of mystical consciousness as "an ocean with many shores" (p. 147). Spiritual knowing, in her view, is a participatory affair between the individual and the universe, viewed through one's own unique vision–valid, experiential, and "not therefore unreal, but one of the appearances that reality takes" (Roberts, 1979a, p. 398). Why should we be concerned or worried, she asks, if our private visions and unique understandings of "the higher part of the universe" do not agree (James, 1902/1936, p. 507)? If we expect photographs of our own exterior physical world to differ according to where we go, why should we expect or require all of the "pictures" of interior transcendent realities to look alike? Any particular individual's experience is simply one of an infinite number of ways of perceiving the various guises through which the transcendental reality expresses itself. On this view, for every perception, other perceptions are possible and an event is never fully disclosed in one perception. Each transpersonal experience reveals a different aspect of transpersonal reality. There are as many spiritual realities as there are individuals who experience them–a metaphysical position that William James called "noetic pluralism" (Taylor, 1996, p. 134) and Jorge Ferrer (2002) called "participatory spirituality."

Does Transpersonal Psychology Ignore the Problem of Evil?

Critique

A fifth criticism of transpersonal psychology is that it tries to "leap across" the dark side of human nature (May, 1986), identifying itself with the more positive aspects of human nature while downplaying its "shadow" side (Zweig & Abrams, 1991). A related criticism is that transpersonal psychology is much too Pollyannaish in its view of transpersonal development, and ignores what is referred to as "the problem of evil." There is also the criticism that transpersonal psychology tends to overly focus on the exotic delights of enlightenment instead of the mundane difficulties of everyday life, the actualized

self instead of the sinful self, peak experiences rather than depths of despair, ecstasy instead of agony--all of which allegedly promote narcissism and spiritual materialism, or sustain the egotistically-oriented self rather than transform it (Daniels, 2005, chap. 4).

Response

From its beginning, transpersonal psychology has addressed the hidden power of the "dark side" of human nature. Jung (1875-1961), whose "work in the transpersonal realm prefigured much of what is current in the field" (Scotton, 1996, p. 39), was one of the first transpersonally-oriented psychiatrists to elucidate the influence of shadow-like elements of the psyche for mainstream psychology. Modern transpersonal psychology recognizes the existence of many factors that have contributed to the very definite troubles current in our human cultural world today, including "metapathologies" (Maslow, 1971), "existential vacuums" (Frankl, 1967), "psychological crises and disturbances" (Assagioli, 1965), "spiritual emergencies" (Grof & Grof, 1989), "primal wounds" (Firman & Gilman, 2002), and "spiritual illusions" (Vaughn, 1995). A variety of transpersonally-oriented psychotherapies have been developed to help people cope with the negative emotions accompanying the existential realities of death, guilt, and suffering and personal difficulties that are a part of life's normal domestic ups and downs (Boorstein, 1996; Cortright, 1997; Rowan, 1993; Scotton, Chinen, & Battista, 1996; Walsh & Shapiro, 1983). No one lives in a state of perpetual bliss for that is not the nature of existence. No problems mean no growth, and no growth means no self-actualization. Human nature is not a finished product, but the sort of consciousness meant to change, evolve, and develop.

Distorted ideas and beliefs that stress a sense of meaninglessness, purposelessness, powerlessness, unworthiness, and danger give rise to those conditions that are less than ideal in our world today. By persuading people to disregard and ignore authoritative beliefs, no matter what their source, about the species' "accidental origin," "killer instincts," "unsavory unconscious," "disease-prone body," and "sinful self," transpersonal psychology frees the intellect of negative, hampering beliefs that strain the individual's sense of biological integrity and shrink the area of psychological safety that is necessary to maintain a humane world. By concentrating upon those inbred, positive attitudes, feelings, and beliefs

that constantly improve our sense of well-being, strength, and fulfillment (e.g., the worth of the individual, the species' basic good intent, the importance of individual action, the responsibility to be oneself, the constructive nature of impulses, the creativity of being, the purpose and meaning of life), transpersonal psychology "balances the equation," so to speak. By opening up avenues of expression that increase one's sense of worth and power, individuals become more likely to take steps in their own lives to express their ideals in whatever way is given them. They are better able to assess their abilities clearly so as to be consciously wise enough to choose from among the myriad of probable futures the most promising actions and events that will add to individual fulfillment and to the development of society.

The problem is that many theories of transpersonal development teach us to search for some remote inner transcendent spiritual self that we can trust and look to for help and support, while distrusting and shoving aside the mundane, physically-embodied ego that we have such intimate contact with on a daily basis (Kornfield, 2000). Setting up unnecessary and arbitrary divisions between portions of the self, we are told to get rid of the egotistically-oriented portions of our personality with all of the impulses and desires that direct our behavior in the world in favor of some idealized, detached, disinterested, desireless, egoless state of being located at the top of some remote and practically unreachable rung in the Great Chain of Being.

Spiritual advancement is hindered by such limited and limiting beliefs about the nature of the outer ego whose clear and exquisite focus creates a given kind of experience that is valid, real, and necessary to the life of the physical body. The ego hampers the self's natural inclinations because it has been trained to do so through social and cultural conditioning. The ego is far more flexible, resilient, curious, creative, and eager to learn than generally supposed and is quite capable of allowing freedom to the inner self's intuitions and impulses toward ideal states so that some knowledge of its own greater dimensions can indeed be communicated to this most-physically oriented portion of the personality. The ego is not something that needs to be overthrown in order to reach the transpersonal self. In fact, to do so can create imbalance and psychopathology in the personality (Bragdon, 1990). The life of the outer ego takes place within, not apart from, the framework of the psyche's greater existence. The transpersonal self speaks through

one's most intimate impulses and desires, one's smallest gestures and greatest ideals. The ego is not inferior to other portions of the self, in other words. It is supported, sustained, and filled with the same universal energy and vitality that composes its source. The ego can hardly be inferior to what composes it or to the reality of which it is a necessary and vital part. Spiritual knowledge, understanding, and wisdom is the natural result of this sense of self-unity.

What Effective Contribution Can an Empirically-based Transpersonal Psychology Make to Mainstream Psychology?

Transpersonal psychology as a psychology of the spiritual aspects of the human psyche makes a unique contribution to the discipline of psychology by serving as a bridge that connects mainstream psychological science and transpersonal psyche or spirit. How is this actually being achieved or might be achieved in the future?

The basic firm groundwork of transpersonal psychology and its primary contributions to mainstream psychology lie in (a) its acknowledgement of impulses toward ultimate or ideal states of health, self-expression, and fulfillment, (b) its broadening of "official" concepts about the self, human potential, and abilities, (c) its recognition of the interdependence of individual minds and the availability of superior inner knowledge in dreams, psi experiences, and states of creative inspiration, and (e) its acknowledgement of the existence of basically independent, alternate realities that can be known through a broad range of focuses of consciousness. By drawing attention to the existence of dimensionally greater areas of the psyche, transpersonal psychology encourages contemporary psychological perspectives to consider all creatures and all creation in a greater context with greater motives, purposes, and meanings than usually assigned to them.

Transpersonal psychology serves as a bridge between two worlds of experience. One is the familiar and ordinary world of experience of which we are consciously aware and that is studied by mainstream psychologists. The other world of experience–hallucinatory experiences, lucid dreaming, out of body experiences, psi-related experiences, past-life experiences, near-death experiences, spiritual healing experiences, mystical experience, channeling and mediumistic experiences, alternate states of consciousness–seems to escape the notice of most mainstream psychologists. It may appear as if

transpersonal psychology leaves far behind the familiar, ordinary, normal, and usual experiences and behaviors of everyday life to pursue the strange, esoteric, weird, and anomalous contents of this other world. Actually the familiar and ordinary is discovered to be even more precious, more real, illuminated both within and without by the rich fabric of an "unknown reality emerging from the most intimate portions of daily life" (Roberts, 1977, 1979a, 1979b).

For instance, transpersonal psychology takes into account the psyche's vast creativity and ability to perceive and use information that comes from interior sources. Transpersonal experiences that occur through a dream, an out-of-body experience, a psi experience, a state of inspiration, or an alternate state of consciousness allows perception, memory and cognition to enrich its activities and alter its usual organization, providing the individual feedback and learning experiences not otherwise available in the physical environment itself. These experiences help the individual sense other subliminal streams of consciousness and realize that a fuller waking experience is possible. By hinting at dimensions of awareness usually unavailable to us, such experiences allow the human personality to enlarge its perceptions enough to take advantage of other portions of its own identity, and thereby encounter waking experience in a fresher fashion. Waking behavior and experience can then be judged against a more developed and higher understanding than currently present in contemporary psychological perspectives.

Contemporary psychological perspectives-psychoanalytic, behavioral, cognitive, biological, evolutionary, sociocultural, and humanistic-existential--have each contributed much to humanity's development. They are now at a stage where they must expand their definitions of reality and consciously consider facts that they have allowed themselves to ignore, overlook, or deny (e.g., the end does not justify the means; the activity of the brain is not the power behind the brain; the interior environment is as real as the exterior one; vast cooperative processes of nature, not competitive ones, gave us physical life and connect each species with every other) (Harman & Clark, 1994; Tart, 1975, chap. 2). It is ironic that the basis of the scientific method, the framework behind all organized systems of science and theories of psychology, and all notions of objectivity emerge from and depend upon a subjective reality that is not considered valid by the very psychological

science that is formed through its auspices. Mainstream psychology is capable of much more and will expand as it becomes more acquainted with transpersonal ideas and discovers that "its net of evidence is equipped only to catch certain kinds of fish, and that it is constructed of webs of [ontological and epistemological] assumptions that can only hold certain varieties of reality, while others escape its net entirely" (Roberts, 1981b, p. 137).

As long as transpersonal psychology serves to show that the age-old notion of a soul that arises from deeper multidimensional spiritual realities has not died out everywhere in psychology or become a mere fossil left over from premodern religion, the field will remain vital and relevant to mainstream psychology. By examining the idea of an autonomous psyche or soul in an unprejudiced way and testing its empirical justification in experience, transpersonal psychology keeps spirituality in connection with the rest of psychological science, and psychology in connection with the psyche or soul. Moreover, its influence will grow because behind (and beyond, trans) the themes that define it, the subject matter it studies, the history it embodies, the perspective it provides, the research it conducts, and the goals it seeks to achieve lies the unending reality of our species' inner source that transpersonal psychology strives to help each individual explore and express.

In the great sweeping cultural, religious, and technological changes that are abroad in our world today, the psyche–its human expression–is constructing and projecting greater images of our own probable fulfillment. In certain terms, transpersonal concepts act as symbols of intuitive insight and transmitters for those impulses toward "higher" stages of development that arise from the deeper dimensions of our species' nature, and that operate as a kind of spiritual blueprint to give conscious direction and stimulation to our development. Seemingly outside the mainstream, transpersonal psychology is meant to lead the discipline of psychology into its greatest areas of fulfillment. The promise and hopeful outcome is that in its attempt to reshape our understanding of the psyche's spiritual determinants, transpersonal psychology helps mainstream psychology become the true logos of the human psyche that Allport envisioned it to be.

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About the Author

Paul F. Cunningham, Ph.D., received his B.A. degree in philosophy from Our Lady of Providence Seminary in 1971, M.S. degree in educational psychology from Purdue University in 1975, and Ph.D. in general/experimental psychology from the University of Tennessee in 1986. A full-time, tenured faculty member since 1986, he currently serves as chair of the Division of Applied, Natural, and Technological Sciences at Rivier College in Nashua, NH. Having served as treasurer of Psychologists for the Ethical Treatment of Animals from 1994-1996, and member of the American Psychological Association since 1986, Professor Cunningham was elected 44th President of the New England Psychological Association in 2003. He has published mainly on the assessment of educational (student) outcomes in higher education, animal use in psychology experiments, and student choice policies in the college classroom. He has taught an undergraduate course on transpersonal psychology at Rivier College since 1989 and is currently writing an introductory textbook about transpersonal psychology for use in the college classroom.

Applying Quantitative Research Methods in Transpersonal Psychology: Introduction to Special Topic Section

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Compared to other fields of psychology, transpersonal psychology has produced relatively little quantitative empirical research (Friedman, 2002). Friedman has argued that this is at least partially due to transpersonal theorists "frequently portraying science as inadequate for and irrelevant to addressing transpersonal concerns" (Friedman, 2005, p. 3), while Friedman with MacDonald (e.g., Friedman & MacDonald, 2002; MacDonald & Friedman, 2002) emphasized the importance of including quantitative approaches in studying transpersonal psychology, especially in the value of using psychometric approaches to build cumulative transpersonal knowledge. Taylor (1992), on the other hand, suggested that transpersonal psychology's emphasis on qualitative approaches counterbalances the prevailing overemphasis on quantitative approaches within other areas of psychology, while Braud and Anderson (1998) suggested that "in-depth [i.e., qualitative and other innovative] approaches tend to better suit the idiographic and personal nature of transpersonal experiences" (1998, p. x).

As the *International Journal of Transpersonal Studies'* name signifies, this journal focuses on transpersonal studies, a much broader term that is inclusive of many transpersonal disciplines in addition to transpersonal psychology. We believe that transpersonal psychology, as part of transpersonal studies, can only move beyond its current isolated and limited position within contemporary psychology by actively using recognized scientific methods, both quantitative and qualitative as well as others. In this regard, we agree that "a redirection back to science would both allow transpersonal psychology to gain acceptance as a legitimate enterprise within the larger community of scientific efforts, including the discipline of psychology, and allow for its responsible application toward human betterment" (Friedman, 2002, p. 185). However, we think that scientific approaches to transpersonal psychology should not be limited to any singular method, including qualitative or quantitative, and we also think this applies to other areas of transpersonal studies. Our position supporting the inclusion of quantitative methods within transpersonal psychology in no way detracts from our view of the equal importance of including qualitative and other innovative approaches, such as mixed-methods, in scientific inquiry in this area, nor should it abnegate the equal importance of using a full-range of research approaches to other areas of transpersonal studies, such as artistic and poetic explorations.

But, to begin to rectify the lack of many quantitative empirical papers in transpersonal psychology, we are very pleased to publish two very strong quantitative research studies, which together comprise this issue's special topics section. Teresa L. DeCicco and Mirella L. Stroink's "A Third Model of Self-Construal: The Metapersonal Self" extends previous work on self-construal theory in a series of well-constructed and well-conducted psychometric studies of what they call "metapersonal self-construal." Metapersonal self-construal is conceptualized as a transpersonal construct differing from both independent and interdependent self-construals, widely held mainstream psychological views that ignore a transpersonal perspective.

Though similar approaches have been pursued by others (e.g., Friedman, 1983; Pappas & Friedman, 2007), their research provides additional evidence that conventional models are incomplete without such transpersonal perspectives. Sharon G. Solloway and William P. Fisher, Jr.'s "Mindfulness in Measurement: Reconsidering the Measurable in Mindfulness Practice" also employs a psychometric approach, based on both qualitative and quantitative data, to measure the effects of mindfulness practice. Their data also provides convincing evidence of the worth of these transpersonal practices, as well as the value and applicability of quantitative approaches within transpersonal psychology.

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Mindfulness in Measurement:
Reconsidering the Measurable in Mindfulness Practice

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Can an organic partnership of qualitative and quantitative data confirm the value of mind-fulness practice as an assignment in undergraduate education? Working from qualitative evidence suggesting the existence of potentially measurable mindfulness effects expressed in ruler measures, a previous study calibrated a mathematically invariant scale of mindfulness practice effects with substantively and statistically significant differences in the measures before and after the assignment. Current efforts replicated these results. The quantitative model is described in measurement terms defined at an introductory level. Detailed figures and appendices are provided, and a program of future research is proposed.

The value of mindfulness practice as contributing to psychological strength has a long history of supporting anecdotal evidence. A rich legacy of such research exists in Buddhist literature as far back as the seventh century BCE. Buddhist practitioners today in both the East and West are actively engaged in broad-ening this legacy via a scientific research agenda. This agenda seeks to document the physiological effects of meditation and mindfulness practice using methods that meet the technical standards expected of precision measurement and experimental design. The activities of the Dalai Lama's Mind and Life Institute (http://www.mindandlife.org), among others, demonstrate the current vigor of this interest.

Mindfulness practice has been described as non-judgmental awareness of both internal and external experience, moment to moment, "…an open, undivided observation of what is occurring both internally and externally rather than a particular cognitive approach to external stimuli" (Brown & Ryan, 2000, p. 823). One of the psychological strengths of mindfulness is the capacity to maintain an emotional balance within any particular life moment, whatever that happens to be. Novice mind-fulness practitioners (Solloway, 1999, 2000, 2001, 2004) were asked to describe their experience of mindfulness practice as a non-judgmental focus of attention in the present moment. These journal entry responses link themselves to a number of important self-care issues: the quality of the inner-life suggested by Seligman and Csik-szentmihalyi (2000), self-determination (Ryback, 2006), emotional balance (Goleman, 1995), stress-reduction, and empathy (Kabat-Zinn, 2005) to name a few. Solloway (the first author) teaches in higher education, and holds both a meditation practice and an orientation to mind-fulness practice when not meditating. Her daily experi-ence of witnessing the debilitating effects of emotional imbalances, stress, and prejudicial orientations to present moment experience in the lives of university students awakened her compassion. Offering assignments in mind-fulness practice became her compassionate intervention. Developing documentation of the effects strengthened the argument for such assignments.

The use of mindful awareness as a method of immersion (Moustakas, 1990) for reading and responding to students' journal entries across several semesters gave Solloway insight into recurring themes associated with powerful individual transformations across the assignment's duration. The students were different each semester but the effects of mindfulness practice emerged through similar themes and ranges each time. The journal entries were anecdotal self-reports of those effects for each student and were in themselves powerful voices

for the value of this compassionate intervention. Growth was palpable…like noticing that the worn patch on your son's jeans no longer matches where his knee was a few months ago. You don't have to measure his height to know he has grown, but the availability of an instrument to provide that measure certainly brings valuable information to bear when selecting a pair of jeans with a better fit. The journal entries, like the jeans, showed evidence of individual growth, but the question arose as to whether it was possible to calibrate a ruler to provide more specific information about each individual's growth.

The most well-known mindfulness instruments are the Mindfulness Attention Awareness Scale (Brown & Ryan, 2003), the Kentucky Inventory of Mindfulness Skills (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006; Baer, Smith, & Allen, 2004), and the Toronto Mindfulness Scale (Lau, Bishop, Segal, Buis, Anderson, Carlson, Shapiro, & Carmody, 2006). Solloway's (1999, 2000, 2001, 2004) roots as a qualitative researcher influenced her desire to develop a scale directly out of her students' journal entries rather than select a scale developed from other sources. Could the cumulative voices of her students be translated into a scale that would corroborate their journal entries retaining the individuality of experience just as the journal entries did? Fisher's (2000, 2003a, 2003b, 2004) experience with developing instruments from qualitative data takes advantage of Rasch models to give ruler measures of the qualitative construct without compromising the integrity of the individual measured, thus opening the door to collaboration toward an answer.

The Present Research

The first study (Solloway & Fisher, 2007) grew out of Solloway's seven-semester experience of coaching novice mindfulness practitioners (students in a preservice undergraduate teacher education course) through an eight-week introduction to mindfulness practice. These students used the breath as an anchor for attention in the present moment all day one day a week for eight weeks. At the end of each day of practice, the student submitted an email journal entry describing the experience of mindfulness practice that day. Solloway, a vipassana practitioner since 1996, mindfully read each journal entry. Out of this deep listening, she responded to each journal entry within 24-hours of receiving it, providing encouragement that seemed appropriate to the individual entry. Across the seven semesters, obvious

patterns emerged regarding students' depths of engagement in the project (see Appendix A). The journal entries suggested a range of depth of engagement in the practice; consistent reports of specific categories of experience began to suggest patterns of "Beginning," "Intermediate," and "Advanced" engagement. These labels only refer to an accumulation of patterns among the self-reported experiences of these novice practitioners. But the accumulation of journal entries seemed to indicate that the participants in this project semester to semester "grew," some more than others.

Could an instrument be constructed that reflected the common themes in the journals and also created a ruler measuring growth across the themes? In other words, could these patterns be corroborated by a quantitative measure requiring experimental tests of the hypothesis that the variable of interest is in fact quantitative, that is, that the variable is divisible into the additive magnitudes necessary for meaningful numeric representations? This would require a model that pitted the difficulty of each item against the ability of the participant without any other influences. This is the same problem Rasch (1960) saw when he contemplated the problem of statistical methods most often used in psychometric methods that are group-centered rather than ones

> in which each individual is characterized separately and from which, given adequate data, the individual parameters can be estimated. It is further essential that comparisons between individuals become independent of which particular instruments – tests or items or other stimuli – within the class considered have been used. Symmetrically, it ought to be possible to compare stimuli belonging to the same class – "measuring the same thing" – independent of which particular individuals within a class considered were instrumental for the comparison. This is a huge challenge, but once the problem has been formulated it does seem possible to meet it. (Rasch, 1960, p. xx)

Rasch models enable one to imagine a methodology that embraces both the contemplative and compassionate found in qualitative work describing the experiential without sacrificing the rigor of measurement required in experimental science. Yet Rasch models have their opponents as well. The following section will describe what happened when Solloway's mindfulness practice entered the Present Moment of Fisher's tutelage on the subject.

Rasch measurement practitioners are sometimes accused of an over-zealous advocacy of their methods, as a kind of method idolatry. Sometimes, however, such accusations have less to say about the accused than they do about quick judgments foreclosing prematurely on the opportunity to see something new. Instead of dismissing what seems on the face of it to be an unreasonable position—strong advocacy of either (1) one method among many equivalent methods, or (2) mathematical invariance requirements that can seem unrealistically rigid to those unfamiliar with them—perhaps a more sympathetic attitude, or one more sensitive to the ambiguities of interpretation, as outlined by Kuhn (1977, pp. xi-xii), would lead to insights as to why and how reasonable people might take an apparently unreasonable position.

For instance, there are those who contend that Rasch models are fine to apply when they happen to fit data, but they often do not, and so other, more flexible models are then required (van der Linden & Hambleton, 1997). But generality in the measurement of a construct requires the identification of patterns of invariance that hold up across data sets (Rogosa, 1987; Michell, 1990, 2000). As Embretson (1996, p. 211) puts it,

> It is sometimes maintained that the Rasch model is too restrictive and does not fit real test data sufficiently well. However, even if a more complex IRT model is required to fit the data, the total score scale would not provide a relatively better metric. In fact, if item discrimination parameters are required to obtain fit, total score is not even monotonically related to the IRT theta parameters. The IRT trait score, even for equal total scores, would depend on which items were answered correctly.

These kinds of confoundings can occur because multi-parameter IRT models are internally inconsistent, asserting unidimensionality even while allowing item characteristic curves to cross (Lumsden, 1978; Andrich, 1988; Wright, 1984).

Rasch (1960, pp. 37-8) was certainly aware of the problems of interactions, and wrote, "models are not meant to be true," since no data ever fit a model exactly. Models are meant to be useful and meaningful, however, and abstract heuristic ideals, such as Plato's redefinition of the elements of geometry, Galileo's frictionless plane, or Carnot's perfectly reversible heat engine, have

repeatedly proven themselves essential to science over the course of its history. The identification of anomalies is fundamental to allowing exceptions to prove (in the sense of testing) rules. It is said that nature reveals herself by her exceptions, but when mathematical models incorporate interaction terms and do not require invariantly separable parameters, as do many IRT and statistical models, these exceptions are hidden within summary statistics, where they are either ignored or very difficult to find. Rasch models, in contrast, have been associated from their inception with a variety of graphical and statistical methods for identifying and evaluating anomalies (Smith, 2000). For more information on this controversy, see Wright (1977a, 1984), Fisher (1994), or Andrich (1988, 2002, 2004).

Taking another tack on this issue, there are others who contend that methods such as Confirmatory Factor Analysis (CFA) can be as informative as a Rasch model in the identification of unidimensional constructs. Though this is true in limited applications (Reise, Widaman, Pugh, 1993), (1) CFA lacks a stochastic frame of reference, meaning that there are no error terms for the factor loadings; (2) secondary factors can be completely dependent on the particular error distribution that just happens to be present in one data set, but not in others; (3) CFA does not provide the desired additive unit of measurement, since the raw scores are usually assumed to provide it (and though a logistic regression of the scores on the loadings might come close), and (4) CFA does not provide any means of identifying or evaluating anomalous individual responses. These four shortcomings of CFA as a measurement model mean that multimodal data will produce multifactorial results, even if the data analyzed are a subset of a larger data matrix previously shown by CFA to be a single unidimensional factor (Smith, 1996; Wright, 1988, 1991).

Finally, raw scores from tests and surveys are typically interpreted as though they are meaningful representations of quantitative amounts, when they demonstrably are not. Scores summed from two sets of items drawn from different agreeability or difficulty ranges of the same survey, test, or assessment do not and cannot plot in a straight line. Centimeter and inch measures of the same object lengths do plot in a straight line, as the relation between the two number systems is dominated by the invariance of the objects' amounts of length.

If nonarbitrary, invariant measures of constant amounts could be obtained from tests and surveys,

would not these be worth obtaining? Might it be that those who dismiss Rasch's models for measurement as just one approach among many equivalent approaches are missing something important, perhaps even something essential?

The fact is that data scaled via fit to a Rasch model can plot linearly, in close approximations to the way quantitative amounts dominate the relation between centimeters and inches, or grams and ounces. Furthermore, this kind of a plot is defined as the hallmark of quantitative meaningfulness by philosophers and theoreticians who are unconcerned with and not informed about Rasch's models. Finally, it has been shown that, insofar as a score from a test or survey provides a useful basis for measurement, the model that it must fit is a Rasch model.

Thus we have measurement theoreticians and philosophers (Falmagne & Narens, 1983; Narens, 2002; Roberts, 1985, 1999) investigating the meaningfulness of quantitative statements, and arriving at the essential importance of invariance as a fundamental criterion for telling sense from nonsense. Mundy (1986), for instance, summarizes this work in terms applicable to the difference between curved raw score plots and linear length plots, saying,

> The hallmark of a meaningless proposition is that its truth-value depends on what scale or coordinate system is employed, whereas meaningful propositions have truth-value independent of the choice of representation, within certain limits. The formal analysis of this distinction leads, in all three areas [measurement theory, geometry, and relativity], to a rather involved technical apparatus focusing upon invariance under changes of scale or changes of coordinate system. (p. 392)

Hall, Wijsman, and Ghosh (1965) show "that the set of invariant rules based on a sufficient statistic is an essentially complete subclass of the class of invariant rules" (Arnold, 1985, p. 275). Rasch models are valued for the fact that counts of correct responses or sums of ratings are minimally sufficient statistics (Andersen, 1977; van der Linden, 1992). Rasch learned of sufficient statistics from their inventor, Ronald Fisher (1922), and considered this work the high mark of Fisher's accomplishments (Andrich, 1997; Wright, 1980). In a Rasch model, ordinal scores are minimally sufficient, and thus necessary, since they are functions of all the other statis-

tics that are sufficient in the sense of summarizing data with no loss of information.

What this means is that, "if there exists a minimal sufficient statistic for the individual parameter Theta which is independent of the item parameters, then the raw score is the minimal sufficient statistic and the model is the Rasch model" (Andersen 1977, p. 72). As Wright (1977b) pointed out, it then follows that

> Unweighted scores are appropriate for person measurement if and only if what happens when a person responds to an item can be usefully approximated by a Rasch model.... Ironically, for anyone who claims skepticism about 'the assumptions' of the Rasch model, those who use unweighted scores are, however unwittingly, counting on the Rasch model to see them through. Whether this is useful in practice is a question not for more theorizing, but for empirical study. (p. 114)

In other words, if a count of correct answers or a sum of ratings can provide a meaningful basis for invariant, additive quantification, then a Rasch model holds.

Even when data are not evaluated for fit to a Rasch model, even when the invariance and additivity properties of quantitative measurement are ignored, use of test, survey, or assessment scores as though they are measures inherently implies acceptance of Rasch's separability theorem. This is because the parameter separation theorem is nothing more or less than a formal representation of the rigorous independence of figure and meaning, or of name and concept, that must be assumed in any honest effort at communication (Fisher, 2003a, 2003b, 2004), even in the discourses of deconstruction (Ricoeur, 1977, p. 293; Derrida, 1982, p. 229; Derrida, 1989, p. 218; Gasché, 1987, p. 5). Rasch's mathematics make tests of the qualitative hypothesis of quantitative meaningfulness (Michell, 1990; Narens, 2002) more accessible and practical than most work in this area. And in so doing, Rasch taps deeply into the history of measurement and deploys rich possibilities for mathematical thinking that remain largely unexplored (Wright, 1988, 1997a).

Solloway's Study

This study operationalizes mindfulness as a construct, evaluates stability over time and across groups receiving and not receiving mindfulness training, and establishes a metric for measuring change in amounts of mindfulness. The experience of novice mindfulness

practitioners is taken as a basis for the nurturing of an organically integrated conceptualization of the measured construct.

Method

Instrument

Fundamental measurement-based guidelines for developing high quality survey items (Fisher, 2006) were followed in the development of the instrument. A bank of thirty assessment items were constructed from the students' journal entries (a database of over 350 sets of journal entries). Three more items were added to the instrument after the completion of the original study, in the Fall, 2006, administration. The items were grouped in three categories of hypothesized mindfulness practice development: Beginning, Intermediate, and Advanced (Appendix B). Items were randomized for the final draft of the instrument (Appendix C).

Eight response options (Absolutely Disagree, Very Strongly Disagree, Strongly Disagree, Disagree, Agree, Strongly Agree, Very Strongly Agree, Absolutely Agree) were provided.

Measurement Theory

Criteria for obtaining objectivity in measurement comparisons include conjoint additivity (Luce & Tukey, 1964), statistical sufficiency (Arnold, 1985; Hall, Wijsman, & Ghosh, 1965), invariance (Krantz, Luce, Suppes, & Tversky, 1971), conditional independence (Kolmogorov, 1950), and infinite divisibility (Levy, 1937). All of these are embodied in the criterion of parameter separation (Rasch, 1960), as has been shown over the course of number of analyses and proofs (Andersen, 1977; Andrich, 1988; Fischer, 1995; Perline, Wright, & Wainer, 1979; Wright, 1985, 1997b, 1999). These criteria for objectivity in measurement have been found useful in the study of a wide variety of applications in education, health care, and psychology (Bezruczko, 2005; Bond & Fox, 2007; Fisher & Wright, 1994; Wilson, 2005).

In general, psychologists do not test or even state the hypothesis that the variable of interest in a study is quantitative (Cliff, 1992; Guttman, 1985; Michell, 1990, 1997a, 1997b, 1999, 2000; Wilson, 1971; Wright, 1984). In so doing, their research results remain tied to arbitrary, local, idiosyncratic, sample- and scale-dependent, ordinal comparisons, and are cut off from the benefits that would accrue from nonarbitrary, general, universal, uniform, and invariant linear comparisons. These benefits

include the possibility of unifying research communities via a consensus focus on experimentally demonstrated common objects of investigation that are furthermore measured in the common mathematical language of instruments all traceable to reference standard metrics (Fisher, 2004).

This research tests for the separability of a parameter associated with student mindfulness measures from two parameters associated with mindfulness item and rating scale calibrations. In other words, the substantive hypothesis tested in this research can be expressed as

$$\ln(P_{nij}/P_{nij}-1) = S_n - M_i - R_j$$

that is, that the natural logarithm of the response odds (the probability P for any student n on any item i in response category j relative to category $j-1$) of any student n's response to any item i on the self-assessment is due only to the difference between that student n's measure S of the effects of mindfulness practice and the calibration M of the mindfulness practice effects item i and the agreeability calibration R of the response category j (Andrich, 1978; Wright & Masters, 1982; Wright & Mok, 2000).

In short, the model tests the hypothesis that mindfulness is the primary construct dominating the question and answer exchange. Analysis of the model residuals then aids in identifying individual responses, students, and items as influenced by something different other than the primary construct.

Research Participants

Study participants were 338 unique preservice education students enrolled in several different teacher education courses over a four-semester period extending from the Fall of 2005 through the Spring of 2007 (see Table 1). Though the vast majority of students provided both pre- and post-instruction measures every semester, not all did, resulting in a total of 647 measures for the two time points across semesters.

In the first semester of the study, in the Fall of 2005, and only in this semester, two different instructors taught three of these courses. The class lists were cross checked for participants who had previously taken the first instructor's course or who were simultaneously enrolled in both the first and second instructors' courses; these students were removed from the second instructor's list. Therefore, none of the participants had previous

Table 1
Demographics
338 Total Student Participants
(Due to missing data, not all category groups sum to 338)

	Fall 2005	Spring 2006	Fall 2006	Spring 2007	Total	Valid Percent
Sex						
Male	16	5	14	16	51	15.2%
Female	155	35	41	54	285	84.8%
Age						
17-21	106	27	38	53	224	68.7%
22-31	44	11	16	11	82	25.2%
32-41	6	1	0	2	9	2.8%
42-51	5	1	0	4	10	3.1%
Other	1	0	0	0	1	.3%
Ethnic Group						
Caucasian American	151	39	53	68	311	98.4%
African American	0	1	0	2	3	.9%
Asian American	1	0	0	0	1	.3%
Hispanic American	1	0	0	0	1	.3%
Curriculum						
Mindfulness	87	40	55	70	252	74.6%
Non-Mindfulness	86				86	25.4%

Pre- or Post-Instruction * Semester and Year Cross Tabulation

	Fall 2005	Spring 2006	Fall 2006	Spring 2007	Total
Pre-Instruction Count	171	37	56	71	335
Post-Instruction Count	153	38	53	68	312
Total	324	75	109	139	647

instruction in mindfulness practice or assignments in mindfulness practice within their teacher education programs prior to the study.

Students in the mindfulness instructor's course were assured every semester that credit for the assignment would be awarded simply by participation. In other words, any level of participation would receive full credit. The students in the second instructor's courses acted as a control group.

Procedure

The mindfulness project opted for mindfulness practice one day a week following Thich Nhat Hahn's (1967) projected potential benefits of one day a week

practice. About half of the students (88) participated in mindfulness training as described in Appendix D, and about half (83) served as a control. The experimental group received positive feedback for each journal entry submitted during the eight weeks. Both groups responded to the survey items twice, using an eight-point rating scale, once before the experimental group underwent eight weeks of mindfulness practice (T1=Pre), and again at the end of those eight weeks (T2=Post).

Analyses

All scaling and fit analyses were performed using the Winsteps software (Linacre, 2006), implementing a probabilistic conjoint model of fundamental measurement for rating scales (Andrich, 1978, 1988; Wright & Mok, 2000), and testing for the invariant internal consistency of the data using information-weighted and outlier-sensitive mean square model fit statistics (Smith, R. M., 2000; Wright & Masters, 1982), and principal components factor analysis of the model residuals (Smith, R. M., 1996; Linacre, 1998; Smith, E., 2002). Measures are reported in "logits."

> "Logit" is a contraction of "Log-Odds Unit". It is no more obscure a measurement unit of an underlying and invisible variable than an "Ampère" is of invisible electric current. The essential ingredient of Amps and logits is that they be additive.
> Real apples are not additive. One Apple + One Apple = Two Apples. But Two Apples are twice as much as One Apple only when the Two Apples are perfectly identical. Real apples are not perfectly identical. When we say One Amp + One Amp = Two Amps, we say "all Amps are identical," wherever they appear on the Ammeter. Logits form an equal interval linear scale, just like Amps. When any pair of logit measurements have been made with respect to the same origin on the same scale, the difference between them is obtained merely by subtraction and is also in Logits. (Wright, 1997c, p. 288)

Measures and calibrations from Winsteps were then studied statistically and graphically using SPSS v. 14 (2005).

Results

The data from the later three semesters reproduced the same rating scale structure as the initial first semester's study. The optimization of the rating scale based on the first semester's results was thus retained.
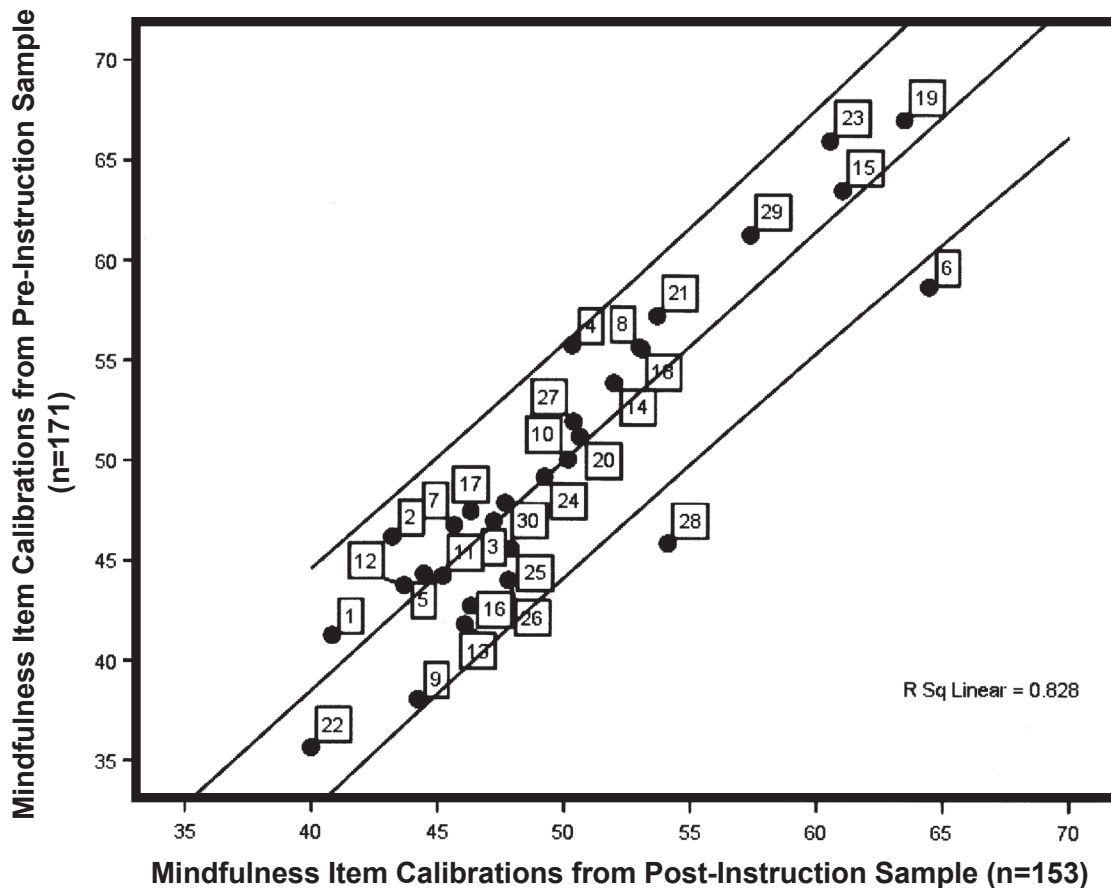
Figure 1. Scatter Plot of Fall 2005 Pre-Instruction and Post-Instruction Item Calibrations

Scaling

The 8-point rating scale was optimized (Andrich, 1996; Linacre, 1999, 2002) to three categories, with all of the disagree categories (25% of the responses) combined together, the Agree category (37% of the responses) left intact, and three most extreme Agree categories (37%) also combined. The transition from category 1 (All disagree categories) to category 2 (Agree) calibrated to 6.9 rescaled units (0.69 logits) below matching measures and calibrations, while the threshold between categories 2 and 3 (all other agree categories) calibrated to 6.9 units above matching measures and calibrations.

Overall respondent measurement separation reliability ranged from 0.90 to 0.93, depending on how error is estimated, and item calibration separation reliability was 0.99. Logits were transformed to a roughly 0-100 scale from their default values by multiplying by 10 and adding 50. The same scale was produced when the items were separately calibrated on the T1 and T2 groups (R = 0.91), as shown in Figure 1. The model fit statistics do not falsify the hypothesis that the thirty items measure a single construct of mindfulness practice. Construct validity was supported by the meaningfulness of the item order on the variable.

Due to an error in survey production, item 29 was rephrased in late 2006, resulting in exceptionally high calibrations and mean square outlier-sensitive fit statistics in the Fall 2006 and Spring 2007 semesters. It is the only item to fall repeatedly outside the 95% confidence intervals in scatter plots of item calibrations by semester and year. The rephrasing resulted in the item's calibration changing by about two logits. Since the item was already near the top of the scale, the new text changed its position on the scale to a level far above all other items. This large effect size resulted in all unexpected responses becoming statistically significant.

The Fall 2006 and Spring 2007 data for item 29 were therefore removed from the calibration database. New data will be added in the future, and the item will be restored to its original phrasing.

The items were calibrated on multiple separate subsamples of the data, determined by curriculum type, pre- or post-intervention time points, the semester and year, or simply the first half of the respondent data entered

vs. the second half. Correlations of the resulting 41 pairs of separate-sample calibrations range from 0.85 to 0.99.

In contrast with item 29's two-semester explainable aberration, items 28 and 6 were repeatedly identified by the model fit statistics, the graphical scatter plots of separate-sample item calibrations (see Figure 1), and the principal components analysis of the residuals as provoking responses inconsistent with the overall common construct. These two items changed positions on the scale to a statistically significant degree, depending primarily on whether the response was made at T1 (Time 1 or Pre Test) or T2 (Time 2 or Post Test). Omitting the items from the scale makes virtually no difference in the resulting measures, suggesting that there is no substantive significance to the items' statistically significant changes in position.

Experimental

In the initial Fall 2005 study of the mindfulness measures (Solloway & Fisher, 2007), the control group (receiving no mindfulness instruction) had nearly identical average measures at the beginning and end of the semester (about 50, with an error of 4). The treatment group (receiving mindfulness instruction) had an average T1 measure of 51, with an error of 4, but finished the semester with an average T2 measure of 68, 17 units, or
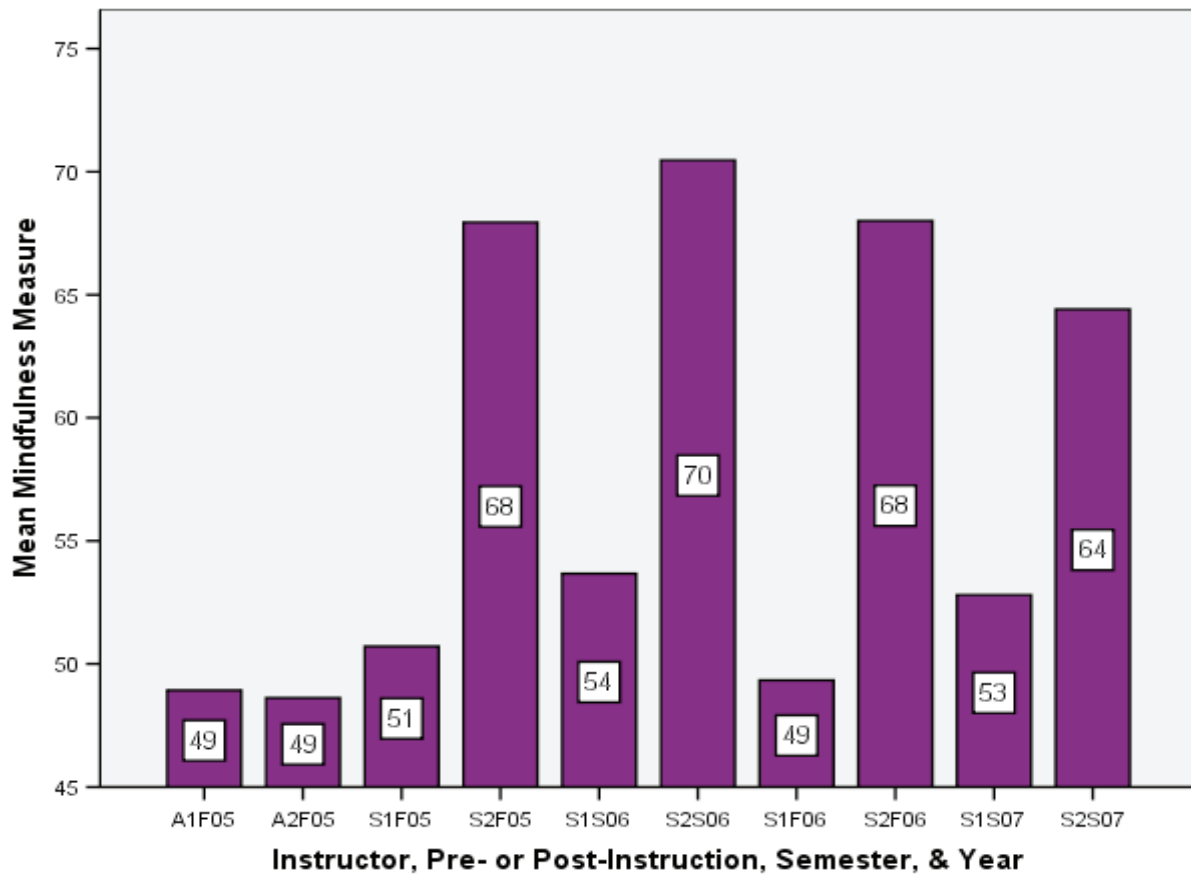
Key:
A1F05: Non-mindfulness Curriculum, Pre-Instruction, Fall, 2005
A2F05: Non-mindfulness Curriculum, Post-Instruction, Fall, 2005
S1F05: Mindfulness Curriculum, Pre-Instruction, Fall, 2005
S2F05: Mindfulness Curriculum, Post-Instruction, Fall, 2005
S1S06: Mindfulness Curriculum, Pre-Instruction, Spring, 2006

S2S06: Mindfulness Curriculum, Post-Instruction, Spring, 2006
S1F06: Mindfulness Curriculum, Pre-Instruction, Fall, 2006
S2F06: Mindfulness Curriculum, Post-Instruction, Fall, 2006
S1S07: Mindfulness Curriculum, Pre-Instruction, Spring, 2007
S2S07: Mindfulness Curriculum, Post-Instruction, Spring, 2007

Figure 2. Pre- and Post-Mindfulness Instruction Measures

more than four errors of measurement, higher on the scale. As previously reported, the T2 measures were different from the T1 measures to a statistically significant degree for the treatment group, but not for the control group.

Replicating the previously reported Fall 2005 results, the pre- and post-mindfulness instruction measures differ by 16, 19, and 11 units, respectively, for the Spring 2006, Fall 2006, and Spring 2007 semesters (see Figure 2). The average T2 measures across the four semesters were consistent over the first three semesters, at 68, 68, and 70.

The average gain from T1 to T2 dropped markedly in the Spring of 2007, though students started with about the same average measure as in the previous semesters. Spring 2007 was unusual in that, due to the sudden departure of a colleague, Solloway was asked to teach his four sections of Language Arts in addition to her usual responsibilities. It was a difficult time and the strain is reflected, we believe, in the drop in mindfulness measures that semester.

Even with this exception, however, every semester's differences in the mindfulness effects measures are highly significant, in both substantive and statistical terms. The overall average pre-instruction measure for students enrolled in the mindfulness curriculum is 51, and the overall average post-instruction measure for those students is 67. ANOVA shows this difference of 16 units (4 errors of measurement) to be statistically significant $(F(1,495)=184.06, p < .001)$. The Pre- and Post-Instruction differences shown in Figure 2 are similarly all statistically significant, ranging from the low of the Spring 2007 11-unit difference $(F(1,137)=24.63, p < .001)$ to the high of the Fall 2006 19-unit difference $(F(1,107)=75.26, p < .001)$.

The statistical power of the design for all the mindfulness curriculum comparisons was 1.00, since all of the statistically significant differences are most of, all of, or more than the pooled standard deviations in size, with one degree of freedom and $p < .01$.
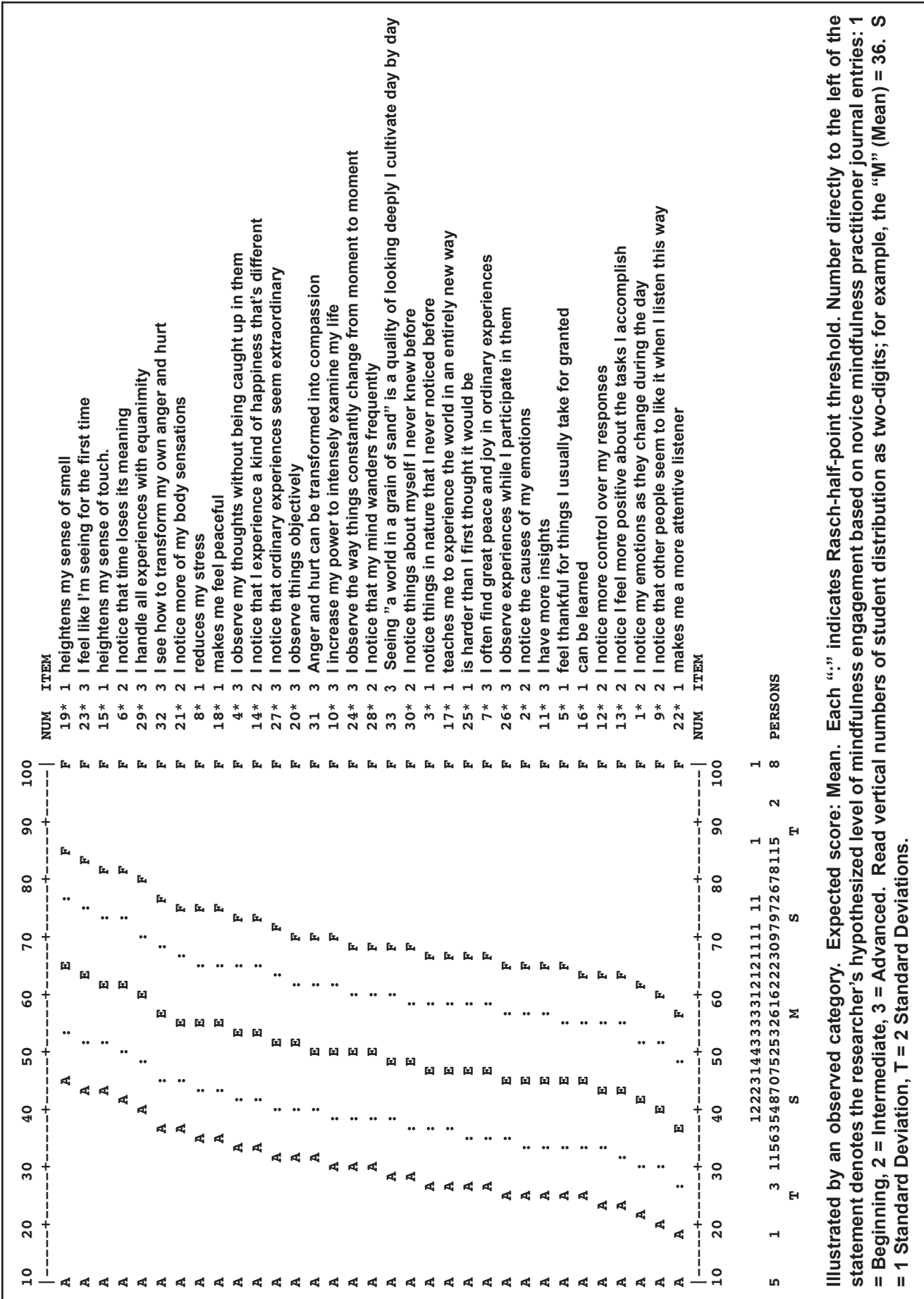
Substantive Interpretation

Figures 3 and 4 show the order of the items on the variable relative to the optimized rating categories and measures. The item hierarchy exhibits a meaningful progression ranging from simple noticing to more intensely understanding and experiencing, and then to heightened awareness and sensation.

The distribution of measures relative to the item hierarchy and optimized rating categories is shown horizontally across the bottom of Figure 3, with the mean, and first and second standard deviations, indicated by M, S, and T, respectively. The counts of students at each measure are read vertically; i.e., there are 36 students with measures at the mean. The same information is conveyed in Figure 4, but with both the measures and the response category-level item calibrations plotted vertically.

The average T1 measure for the students in the mindfulness curriculum over the four semesters is 51. Drawing a vertical line through Figure 3 at 50 on the horizontal scale shows what the expected responses to the items are for a student with that measure. Students with these initial, uninformed experiences of mindfulness practice's effects strongly acknowledge that mindfulness makes for more attentive listening, and more mildly acknowledge a wide range of other effects, from positive effects on others to more self control to a new kind of happiness, with a decreasing likelihood of agreement as one reads up the scale. Three items involving sensations (smell, touch, and sight) are more likely to elicit disagreeable responses than agreeable ones, for T1 measures, on average. Using the Pre/Post measures for Students A, B, and C given at the end of Appendix A, the expected responses for individuals may be seen in the same way in Figure 3.

The average T2 measure for the students in the mindfulness curriculum over the four semesters is 67. Again imagining a vertical line drawn through Figure 3, this time at 67 on the scale, we now expect strong agreement with all but the top six of the mindfulness practice effects, and mild agreement is expected for these.

The substantive meaning of the experimental intervention of training in mindfulness practice is expressed in terms of the difference between these expected response patterns. The difference between the overall T1 measures and the experimental group's T2 measures is about 16. At T1, with an average measure of 50, the item with the highest calibration with which all students typically strongly agree is item 22, mindfulness makes me a more attentive listener, which calibrates at 38. At T2, with an average measure of 67, the item with the highest calibration with which the experimental group typically strongly agrees with is item 8, reduces my stress, which calibrates at 55.

Figure 3. Mindfulness Practice Wright Construct Map

NUM		ITEM
19*	F 1	heightens my sense of smell
23*	F 3	I feel like I'm seeing for the first time
15*	F 1	heightens my sense of touch.
6*	F 2	I notice that time loses its meaning
29*	F 3	I handle all experiences with equanimity
32	F 3	I see how to transform my own anger and hurt
21*	F 2	I notice more of my body sensations
8*	F 1	reduces my stress
18*	F 1	makes me feel peaceful
4*	F 3	I observe my thoughts without being caught up in them
14*	F 2	I notice that I experience a kind of happiness that's different
27*	F 3	I notice that ordinary experiences seem extraordinary
20*	F 3	I observe things objectively
31	F 3	Anger and hurt can be transformed into compassion
10*	F 3	I increase my power to intensely examine my life
24*	F 3	I observe the way things constantly change from moment to moment
28*	F 2	I notice that my mind wanders frequently
33	F 3	Seeing "a world in a grain of sand" is a quality of looking deeply I cultivate day by day
30*	F 2	I notice things about myself I never knew before
3*	F 1	I notice things in nature that I never noticed before
17*	F 1	teaches me to experience the world in an entirely new way
25*	F 1	is harder than I first thought it would be
7*	F 3	I often find great peace and joy in ordinary experiences
26*	F 3	I observe experiences while I participate in them
2*	F 2	I notice the causes of my emotions
11*	F 3	I have more insights
5*	F 1	feel thankful for things I usually take for granted
16*	F 1	can be learned
12*	F 2	I notice more control over my responses
13*	F 2	I notice I feel more positive about the tasks I accomplish
1*	F 2	I notice my emotions as they change during the day
9*	F 2	I notice that other people seem to like it when I listen this way
22*	F 1	makes me a more attentive listener
NUM		ITEM

PERSONS

Illustrated by an observed category. Expected score: Mean. Each "." indicates Rasch-half-point threshold. Number directly to the left of the statement denotes the researcher's hypothesized level of mindfulness engagement based on novice mindfulness practitioner journal entries: 1 = Beginning, 2 = Intermediate, 3 = Advanced. Read vertical numbers of student distribution as two-digits; for example, the "M" (Mean) = 36. S = 1 Standard Deviation, T = 2 Standard Deviations.

```
          MAP OF PERSONS AND ITEMS
MEASURE                   | BOTTOM P=50% |  MEASURE      |  TOP P=50%     MEASURE
 <more> ------PERSONS-+-ITEMS    -+-ITEMS      -+-ITEMS        --- <rare>
 100          .#### +          +              +                   100


                  .
  90                 +          +              +                    90
               .###
                 .
                 .
                 ##
  80           .# +            +              +                    80
               .#
               ###
              .####
                .##                                    X
              .####                                    X
  70          .#### +          +              + XX                 70
                .##                              X
               .###
             .#####            X                X
              ###              X                XXX
             .#####            XX               XX
  60          #### +           + X            + XX                 60
           .#######                             XXXX
          ########   X           X              XX
          #######    X           XXX            XXXX
         .#######    XX          XX             XXXXX
         .#######    X           XX             XX
  50   .########## +            + XXXX         + X                  50
      .###########  X            XX              X
          .####     XXX          XXXX            X
        .#######    XX           XXXXX
         .######    XX           XX
         #######    XXXX         X
  40      ##### +   XX          + X            +                    40
          .###      XXXX         X
           .        XXXXX
          .#        XX
          .#        X
           .        X
  30       . +      X           +              +                    30

           .

  20         +                  +              +                    20
           .


  10         .# +               +              +                    10
 <less> ------PERSONS-+-ITEMS    -+-ITEMS      -+-ITEMS        <frequ>
 EACH '#' IN THE PERSON COLUMN IS   4 PERSONS: EACH '.' IS 1 TO    3
```

Figure 4. Mindfulness Practice Wright Map

Notice that item 8, at 55, is 17 units higher up the scale than item 22, at 38. After taking the 4-unit error of measurement into account, we see that the same unit difference distinguishing the T1 from the T2 measures also distinguishes the differences between the two groups' response likelihoods, respective to any pair of items on the scale. These relationships constitute the substantive meaning of the quantitative comparisons facilitated by the scale. Any unit difference between any two points on the scale will translate into substantively meaningful contrasts illustrated by the content of the items and optimized rating scale. The constancy of this relationship is itself substantiated by the fit to the measurement model, and the high correlations and linear plots of the items' scale values across sub sample calibrations.

Theory-Data Convergence

The numbers 1, 2, and 3 in the first column of the item names in Figure 3 indicate the pre-experimental theoretically predicted calibration ranges. These predicted calibration ranges correlate 0.03 to 0.10 with the multiple independent subsample recalibrations of the 30 items. The respondents' ordering of the items thus differs from the researcher's original conceptualization of that hierarchy, offering an opportunity for rethinking theory and possibly establishing closer theory-data congruence.

The theoretical order was derived from several years' experience reading students' mindfulness journals. It seemed evident that the empirical frequency with which students mentioned or described various effects of mindfulness practice in their journals followed the pattern described by the three assigned categories, with 1 emerging earliest, and 3, latest.

But does the empirical order of emergence necessarily imply a hierarchy of effects? Perhaps the effects initially noticed are landmarks or a general structure within which the experience of later effects are categorized. The group 1 items in fact span the entire calibration range, and seem to be marking out significantly different ranges in the items, with the content of the group 1 item signifying a theme common to the group 2 and 3 items falling in that range.

That is, if a student is experiencing enhanced listening ability as an effect (item 22, at the bottom of the scale), then it becomes possible to do the "noticing" (category 2) items right above it, each of which may be in some degree entailed by the first item.

If then the student acknowledges that mindfulness can be learned (item 16), and experiences some gratification in noticing what is usually taken for granted (item 5), then she or he is ready and able to experience the "taken for granted things" in the group 2 and 3 items right above these. When the student in due course breaks through the next group of category 1 items, a new level of critical awareness or attunement is obtained, which supports receptivity to the following group of largely group 3 items. Sticking with that critical attunement then leads to the next group 1 transition into reduced stress (item 8), and the associated group 2 and 3 new balance, centering, and enhanced physical sensations.

Discussion

Our replication of the first study offer further scientific evidence and theory supporting the substantive conjecture that the effects of mindfulness practice are teachable, learnable, and amenable to measurement. Making "non-arbitrary measures" possible in psychometrics was Rasch's "outstanding contribution," according to Jane Loevinger (1965, p. 151). Loevinger further observed that, "When his (Rasch's) model fits, the results are independent of the sample of persons and of the particular items within some broad limits. Within these limits, generality is, one might say, complete" (p. 151). This specific generality makes successful applications of science possible and is crucial to meaningful, linked conversations among the interested parties.

In this context, the historian of science, Bruno Latour, remarked, "Every time you hear about a successful application of science, look for the progressive extension of a network" (Latour, 1987, p. 249). The extension of metrological networks in psychosocial science has been effectively blocked by instrument-dependent and arbitrary numerical representations of its measured constructs. The non-arbitrary measures calibrated in this study begin the work of investigating the possibility that mindfulness may be characterized by lawful regularities in its patterns of presence and absence. Insofar as those lawful regularities are not found to be dependent on the particulars of this study, a common language for interpreting and reading qualitatively-informed amounts of mindfulness presence and absence will emerge.

The first requirement for any network of relations is a medium or a common language. The mindfulness ruler calibrated in this study is a first step in establishing a non-arbitrary common language and

an invitation for further meaningfully linked conversations. Such common languages are in various stages of emergence in different areas of psychology, education, and health care (Dawson, 2002a, 2002b; Fisher, 1997a, 1997b; Stenner, 1994).

What these studies have in common is that scatter plots illustrating the measured relationships are linear. A plot illustrating one-to-one relationships between amounts of length measured in centimeters and amounts of length measured in inches is linear because amounts of length remain invariant across the numerical representations of it. Measures exhibiting the properties of conjoint additivity, invariance, sufficiency, parameter separation, and others which accordingly emerge from data fitting a Rasch model, are linear in the same way.

A scatter plot illustrating a typical correlation of about 0.91 between separate sample calibrations of the mindfulness self-assessment is shown in Figure 1. The constant amounts of mindfulness practice's effects across the samples measured are illustrated in the way the pairs of item calibrations fall together in a consistently orderly pattern roughly along the identity line (an imaginary line extending from the lower left corner to the upper right). Though the item order is constant from T1 to T2, the calibrations are somewhat skewed away from the identity line because, at T1, the students are inexperienced with the construct and unable to distinguish among the effects of mindfulness practice as well as they can after training. This gain in construct definition has been documented in other research, with the suggestion that the items be anchored at their outcome values in practical applications (Bezruczko, 2005).

The pattern is, in addition, not as narrow and linear as a plot of centimeter vs. inch measures of the same objects would be, but it still provides us with a precision of more than four statistically distinct ranges (when reliability is greater than 0.94). These ranges are sections of the measurement continuum that have centers three errors apart (Wright & Masters, 1982, p. 96), and so establish the precision of the calibrations that can be expected to be reliably reproduced for this instrument by samples of about these sizes from the population.

The nature of the population remains an issue for further investigation. Is it the population of all possible students in preservice teacher education programs? Or is it only students in one particular preservice teacher education program? Or will the population studied in this project turn out to be just students in one

program at one particular time? The population might be expanded to include college students in general, or adults in general, but this will be determined only by additional research that focuses specifically on these issues.

Establishing a common language of mindfulness practice effects that researchers can think in together requires more than having different samples of respondents reproduce the calibrations of the items from one instrument. It must also be possible for different samples of items from the infinite universe of all possible mindfulness practice effects items—that is, different mindfulness practice effects instruments—to produce linearly comparable measures that could be expressed in a common metric. Scientific research, properly understood, makes a fundamental priority of this kind of collectively distributed care for the unity and sameness of what is studied.

Human beings, like any form of life, exist in ecological webs of relations. Physical, emotional, social, and spiritual forms of well-being are experienced as projected from networked webs of relations. Susser and Susser (1996) called the future of epidemiology eco-epidemiology, acknowledging the necessity of meaningful communication across molecular, individual, and societal levels of organization.

Similarly, our findings point to the convergence of mindfulness effects across all three ecological levels of relations in positive psychology (Figure 5), and so acknowledge and incorporate the ecological implications of mindfulness practice. Substantial growth in psychological strengths was demonstrated with only one day a week of intentional practice. These effects converge simultaneously with several of The Five Basic Postulates of Humanistic Psychology (Greening, n.d.) and are reflected as well in Figure 5. This strengthening of emotional balance integrated itself positively across the subjective, individual, and social levels. That our calibrated ruler now offers non-arbitrary measures of this growth opens the possibility for testing the efficacy of methods of mindfulness instruction in developing psychological strengths within and between individuals, ecologically. Might one future of the exploration of mindfulness practice be defined by developments in the direction of an eco-positive psychology facilitated by non-arbitrary measures?

Indeed, we have dedicated much space to the details of the quantitative aspects of the study. As the

Positive Psychology/Subjective Level—Valued Subjective Experiences:

Well-being, contentment, satisfaction, happiness
- Notice I feel more positive about the tasks I accomplish (Postulates 3, 5)
- Feel thankful for things I usually take for granted (Postulates 3, 4, 5)
- I often find great peace and joy in ordinary experiences (Postulates 3, 5)
- Notice that I experience a kind of happiness that's different (Postulate 3)
- Makes me feel peaceful (Postulate 3)

Positive Psychology/Individual Level—Positive Individual Traits:

Capacity for Vocation
- Notice I feel more positive about the tasks I accomplish (Postulates 3, 5)
- Reduces my stress (Postulate 3)

Interpersonal skill
- Makes me a more attentive listener (Postulates 3, 4)
- Notice that other people like it when I listen to them this way (Postulates 3, 4, 5)
- Notice more control over my responses (Postulates 3, 4, 5)
- Notice the causes of my emotions (Postulate 3)

Aesthetic Sensibility
- Notice things in nature I never noticed before (Postulate 3)
- Feel thankful for things I usually take for granted (Postulates 3, 4, 5)

Wisdom
- I have more insights (Postulate 3)
- Increases my power to intensely examine my life (Postulates, 3, 5)
- Can observe my thoughts without being caught up in them (Postulates 3, 4, 5)
- Feel thankful for things I usually take for granted (Postulates 3, 4, 5)

Positive Psychology/Group Level—Civic Virtues and the Institutions Toward Better Citizenship:

Responsibility, Nurturance, Moderation, Tolerance, Civility, Work Ethic
- Notice more control over my responses (Postulates 3, 4, 5)
- Notice I feel more positive about the tasks I accomplish (Postulates 3, 5)

Correlations between Seligman & Csikszentmihalyi's (2000) Positive Psychology Definition, Five Postulates of Humanistic Psychology (Greening, n.d.), and Novice Practitioners' Descriptions of Effects of Mindfulness Practice

Figure 5. Positive Psychology and Five Basic Postulates of Humanistic Psychology Link to Effects of Mindfulness Practice for Novice Practitioners

value of qualitative work in the history of mindfulness practice is well established, it seemed more important to deeply describe our quantitative process. As a qualitative researcher, Solloway is well aware of the initial prejudice she herself brought to Fisher's early introduction of the idea that a quantitative corroboration could enhance this work. It was her meditation practice in support of her mindfulness practice that brought her face to face with that prejudice. Solloway's commitment to truly and openly entering the present moment with curiosity dismantled that prejudice in order to more non-judgmentally investigate Rasch models as possibilities for discovering the organic partnership between her qualitative data and the quantitative ruler that data were ready to construct with Fisher's help. We have worked to make that process as transparent as possible.

Issues for Future Research

Several issues present themselves for further study. First, can the effects measured here be reproduced elsewhere by others? Second, can the revised substantive theory of the variable be used to improve the instrument? Third, DIF analysis shows that items 25 and 28 differ significantly by sex; this contrast is confounded a bit by the repetition of the same people across two time points. This issue should be addressed in a later study. Fourth, the participants' overall growth in mindfulness practice as defined by the survey items demonstrates the growth predicted in several sections of the operational definition of mindfulness proposed by Bishop, Lau, Shapiro, Anderson, Carmody, Segal, Abbey, Speca, Velting, & Devins (2004). Follow-up studies can further corroborate this finding. Fifth, what is the nature of the gap separating the five items at the top of the scale from those lower down? Sixth, the suggestive connections between novice practitioners' interest in positive and humanistic psychologies might be further investigated with other studies providing different mindfulness instructions but comparable with non-arbitrary measures. Seventh, the corroboration of the journal entries and the mindfulness ruler to show growth by university students in their ability to mediate the debilitating effects of emotional imbalances, stress, and prejudicial orientations to present moment experience provides important validation for the inclusion of mindfulness assignments at the university. Future research should address these corroborations and analyze the differences using rigorous measurement models.

Conclusions

The study is innovative in at least three ways. First, it demonstrates mindfulness practice as measurable, as teachable and learnable, and as an object of experimental research. Second, it does so through a rich hermeneutic integration of qualitative and quantitative processes (Fisher, 2003a, 2003b, 2004). One of Rasch's probabilistic conjoint models of fundamental measurement is shown to entertain uncertainty and chance in conversation, in order for what is known to converge with differences that make a difference across ecological webs of relations. Third, the study is innovative in its qualitative evidence corroborated by quantitative evidence of the value of mindfulness practice as an assignment in the university classroom. Future research will seek to generalize these findings to other mindfulness settings and measures.

The way has never been more open for researchers to work back and forth between qualitative evidence and more fully mathematical, quantitative measures. To do so with integrity, care must be taken to retain the contemplative and compassionate in the best qualitative work while at the same time holding quantitative methodologies to the rigorous requirements of fundamental measurement. Important obstacles to meaningful conversations have been removed; the way has opened for the proliferation of invitations for meaningful conversations and the means for sustaining those conversations is at hand. We suggest that this work supports not a "type of scientism [which] can be termed methodolatry, the undue elevation of a method to a sacred artifact" (Friedman, 2003), but rather a research/living stance of a curiosity open to the present moment.

Endnotes

1. Portions of this paper were presented at the International Objective Measurement Workshop, April, 2006, Berkeley, CA; American Association for the Advancement of Curriculum Studies, April, 2006, Berkeley, CA; and the American Educational Research Association Conference, April, 2006, San Francisco, CA.
   We thank the reviewers for their helpful insights.

Appendix A:
Journal Entry Samples with Instructor Responses and Pre/Post Measures for Students A, B, C

Week 1

Student A—

Usually when I awake in the morning, my mind is racing with thoughts of everything I need to get done.

Taking deep breaths and trying to clear my mind proved a bit difficult. Lying in bed, trying to be in the now, I could hear my heart beating, and my ears ringing. I could feel that my eyes were itchy, my teeth were throbbing (I grind them in my sleep), and my throat was sore. I thought that I must be doing this wrong, this wasn't fun. Relax more, take another breath, concentrate. Now I noticed that everything has a rhythm, and as I listened and felt that rhythm, I was soothed. Eating my bowl of Kashi, I had to slow down, put my spoon down between bites, and concentrate on each mouthful. I could feel and enjoy the coolness of the milk, the taste and texture of the cereal, the weight and smoothness of the spoon. This was challenging and unnatural for me as I am usually not that aware of eating breakfast. The day continued to be a challenge. Many times I had to stop, breathe, and pay attention to the rhythm to clear my mind. What stands out for me is how easily distracted I am from the moment. Interruptions from my son, my dogs, the phone, but mostly from my own mind, seem a huge obstacle. I need to incorporate all of these into "happenings of the now" instead of intrusions. Being in the moment seemed easier in the evening. Perhaps my mind was tired, or I was less distracted now that the day was near an end. Playing cards with my husband, it was simpler to enjoy just doing what I was doing, and not thinking about anything else. For some reason, this day seemed longer than most. Maybe it was because I became disappointed with myself every time my mind wandered, which was often. I hope, as the mindful days progress, that "being in the now" will become more natural for me.

Good Afternoon, _____,

You wrote: "Maybe it was because I became disappointed with myself every time my mind wandered, which was often." Remember that it is NORMAL for the mind to wander. Mindfulness practice is about NOTICING that. If you notice it OFTEN, that means that you are practicing mindfulness…try to just notice without judging yourself or anything else in the moment…let me know what happens…… Best wishes for your next mindfulness day…ss

Student B—

The first mindfulness day didn't go as well as I would have liked. I didn't stop and pull myself back as much as I would have liked. The one time I really did experience it was after work and classes. I came home and lay down to take a nap. As I lay there, I thought about being mindful and was able to bring myself back into the moment. It was nice to just lay there and hear myself breathe and feel the breeze come in though my open window and fall asleep.

Good Morning, _____!

Best wishes for your next mindfulness day. Be sure to put something close to your bed to remind you as soon as you awake that it is your mindfulness day. Take that first conscious breath of the morning and begin your mindfulness day. Be gentle with yourself. Be happy at whatever number of times you remember during the day to use your breath as an anchor for your attention. In your journal entry, describe at least one mindful moment and analyze how it was different from ordinary moments…I look forward to what you learn…ss

Student C—

Today while trying to be mindful I realized it could be harder than I thought. It was hard at first because I usually daydream and aren't very attentive to what is going on around me. As I paid closer attention to breathing and clearing my head of the daydreaming, I was more attentive to what was actually going on around me. I noticed the bird's chirping, I noticed other people talking as they walked by me, I noticed the construction worker's noise, and in class I was more attentive to the professor and fellow classmates. I was more mindful of what they said and of what I said when talking to them. When talking to my friends I paid more attention to what they were saying instead of half listening and half daydreaming at the same time. It was a clear feeling being mindful all day. It was a nice feeling to actually be in the present when I needed to be.

Good Evening, _____,

Yes, the practice of keeping attention focused in the present moment seems simple. But as you discovered, the mind constantly dashes out of the moment taking our thoughts elsewhere. Best wishes for your next mindfulness day…ss

Week 4

Student A—

Thanks to your input from last week, and the revelation that what was really driving my busy mind was a need for approval, I have found it much easier to focus on the now. It's funny that once I was aware of this, I find being mindful, and my entire day, less stressful. I think I was just seeking exterior goals, the shell as it were, when really, inside I was seeking control of my day. But by keeping my mind on what I am presently doing, instead of what also needs to be done later, each undertaking has become so much more enjoyable and freeing. Do you believe you can actually enjoy a task as mundane as folding laundry? When you're in the moment, you can feel the warmth, feel the textures, smell the fresh scents. Meals taste better, are more plea

surable, and I think you actually eat less because you realize when you've had your fill.

Listening during conversations is gratifying, because you are no longer obsessed with your own agendas, or what you'd rather be doing. It's not that I no longer seek approval, but from my new viewpoint, I no longer need to chase after it. My mind still wanders from the moment, but I can relax, cleanse my mind with a breath, and bring it back. Or, if I am thinking about something, I become aware and allow myself to think. I have to do this every day now, not just one day a week. It's not that this is a radical change, but my patterns of thinking are changing, and you can't just turn that on once a week.

Good Evening, _____,

You wrote, "Do you believe you can actually enjoy a task as mundane as folding laundry? When you're in the moment, you can feel the warmth, feel the textures, smell the fresh scents." YES! One of the most lovely benefits of mindfulness practice is the way it lets you experience the AWE and WONDER of ordinary tasks or experiences! This nourishes the soul and we feel more energy for our lives!... Best wishes for your next mindfulness day…ss

Student B—

I was actually very pleased with my mindfulness this week. Before leaving the house I caught myself at least twice and was able to bring myself back into the moment. The rest of the day I forgot to do it.

Good Morning, _____!

In your next journal entry, try to describe one mindful moment in your day and analyze how it was different from ordinary moments….ss

Student C—

This week my mindfulness brought me back to the senses of walking around campus. Since being sick it is hard to keep focus but I have since recovered and while walking to class this week I was happy that I was finally feeling better and therefore had a better outlook on things. I once again noticed the chatter of people talking and the leaves blowing and rustling and the clatter of high heels clicking along and the construction going on. It is nice being able to walk and listen with a clear head!!

Good Morning, _____,

Glad you are feeling better. Best wishes for your next mindfulness day…ss

Week 8

Student A—

With the holidays approaching, I was afraid I might backslide, start to panic about what needs to be done before family arrives. My need for approval, my old mental habit, might rear its ugly head. But that hasn't happened. This mindfulness is like a natural tranquilizer. It's not that I'm numb or blasé. I'm excited and looking forward to sharing the holidays. It's more like I am at ease, aware of my own mental connections with what's around me. Life is touching me, and I'm allowing it. With the "approval monster" banished, I am free to be sensitive to a whole new realm, and enjoy each experience and mindful moment as it comes. From past experience, I had connected family gatherings with a certain amount of stress; trying to make sure everything was perfect (nothing is ever perfect, so that was unrealistic to begin with). And what for? Approval. And why was approval important? Because it made me feel good, like I should be admired or something. Once I realized how egotistical this really was, and how it was cutting me off, I could clear my mind and end the pursuit. While I was chasing self-satisfaction, life was passing by unnoticed. And like I said before, nothing in life is perfect--but that is okay. Something doesn't have to be perfect to be enjoyed. You just have to ignore your old impulse to fix everything, and instead become comfortable with the reality. No matter what reality brings, it can be beautiful. You don't have to analyze it, manage it, or improve upon it - just be part of it. This holiday season is going to be the best one since childhood.

Good Morning, _____,

Well, this is your last mindfulness journal entry. Thank you for letting me share in this journey with you. It has been a joy….Best wishes for your CONTINUED mindfulness practice…ss

Student B—

My last mindfulness day was very successful. I have come such a long way since the first day of this project. On this day, I was able to successfully catch myself at least ten times and bring myself back. It was an amazing feeling!
Good Afternoon, _____!

Yes, what we cannot change is that you can only live ONE moment at a time AND that the mind constantly wanders! And mindfulness practice empowers you to NOTICE that the mind has wandered, bring it back, and then live that moment with crystal clear energy and wisdom! Best wishes for your continued use of mindfulness practice with ever more expertise beyond this assignment…ss

Student C—

This week's mindfulness journal brought new senses. It got VERY cold this week and as I was standing outside waiting for someone I took a deep breath and although I got a tad colder by doing that I noticed the slight wind blowing the leaves around and smelled the rain in the air that was to come. I love the smell of rain, usually more so in the spring time with the scent of flowers also in the air but I like it nonetheless. I noticed people walking more briskly and shivering loudly as they were disgruntled over the rain and the cold. It was interesting, I never really noticed people that way before because I am usually concentrating on my own wanting to get warm.

Good Morning, _____,

As you discovered, one of the benefits of mindfulness practice is our heightened awareness of others and of the pleasures of the ordinary—like the smell of rain. Best wishes for your continued mindfulness practice…ss

Results

Student A—Pre (50.6) Post (103.3) +52.7
Student B—Pre (38.2) Post (48.5) +10.3
Student C—Pre (34.0) Post (54.3) +20.3

Student A—Pre (50.6) Post (103.3) +52.7
Deep inner work—success measured by the satisfaction of the ordinary made extraordinary and satisfaction of discovering your own complicity in your unhappiness and then using mindfulness practice as a tool to change that

Student B—Pre (38.2) Post (48.5) +10.3
Couldn't remember to do it—success measured by counting how many times you noticed the mind wandering

Student C—Pre (34.0) Post (54.3) +20.3
Joy in heightened awareness of sensory input

Appendix B
Developmental Mindfulness Survey Items
(09-04-05)
Sharon G. Solloway, Ph.D.

Beginning Understandings/Knowing/Impressions

I am learning that paying attention to what is happening right now:

1) …can be learned.
2) …is harder than I first thought it would be.
3) …makes me a more attentive listener.
4) …heightens my sense of smell.
5) …heightens my sense of touch.
6) …makes me notice things in nature that I never noticed before.
7) …makes me feel peaceful.
8) …reduces my stress.
9) …makes me feel thankful for things I usually take for granted.
10) …teaches me to experience the world in an entirely new way.

Intermediate Understandings/Knowing/Impressions

As I practice paying attention to what is happening right now, I notice:
11) …that my mind wanders frequently.
12) …more of my body sensations.
13) …things about myself I never knew before.
14) …that other people seem to like it when I listen to them this way.
15) …more control over my responses.
16) …I feel more positive about the tasks I accomplish.
17) …that I experience a kind of happiness that's different.
18) …the causes of my emotions.
19) …my emotions as they change during the day.
20) …that time loses its meaning.

Advanced Understandings/Knowing/Impressions

When I practice paying attention to what is happening right now, I:
21) …observe my thoughts without being caught up in them.
22) …observe experiences while I participate in them.
23) …often find great peace and joy in ordinary experiences.
24) …feel like I'm seeing for the first time.
25) …have more insights.
26) …notice that ordinary experiences seem extraordinary.
27) …observe things objectively.
28) …increase my power to intensely examine my life.
29) …observe the way things constantly change from moment to moment.
30) …handle all experiences with equanimity.

Developmental Mindfulness Survey Items--Randomized
(9-06-05)
Sharon G. Solloway, Ph.D.

1) As I practice paying attention to what is happening right now, I notice my emotions as they change during the day.

2) As I practice paying attention to what is happening right now, I notice the causes of my emotions.

3) I am learning that paying attention to what is happening right now makes me notice things in nature that I never noticed before.

4) When I practice paying attention to what is happening right now, I observe my thoughts without being caught up in them.

5) I am learning that paying attention to what is happening right now makes me feel thankful for things I usually take for granted.

6) As I practice paying attention to what is happening right now, I notice that time loses its meaning.

7) When I practice paying attention to what is happening right now, I often find great peace and joy in ordinary experiences.

8) I am learning that paying attention to what is happening right now reduces my stress.

9) As I practice paying attention to what is happening right now, I notice that other people seem to like it when I listen to them this way.

10) When I practice paying attention to what is happening right now, I increase my power to intensely examine my life.

11) When I practice paying attention to what is happening right now, I have more insights.

12) As I practice paying attention to what is happening right now, I notice more control over my responses.

13) As I practice paying attention to what is happening right now, I notice I feel more positive about the tasks I accomplish.

14) As I practice paying attention to what is happening right now, I notice that I experience a kind of happiness that's different.

15) I am learning that paying attention to what is happening right now heightens my sense of touch.

16) I am learning that paying attention to what is happening right now can be learned.

17) I am learning that paying attention to what is happening right now teaches me to experience the world in an entirely new way.

18) I am learning that paying attention to what is happening right now makes me feel peaceful.

19) I am learning that paying attention to what is happening right now heightens my sense of smell.

20) When I practice paying attention to what is happening right now, I observe things objectively.

21) As I practice paying attention to what is happening right now, I notice more of my body sensations.

22) I am learning that paying attention to what is happening right now makes me a more attentive listener.

23) When I practice paying attention to what is happening right now, I feel like I'm seeing for the first time.

24) When I practice paying attention to what is happening right now, I observe the way things constantly change from moment to moment.

25) I am learning that paying attention to what is happening right now is harder than I first thought it would be.

26) When I practice paying attention to what is happening right now, I observe experiences while I participate in them.

27) When I practice paying attention to what is happening right now, I notice that ordinary experiences seem extraordinary.

28) As I practice paying attention to what is happening right now, I notice that my mind wanders frequently.

29) When I practice paying attention to what is happening right now, I handle all experiences with equanimity.

30) As I practice paying attention to what is happening right now, I notice things about myself I never knew before.

Appendix D
Individual Research Project Instructions

The research option for this assignment reflects the teacher's need for ongoing inquiries into the "being" of the profession. Teaching is as much "being" as it is "doing."

- "Being" focuses on inquiries in the inner-life of the teacher; constantly developing more refined capacities for heightened awareness in classroom practice.

- "Doing" includes inquiries, which focus on constantly developing more effective content, processes, and structures in the classroom.

Individual Research Project--Being: Study of Personal Efficacy of Mindfulness for Teachers

Mindfulness: Being fully conscious that you are doing whatever you are doing. When walking, be conscious that you are walking. When sitting, be conscious you are sitting. No matter what you are doing, your thoughts are only thinking

about what is happening in the moment. There is no room left in consciousness for thoughts about anything that is not present in the moment….when you are brushing your teeth you are concentrating on the feeling of the brush in your hand, the movement across your teeth, the taste of the toothpaste… etc. (You may also be aware that while you are brushing your teeth—fully aware of the movements /sensations involved— you are also aware that you are planning what you will wear, or what you will do that day.) Mindfulness practice is about being fully conscious of what IS happening RIGHT NOW.

When you discover that your thoughts have strayed away from what is happening RIGHT NOW—for example, you might suddenly realize that your thoughts drifted off into worry about some future event or anxiety over something that happened in the past and this will happen frequently during your "Mindfulness Day"—you take a long, slow breath and let that breath be a reminder to get your thoughts back to what is happening in the present moment.

Mindfulness practice is not a competition to see how few times you have to bring your attention back. You are not "doing it wrong" when you discover that your thoughts have wandered away from what is happening RIGHT NOW. This is NORMAL. Mindfulness practice is about NOTICING that your attention has wandered and then bringing it back with your breath as an anchor or signal to your body/mind that you are bringing all your attention back to the present moment.

No matter how many times your thoughts stray during the day, each time you recognize that they have strayed, just take a breath and bring yourself back to the moment. Your breath will become the anchor that brings you back to what's happening RIGHT NOW. Just as the ship's anchor keeps the ship from straying too far from the anchored spot, so your breath will constantly bring your thoughts back to what is happening in the moment. Keeping your thoughts anchored to the present moment is also known as being "fully present". There are many benefits to this practice, as you will discover during your eight weeks of research.

Beginning with the week of Sept. 26-30 and continuing through the week of Nov. 14-18, you will set aside one day out of each set of five days for your "Mindfulness Day." You may choose any MTWTHF (no weekends) to set up a day of mindfulness (You do not have to use the same (M-F) day each week. Use whatever M-F day is most convenient in any week.) You will figure out a way to remind yourself at the moment of waking that this day is your day of mindfulness. You might hang something on the ceiling or on the wall, a paper with the word "mindfulness" or a twig—anything that

will suggest to you as you open your eyes and see it that today is your day of mindfulness—"Today is your day. Remembering that, perhaps you can feel a your own breath inhaling/exhaling, which affirms that you are in complete mindfulness."

While lying in bed, begin to slowly to follow your breath—slow, long, and conscious breaths. Then slowly rise from bed, nourishing mindfulness by keeping your thoughts on each motion as you rise. Once up, then practice keeping your thoughts on each movement you make as you go through your regular routine of getting ready for the events of your day (and this might include being aware that at the same time you are aware of the movements/events necessary for getting ready, you are also aware of planning your day). *Whatever you do, do it with intentional attention all day.* Consistently bring your attention back to the present moment each time you discover that your attention has strayed by feeling your breath inhaling and exhaling and using that breath as a reminder, an anchor to hold your thoughts in the present moment.

At the end of each of your "Mindfulness Days" or by midnight of the Friday of that week, create an email journal entry. *This journal entry will include your thoughts about your experience of being intentionally mindful for this day….what insights do you have, what stands out to you about the experience, list the ways this day was different for you than your regular days, what body sensations did you experience…what did you notice that you usually don't notice…etc. This journal entry is not to be a list of the events of your day, but rather, a reflection on the way being mindful affected each event of your day.* You will email your entry to xxxx@xxxx.com

In the subject heading of your email journal entry, provide the week, day, and your name (See the Revised Individual Research Timeline for the weeks and dates). For example:
1st Journal Entry—Sept. 30—Jane Doe
You will provide eight journal entries, one for each of the eight weeks.

By class time, Wednesday, Nov. 23, you will submit to xxxx@xxxx.com for my review, a one-page, font 12, single-spaced reflection on your eight "Mindfulness Days."

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A Third Model of Self-Construal:
The Metapersonal Self

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This research adds a third model and measure of self-construal to the current psychological literature: the metapersonal self-construal. This model extends previous theory and research, which has established two self-construal orientations to date: the independent and interdependent self-construal. The research presents a series of studies investigating the theoretical and psychometric properties of the third model and measure. Study 1 produced a valid and reliable 10-item self-report scale of the metapersonal self. Study 2 determined the scale to be low in social desirability bias. Studies 3 and 4 examined the convergent and discriminant validity of the three self-construal scales. Investigations among several variables showed that three unique but related self-construal constructs exist and evidence supports the theoretical underpinnings of each construct.

The concept of the self has had a long history in the field of psychology (for a review see Pervin, 2002). This attention has resulted in a very extensive body of published research (e.g., Allport, 1955; Baumeister, 1998; Cloninger, Svrakic & Przybeck, 1993; Epstein, 1973; Fong & Markus, 1982; Gergen, 1982; Hilgard, 1949; Lecky, 1945; Markus, 1977; Markus & Kitayama, 1991; Markus & Sentis, 1982; Pedersen, 1998, 1999; Robins, Norem, & Cheek, 1999; Rogers, 1947, 1951, 1961; Singelis, 1994; Swann & Read, 1981; Wylie, 1961, 1974). The tremendous interest and attention to the self reveals the importance of this psychological construct.

Within the comprehensive literature of self-psychology lies the specific construct and process of self-construal. Self-construal is the process of the relationship that develops between one's own self, others, and between the self and others (Markus & Kitayama, 1991). This process was described by early writers such as Kelly (1955) and then continued in later writings by Baumeister (1998) and others (e.g., Singelis, 1994).

Kelly (1955) initially introduced the notion of personal constructs into the psychological literature. He stated that individuals construed the meaning of events through an abstraction process and by placing construc-tions upon the experiences. These interpretations or con-struals, according to Kelly (1955), are one's reality.

Baumeister (1998) again describes this process in terms of construing the self. He noted that people develop a sense of self through reflexive consciousness, the inter-personal aspects of the self, and through the executive function. Reflexive consciousness is how one thinks about one's self. For example, how one thinks of failures and successes, how one contemplates the future or makes sense of personal events. This is the process of consciously looking back toward it's own source and constructing a concept of one's self.

The interpersonal aspect of construing the self allows one to examine selfhood by examining the self in social context. When one feels angry, shy, embarrassed, or exhilarated by a particular interpersonal interaction, this reveals the interpersonal aspect, or the self in relation to others.

Finally, the executive function or the agent of the self is the decision-maker. It is also the one who takes specific action. This process involves personal experiences such as quitting smoking, donating to the local food bank, or beginning an exercise program.

It is through these three processes that a relationship between a "separate self" and "independent other" develops. When one construes the information about a relationship between the self and others, this process is specifically known as self-construal. Self-construal is conceptualized as a constellation of thoughts, feelings and actions with respect to one's relationship to others and to the self, as distinct from others (Singelis, 1994).

In 1991 Markus and Kitayama specifically noted that though there was a growing body of psychological and anthropological evidence that people hold divergent views of the self, most psychologists continued to hold the Western view of the individual, that is, the view of an independent, self-contained, autonomous entity. Furthermore, they noted that the psychologists' understanding of self-construal up to that point had arisen from a monocultural approach to the self. These authors expanded this Western view with a more culturally divergent view that included both Western and Asian views (Markus & Kitayama, 1991).

Though there are many global views of the self to date (e.g., Emavardhana & Tori, 1997; Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997; Sedikides, Gaertner & Toguchi, 2003; de Silva, 1990; Oyserman, Sakamoto, & Lauffer, 1998; Unemori, Omoregie, & Markus, 2004), the self-construal literature has remained where Markus and Kitayama have left it.

That is, the current literature specifically on self-construal has two distinct orientations: the independent and interdependent self-construals (Markus & Kityama, 1991). The literature has also produced a valid and reliable self-report measure to assess these two constructs (Singelis, 1994).

The Independent Self-Construal

Previous research on self-construal has focused on the relationship between the self and others. In particular, the major focus has been on the degree to which people see themselves as separate from others or connected with others (Markus & Kitayama, 1991; Singelis, 1994; Triandis, 1988, 1989, 1994).

The independent self-construal is defined as a bounded and stable self, which is separate from social context (Markus & Kitayama, 1991; Singelis, 1994). The constellation of elements that comprise the independent self-construal includes one's own internal abilities, thoughts, and feelings (e.g., I am strong, I am thoughtful, I am energetic). The self is then expressed as a unique being that promotes one's own goals and focuses on one's abilities, attributes, and characteristics rather than on others (Singelis, 1994).

When referring to others, individuals with an independent self-construal will consider others in terms of characteristics and attributes (e.g., he is intelligent, he is achievement striving) rather than on relational factors (e.g., he is my brother). This construct is also described as individualism (Allik & Realo, 2004) and agency (Diehl, Owen, & Youngblade, 2004). It is noted by Pervin (2002) that this view is based on the Western view of the individual as independent and self-contained. When studying the self in other cultures, however, another view of the self emerges.

The Interdependent Self-Construal

It is suggested in both anthropological and psychological studies that another self-construal exists when studying Japanese and other Asian cultures (Cross & Madson, 1997; DeCicco & Stoink, 2000; Han, 2002; Marsella, DeVos, & Hsu, 1985; Pervin, 2002; Morris, 1994; Wang, Bristol, Mowen, & Chakraborty, 2000). This is now known as the interdependent self-construal, which is defined as a flexible and variable self. This self-reference emphasizes external or public features such as statuses, roles and relationships (e.g., I am a professor, I am a mother) (Cousins, 1989; Markus & Kitayama, 1991; Shweder & Bourne, 1984).

This self-construal is concerned with belonging and fitting in with others such that the self and others are not separate from situations, but are molded by them (Markus & Kitayama, 1991; Singelis, 1994). Markus and Kitayama (1991) are two key authors who have successfully described self-construal for both Western and Asian cultures. Authors have described this as collectivism (Allik & Realo, 2004) and communion (Diehl et al., 2004).

Though theory and research on the independent and interdependent self-construals have been well documented, many authors (e.g., Hill, 2006; Ho, 1995; James, 1902/1999; Friedman, 1983; de Silva, 1990) have noted and described a self-construal that is neither independent nor interdependent in nature. Therefore, a third self-construal construct has been described that is distinct from the other two.

The Metapersonal Self-Construal

It is clear that the two current self-construal constructs cannot describe the self-orientation of all

individuals. For example, people who hold an Eastern view of the self (Ho, 1995; Stroink & DeCicco, 2002), a transcendent self (Hill, 2006; Walsh & Vaughan, 1993), or a self-expansive view (Friedman, 1983) cannot be described in terms of the current two definitions of self-construal. Rather, these descriptions of the self are not bound by personal attributes nor defined only by social context because these self-references extend beyond the individual and close others (Westen, 1996). This orientation is decentered and free from egocentricity in that the individual is not focused entirely on the self or on ego-focused needs (Ho, 1995).

From the definition of self-construal, the process occurs via reflexive consciousness, the interpersonal aspect of the self and, the executive function of the self (Baumeister, 1998). Reflexive consciousness, or how one thinks about one's self, develops for the metapersonal self when an individual reflects on others or things and sees them as part of the self. For example, how one contemplates world poverty may reflect the metapersonal self if world poverty is seen as one's own poverty (e.g., if people are poor then I am poor because all people are a part of me). This process of the self consciously looking back toward its own source and constructing a concept of one's self, in terms of all others or all things, is one step in the process of developing the metapersonal self-construal.

The second step in developing this form of self-construal is the interpersonal aspect of construing the self, which allows one to examine selfhood in social context. When one construes the self as connected to all things, all groups, all life, and all of creation then this reveals the self in social context as metapersonal.

Finally, the executive function or the agent of the self is the decision-maker and the one who takes specific action. When the agent of the self behaves in a manner that takes into account all things (e.g., I do not purposely pollute the planet because it harms all life), then the executive function is that of the metapersonal self.

It is through these three processes that a relationship between a "separate self" and "independent other" develops and hence develops a self-construal. When one construes the information about a relationship between the self and others as one that includes all things, all life, all of creation, then this construal is the metapersonal self-construal.

This self-construal is conceptualized as a constellation of thoughts, feelings, and actions with respect to one's relationship to others and to the self, as distinct from the other two types of self-construal (Singelis, 1994). This view of the self is contrary to the Western view of the self-as-subject or the self-as-object (DeCicco & Stroink, 2000; Stroink & DeCicco, 2002; Westen, 1996). It is defined as a sense of one's identity that extends beyond the individual or personal to encompass wider aspects of humankind, life, psyche, or the cosmos (Walsh & Vaughan, 1993). The descriptive self-representations of individuals who refer not to individual attributes (as with the independent self), nor to relationships and social groups (as with the interdependent self), but to an essence beyond the individual and others to a universal focus (e.g., I am connected to all of humankind, I am part of a natural order) is that of the metapersonal self-construal. Given that related constructs of this self-reference have been recognized throughout the psychological literature in many forms (e.g., Boorstein, 1994; James, 1902/1999; Walsh & Vaughan, 1993; Wilber, 1979), a complete model and measure in terms of self-construal are warranted.

The Three Types of Self-Construal

It must be noted here that past research has also revealed the importance of cultural accommodation-hybridization (Oyserman et al., 1998). That is, it has recognized there are individuals who are high in both individualism, which is similar to the independent self-construal, and collectivism, which is similar to the interdependent self-construal. Similarly, DeCicco and Stroink (2000) and Arnocky, Stroink, and DeCicco (2007) have found individuals who are high in both the independent and metapersonal self-construals. These findings suggest that the three self-construals are not mutually exclusive and may co-occur, depending on how the self is developing. The current research on self-construal certainly suggests that further studies are needed to explore this notion both theoretically and empirically.

Linking the Metapersonal Self to Current Literature

As previously mentioned, the theoretical and conceptual view of the metapersonal self has been described throughout the psychological literature. This concept appears in areas as diverse as social and personality psychology (see Csikszentmihaly, 1993; James, 1902/1999, 1890/1950), cross-cultural psychology (for a review see Stroink & DeCicco, 2002, 2003) and the transpersonal literature (Boorstein, 1994; Pappas & Friedman, 2007; Walsh & Vaughan, 1993; Wilber, 1979). Descriptions

of this self-construal are cited as far back as 1902 in the writings of William James.

William James (1902/1999, 1890/1950) described a spiritual self in which the boundary between the self and the environment vanishes. This description of the self includes the feeling of unity with all things. That is, objects that were formally defined as outside the self become merged with the self. The spiritual self describes a self-construal unlike that of the independent or the interdependent self; rather, it is a self that includes all things. Similarly, Friedman's (1983) notion of self-expansiveness is one that implies the possibility of identification with any and all aspects of existence.

This self-reference has also been described as a permanent or transcendent view of the self (Walsh & Vaughan, 1993). When a person is able to shift from a personal focus of the self to a universal focus as described by Hill (2006), this describes the metapersonal self-concept. This shift is away from the me-focused or other-focused to a cosmic or universal view.

The metapersonal self is again described in the literature on close attachments when it is hypothesized that individuals can feel close to others because they feel at one with them (Aron & Aron, 1986, 1996; Brown, DeCicco, & Stroink, 2005: Cialdini, Brown, Lewis, Luce & Lueberg, 1997). This concept of oneness occurs because people perceive themselves in the other. This is a sense of shared, merged, or connected personal identities (Cialdini et al., 1993). If this belief is held consistently by an individual and is not simply a state phenomenon, then the metapersonal self-construal would result.

Though there are descriptions of this third model of self-construal throughout the psychological literature there is no scientific measure of this specific construct to date. It is now the direction and focus of this paper to design a valid and reliable measure of self-construal that includes all three dimensions of this construct.

An Overview of The Studies

In order to test the theoretical conceptualization of the new self-construal construct, a series of psychometric studies were conducted. The psychometric approach adopted here was one that previous research has adopted when testing adherence to principles in underlying theory (e.g., Hewitt & Flett, 1991a; Kohn & O'Brien, 1977; Kohn, O'Brien-Wood, Pickering, & DeCicco, 2003; Statsoft, 1995). That is, our work is in line with studies providing validation of the measure-

ment of a construct by demonstrating that the construct exists separately from existing or related constructs (e.g., independent and interdependent self-construal).

Five pilot studies (DeCicco & Stroink, unpublished data) initially indicated that further testing was warranted and therefore, complete scale construction and testing was undertaken. As is conventional with scale construction, social desirability of the scale was examined. Given the evidence from Studies 1 and 2, Studies 3 and 4 then tested scale reliability and validity. Convergent and discriminant validity was established through relations with variables that are theoretically and statistically linked to self-construal.

Study 1: Scale Construction

The initial steps in developing the measure of a psychological construct involve the generation of a large pool of items, and then selecting the best items based on reliability scores (Jackson, 1970; Statsoft, 1995). The purpose of Study 1 was to develop a reliable set of items, which were rooted in self-construal theory and fully tapped into the dimensions of the metapersonal self.

Method

Item Generation and Selection

Descriptive statements reflecting the metapersonal self-concept were derived from theoretical discussions by the authors and one expert in the field of self-psychology (McCann, 2000, personal communication). Items were initially chosen that identified the underlying principles of the construct that lead to self-construal. That is, items that represented reflexive consciousness (e.g., I see myself as being extended into everything else), the self in social context (e.g., I am aware of a connection between myself and all living things), and agency of the self (e.g., I feel a sense of responsibility and belonging to the universe). The items ranged from the highest end of the continuum (completely metapersonal) to the lowest end of the continuum (somewhat metapersonal). The items were also scrutinized and some were eliminated in order to minimize redundancy. Keeping within the conceptualization of the metapersonal self, the items were written to reflect beliefs (I believe that no matter where I am or what I'm doing, I am never separate from others), characteristics (I feel a sense of responsibility and belonging to the universe), cognition (I am aware of the connection between myself and all living things), and recurrent ways of construing the self (my sense of

identity is based on something that unites me with all other people).

Pilot Studies

(1) The initial list of 50 items was presented to 45 readers who were asked to answer each item on a 7-point Likert scale and to comment on the statements for readability and clarity. Responses range from 1 (Strongly Disagree) to 7 (Strongly Agree). The items were corrected, reworded, or deleted, depending on the reader's responses. The statistical package STATISTICA (Statsoft, 1995) was used for data management and analyses. The item means and standard deviations were examined and items that had extreme means were eliminated. This resulted in a 12 item-scale that could be rated on the 7-point Likert scale. The items represented the full range of the psychological construct being measured. The 12-item scale was then given to a focus group of 5 readers (psychology graduate students) for comment. No changes were made by the focus group.

(2) Two pilot studies were then conducted with university students (N=215) and one with community dwelling adults (N=243) in order to test the reliability of the 12-item measure. The reliability and item analysis module of STATISTICA (Statsoft, 1995) includes an option that allows the user to compute how many items would have to be added or deleted to achieve a particular reliability. No items were removed.

(3) Two new studies were conducted with university students (N1=118, N2=127) using the 12-item metapersonal scale and the 30 items measuring the independent and interdependent self-construals. The alpha coefficient for the metapersonal self scale was found to be good (.80) for both studies, based on conventional standards (Nunnally, 1978).

(4) Factor analysis was performed on the data with the 12 metapersonal items and the 30 independent and interdependent items. Three factors emerged with the analyses.

Testing and Scale Construction for Study 1

Given the findings from the pilot studies, Study 1 was then conducted to further test the scale's psychometric properties and to test the following: 1) The metapersonal self scale will be correlated with the independent self scale since they are theoretically related (DeCicco & Stroink, 2000; Stroink, DeCicco, Mehta, & Sathanantha, 2005) but fundamentally different constructs (DeCicco

& Stroink, unpublished data), and not correlated with the interdependent scale (DeCicco, Stroink, & Brown, unpublished data). 2) The factor analytic structure of the 42 self-construal items will reveal 3 separate factors, though some crossover of items is expected (DeCicco & Stroink, 2000).

Participants

Participants for this study were 115 university undergraduate students (19 males and 96 females) studying psychology at a Canadian University. The mean age of the sample was 22.3 years ($\underline{SD}$=3.73).

Measures

Participants completed a consent form and a 42-item Self-Construal Scale (SCS). This scale included 30 items from the Singelis (1994) scale of independent and interdependent self-construal and 12 metapersonal items. The items from the three scales were intermixed into one scale. A demographics page with age and sex was also included.

Procedure

Undergraduate students in a first year psychology class were asked to volunteer for participation in research. They were given 30 minutes of class time to complete the questionnaire package.

Results

Reliability

The means, standard deviations, alpha reliabilities and intercorrelations for the three self-construal scales appear in Table 1. The reliability was acceptable by conventional standards (Nunnally, 1978) for both the independent scale and the interdependent scales, at .79 and .75 respectively. The reliability for the metapersonal self-scale was acceptable at .77. When the items of the metapersonal self-scale were scrutinized with the statistical package, it appeared that the reliability could be improved by removing 2 items. Upon scrutinizing the items, they appeared to be redundant in terms of the underlying principles of the construct. Also, the statistical module indicated that the scale's alpha would be .80 if two specific items were removed. Removing the items resulted in a 10-item scale with the reliability of .80. Hypothesis 1 was supported with the metapersonal self-scale significantly correlated with the independent self-scale (r =.57, $\underline{p}$ < .01) but not supported with a small correlation between the metapersonal self and the inter-

dependent self (r=.21 , p<.05). These findings imply that the self-construal factors are related in some way and future research needs to explore this further.

Factor Analysis

Confirmatory factor analysis was performed in order to test Hypothesis 2 (Table 2). A scree plot supported a 3-factor solution. Items loaded with values ranging from .35 to .76, however, there were several items that crossloaded onto 2 factors and needed to be assessed more closely. The criteria for fit in the model was followed by Hu & Bentler (1999) which was later partially replicated by Sivo (2006).

Seven items loaded on factor 1 (.36 to .76). These items reflected the metapersonal self-construal. One metapersonal item loaded onto factor 3, which represents the independent construct, and one item loaded onto factor 2, which represents the interdependent construct. Metapersonal item 6 did not significantly load onto any of the factors. Item 6 states: "I believe that intuition comes from a higher part of myself and I never ignore it." The reliability analysis did not indicate that this item should be deleted. However, further psychometric testing is warranted in future studies.

Eleven items loaded onto factor 2 (.35 to .72) and reflected the interdependent self-construal. Seven items loaded onto factor 3 (.47 to .68) reflecting the independent self-construal. Two items reflecting the independent self-construal and one item reflecting interdependence loaded onto factor 1 (the metapersonal construct). Also, one interdependent item loaded on both factors 2 and 3.

Some item overlap is expected since the items tap into the full range of the self-construal construct. Conceptually, individuals will have some elements of all three self-construal constructs and some may be high in all three. The alpha reliability of the scale was examined to explore if the three items should be deleted. It was found that the scale's reliability would not change if any or all of the three items were deleted.

Also, the means and standard deviations of the three items did not warrant deleting any of the items since they were consistent with the other items on the scale. Further testing is needed before eliminating the three crossloading items from the scale. At this point, both the theory and the reliability results suggest that a 10-item scale is warranted.

Discussion

Study 1 yielded a valid and reliable 10-item measure of the metapersonal self-construal construct (see Appendix). The results of factor analysis provide evidence that the metapersonal self, the independent self, and the interdependent self are distinct but related constructs. Factor analysis also indicates that three factors exist, with crossloadings for some independent and metapersonal items. Only one metapersonal self-item crossloaded onto the interdependent factor. This supports theoretical underpinnings, that the interdependent and metapersonal factors are not strongly related. The crossloadings between the metapersonal and the independent items suggest that there is a relationship between these two factors, as was hypothesized. These analyses also suggest that further studies are needed to fully distinguish the similarities and the differences between the metapersonal self and the independent self, or that individuals may hold one or more self-construals. Future research should address the possibility that individuals may be construing the self in this more complicated manner.

One limitation of the research is that the sample had far more females than males. This representation is normal for the university where the sample was collected and has been noted in previously published research (e.g., DeCicco, 2007a; King & DeCicco, 2007). Further studies should aim to address the gender bias if possible, since gender may influence the ways in which individuals construe the self. Another limitation is that this is the first series of studies to examine three constructs of self-construal. Though this research has begun the process of extending the self-construal literature, future research is definitely warranted.

In summary, the 10-item metapersonal self (MPS) scale appears to be a valid measure of the metapersonal self with high internal consistency. Furthermore, though the three constructs are separate, consistent with previous research (DeCicco & Stroink, 2000; Stroink & DeCicco, 2002), the metapersonal self-construal appears to be related to the independent self-construal.

The findings from Study 1 indicate further psychometric studies are warranted. Studies examining social desirability as well as convergent and discriminant validity are necessary.

Study 2: Testing Social Desirability

Study 2 was conducted to examine the relationship between the MPS scale and a social desirability

measure. Two samples were tested (N1=61, N2=236). It was expected that there would be a non-significant correlation between the MPS scale and the Marlowe-Crowne (Crowne & Marlowe, 1960) social desirability measure for both studies.

Method

Participants

Participants for sample 1 were 61 university undergraduates (10 males, 51 females) with a mean age of 24.37 years (SD=4.36). Sample 2 included 236 university undergraduates (30 males, 206 females) with a mean age of 20.29 (SD=4.9).

Measures

Demographic Information: This measure included gender and age.

MPS Scale: This 10-item self-report measure was designed in Study 1.

The Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960): The Marlowe-Crowne scale is a 33-item measure of social desirability widely used in the psychological literature.

Procedure

Undergraduate students were given a questionnaire package during class time and had 15 minutes to complete the questionnaires. Participation was anonymous and voluntary. Students were given a bonus point for participating in the study, as per their course outline, which identified bonus points for research participation.

Results

The correlation between the Marlowe-Crowne Social Desirability Measure and the MPS scale in sample 1 was non-significant at -0.15. The alpha reliability for the metapersonal self-scale was 0.89. The findings were replicated with a second sample, where the correlation between the metapersonal self scale and the Marlowe-Crowne measure was .00. The alpha reliability for the metapersonal self-scale was .82 in the second sample.

Discussion

The non-significant correlation between the Marlowe-Crowne and the metapersonal self-scale in both samples of Study 2 suggests that the scale is free from social-desirability bias. However, further construct validation

is needed. Cohen (1992) suggests that to estimate power, researchers should use previous research. The estimate for N was based on previous studies (DeCicco, unpublished data).

Studies 3 and 4: Convergent and Discriminant Validation

One of the requirements when developing a new psychological measure is to demonstrate that the scale measures what it purports to measure (Cronbach & Meehl, 1955; Wiggins, 1973). The purpose of Studies 3 and 4 was to test the validity of the MPS scale in terms of emotions, racism, intolerance of ambiguity, self-ratings, forgiveness, and religious variables. These studies were designed to discriminate each of the three self-construal constructs as unique entities.

Study 3

Self-Construal and Emotions

It has been demonstrated in the literature that individuals with different self-construals or self/group attitudes also differ in terms of emotions (Brown et al., 2005; Esses, Haddock, & Zanna, 1993; Kitayama & Markus, 1994; Kitayama & Markus, 1994; Kitayama, Markus, & Kurokawa, 2000; Markus & Kitayama, 1991; Sato & McCann, 1998). Research suggests that individuals with an independent self will experience more ego-focused emotions such as anger, frustration, and pride (Markus & Kitayama, 1991). Individuals with the interdependent self-construal will experience more other-focused emotions such as sympathy and shame (Markus & Kitayama, 1991). Since the metapersonal self has been found to be correlated with the independent self but not with the interdependent self (Brown et al., 2005; Stroink et al., 2005; Nesbitt, 2005), examining the ego-focused emotions in relation to both the independent and metapersonal orientations is necessary. Therefore, the current study extended the research by assessing the ego-focused domains of anger, confusion, fatigue, and vigor, with both the independent and metapersonal self-construal scales.

Furthermore, since depression and anxiety have been specifically linked to self-construal (DeCicco, 2006; Sato & McCann, 1998) with the independent and interdependent self, it follows that these would also be examined with all three measures of self-construal. Again, this would confirm previous findings and extend the self-construal literature.

The following hypotheses were tested: 1) Consistent with previous research (Pervin, 2002) the independent self-construal will be correlated with the ego-focused emotions of vigor, fatigue, anger, and confusion. 2) There will be a negative association between the independent self-construal and depression, as found by Sato and McCann (1998). Also, consistent with the latter research, a negative association would be found between the independent self-construal and anxiety. 3) Consistent with previous research, the interdependent self-construal would be correlated with depression (Kitayama, Markus, & Kurokawa, 2000; Pervin, 2002; Sato & McCann, 1998). 4) There will be a relationship between the metapersonal self-construal and the emotions tested here. Though there is preliminary evidence supporting this hypothesis (DeCicco, unpublished data), this investigation is purely exploratory at this point.

Self-Construal and Intolerance of Ambiguity

The definition of the independent self-construal states that these individuals define themselves as a bounded and stable self, which is separate from social context (Markus & Kitayama, 1991; Singelis, 1994). The constellation of elements that comprise the independent self-construal includes one's own internal abilities, thoughts and feelings (e.g., I am strong, I am thoughtful, I am energetic). This definition implies that the independent self-construal has rigid limits around the self. However, information from outside the self (e.g., relational information) is not threatening or incorporated into the self.

The interdependent self-construal is defined as a variable self as compared to the independent self. This self-reference emphasizes external or public features such as statuses, roles, and relationships (e.g., I am a professor, I am a mother) (Markus & Kitayama, 1991; Shweder & Bourne, 1984). This definition defines a self that is dependent on external information (e.g., relational information). Finally, the metapersonal self-construal definition suggests that the metapersonal self has a sense of identity that extends beyond the individual or personal to encompass wider aspects of humankind, life, psyche, or the cosmos (Walsh & Vaughan, 1993) into one's own self.

Given the three descriptions of self-construal, theoretically they should correlate differently with the personality variable of intolerance of ambiguity. Intolerance of ambiguity is defined as the tendency to perceive ambiguous situations as a source of threat (Budner, 1962).

The concepts of rigidity and intolerance of ambiguity are closely related both theoretically and historically. Budner noted that one's degree of tolerance and intolerance of ambiguity is related to self-image and self-evaluations. Self-image and self-evaluations are closely related to self-construal. Budner found that people who are intolerant of ambiguity tend to hold perceptions of the self that are more structured than those who are more tolerant of ambiguity. Based on this conceptualization, self-construal should be directly related to a measure of intolerance of ambiguity.

The following hypotheses are postulated: 1) Since individuals with an interdependent self-construal define themselves from situational information, it is hypothesized that there will be a positive and significant correlation between interdependent self-construal and intolerance of ambiguity and, 2) since individuals who hold a metapersonal self-construal view themselves as connected to all others and take all external information into the self, there will be a negative and significant correlation between the metapersonal self-construal and intolerance of ambiguity.

Self-Construal and Racism

The interpersonal aspect of the self, which is selfhood in relation to others (Baumeister, 1998), is directly related to racism. That is, racism is a construct based on intergroup relations (McConahay, 1983). If one perceives others to be more similar to themself in terms of race, then they are considered "in their group" and racist attitudes will not be held. In terms of the metapersonal self, since individuals who hold this self-construal see themselves connected to all people (hence all races) these individuals cannot be metapersonal and hold racist beliefs. Based on this theory, the following hypothesis was tested: 1) Since people with a metapersonal self-construal see their own selfhood in all people and all races, there would be a significant negative correlation between a modern racism scale and the MPS scale.

Racism is currently measured with items measuring old-fashioned racism and items measuring modern racism. Social and political items are used as filler items. Research has shown that old-fashioned racism has lessened to some degree but contemporary or modern racism attitudes are present (McConahay, 1983). Measures of racism currently include both old-fashioned and modern racism items for complete assessment and for comparison (McConahay, 1983; McConahay, Hardee,

Batts, 1981). This study will use a modern racism scale that has converted items for a Canadian sample (Lalonde, Doan, & Patterson, 2000), which is more appropriate for the sample being tested in this study.

Self-Construal and Self-Ratings

In her early research Markus (1977) found that individuals who rated themselves high in the independent self-construal also rated themselves more likely to behave in independent ways than dependent ways. Similarly, she found that people high in the interdependent self-construal rating rated themselves more likely to behave in interdependent ways than independent ways. This being the case, individuals who rate themselves high in the metapersonal self should also rate themselves more likely to behave in ways that reflect the metapersonal self-construal. It is expected that people high in the metapersonal self would rate themselves high in those behaviors defined by that self-construal, and lower on those of the independent and interdependent self-construals. Therefore, the three self-construal orientations should be distinguishable by descriptive self-ratings by the participants.

Following from previous findings on self-ratings, self-rating scales were developed for each scale. The self-rating items came directly from the definition of each self-construal construct. The scales were developed in accordance with previous research on scale construction and validation testing (see Kohn et al., 2003). For the independent self-construal, the self-rating statement was: "People who have the 'independent self-construal' mostly see themselves as separate, unique individuals. When these people describe themselves they typically list their internal attributes that make them different from others (e.g., I am courageous, I am smart, I am strong). How accurately does this description of the independent self-construal describe you?" Participants circled the appropriate number from 1 (Not at all accurately) to 7 (Very accurately).

The self-rating scale for the interdependent self-construal stated: "People who have the 'interdependent self-construal' mostly see themselves in terms of their personal relationships and social groups. When these people describe themselves they typically do so in terms of their position in a relationship or groups (e.g., I am a daughter, I am Canadian, I am a boyfriend). How accurately does this description of the interdependent self-construal describe you?" Participants circled the appro-

priate number from 1 (Not at all accurately) to 7 (Very accurately).

Finally, the metapersonal self-rating stated: "People who have the 'metapersonal self-construal' mostly see themselves as having an awareness, or a sense of unity between themselves and all things (or all life). When describing themselves, these people typically do so in terms of having a connectedness to all things and to an essence that extends beyond the self (e.g., I am part of nature, I am part of the universe, I am all living things). How accurately does this description of the metapersonal self-construal describe you?" Consistent with the other self-rating scales, participants circled the appropriate number from 1 (Not at all accurately) to 7 (Very accurately).

Based on the self-rating scales, the following hypotheses were tested: 1) People who score high on the metapersonal self-construal scale will rate themselves more likely to behave in metapersonal-self ways. For example, people who score highly on the metapersonal self scale will score high in feeling connected to all things in the universe. Therefore, there will be a positive correlation between the metapersonal self-construal and a metapersonal self-rating. 2) Given the findings by Markus (1977), there will be a positive correlation between the independent self-construal and the independent self-rating. 3) Similarly, there will be a positive correlation between the interdependent self-construal and the interdependent self-rating. 4) There will be a negative correlation between the independent self-construal and the interdependent self-rating. 5) There will be a negative correlation between the interdependent self-construal and both the metapersonal and the independent self-rating scales. 6) Since the metapersonal self and the independent self have been found to be correlated in past research (Brown et al., 2006; Stroink et al., 2005; DeCicco, 2006; Nesbitt, 2005) there will be a positive correlation between the metapersonal self-rating and both the metapersonal and independent self-construal scales. People who rate themselves as having a metapersonal self will identify with both the metapersonal and the independent self-construals. However, people who rate themselves as independent on the self-rating scale will only be high in independent self-construal.

Method

Participants

Participants included 105 university students (15 males, 90 females). Their mean age was 20.5 years ($\underline{SD}$ = 2.28).

Measures

A questionnaire package of the following scales was administered:

Self-Construal Scale (SCS): This 40-item scale consists of Singelis' (1994) 30-item independent and interdependent scale and the 10-item metapersonal self scale designed in Study 1.

Profile of Mood States (SV-POMS; Schacham, 1983): The short form measure consists of 37 adjectives and descriptive phrases which are rated on a 5-point Likert scale. The measure assesses the factors of tension/anxiety, depression/dejection, confusion/bewilderment, fatigue/inertia, and vigor/activity over the course of the past week. The POMS has been deemed both reliable and valid (Grove & Prapavessis, 1992d; Jianping, Haiyong, & Wenliang, 2004).

Intolerance of Ambiguity (ToA; Budner, 1962): A measure that assesses the tendency to perceive ambiguous situations as a source of threat, this 16-item measure has been found to be associated with other similar scales (Budner, 1962) and related to other relevant constructs (Jost et al., 2007; see Grenier, Barrette, & Ladouceur, 2005 for a review.)

Modern Racism scale (MR; developed by McConahay et al., 1981, and then adapted to a Canadian context by Lalonde et al., 2000): This adapted version is more appropriate for testing given that the participants were Canadian, and is deemed reliable and valid.

Self-Construal Self-Rating Scales: A self-rating scale for each self-construal construct was administered. The rating scales represent behaviors that reflect each of the three self-construals independently (see items on page 12).

Procedure

Undergraduate students in a first year psychology class were asked to volunteer in a research project. Students were given approximately 45 minutes to complete the questionnaire package.

Results

See Table 3 for the correlations among the three self-construal scales, intolerance of ambiguity, racism and, emotions. See Table 4 for the intercorrelations among the three construal scales and the self-rating scales.

Self-Construal and Emotions

Some of the hypotheses were supported for self-construal and emotions. The independent self-construal scale was positively correlated with vigor (r= .38, p < .01) and negatively correlated with confusion (r= -.21, p < .05), depression (r=-.32, p < .01), and anxiety (r= -.28, p < .01). There was no significant relationship with fatigue or anger. The interdependent self-construal scale was not significantly correlated with any of the emotion measures in this study.

The metapersonal self-construal scale was positively correlated with vigor (r= .28, p < .01) and negatively correlated with anxiety (r= -.26, p < .01). There were no significant relationships with anger, confusion, depression or fatigue.

Self-Construal and Intolerance of Ambiguity

The results supported both hypotheses for self-construal and intolerance of ambiguity. The metapersonal self-scale was negatively correlated with intolerance of ambiguity (r= -.26, p < .01) and the interdependent self-scale was positively correlated with intolerance of ambiguity (r= .26, p < .01).

Self-Construal and Modern Racism

The hypothesis tested for the metapersonal self-construal and racism was supported in Study 3. The metapersonal self-scale was negatively correlated with the scale for racism (r= -.32, p < .01).

Self-Construal and Self-Rating Scales

The metapersonal self-scale was positively correlated with the independent self-rating scale (r= .42 p < .01) and the metapersonal self-rating scale (r= .79, p < .01), and negatively correlated with the interdependent self-rating scale (r= -.39, p < .01). The independent scale was correlated with the independent self-rating scale (r= .35, p < .01) and the metapersonal self-rating scale (r= .40, p < .01), and negatively correlated with the interdependent self-rating scale (r= -.33, p < .01). Finally, the interdependent scale was positively correlated with the interdependent self-rating scale (r= .21, p < .05) and negatively correlated with the independent self-rating scale (r= -.28, p < .05).

Regression Analysis

Since there was a positive correlation between the metapersonal self-rating scale and both the meta-

personal scale and the independent scale, this relationship was further examined with a regression analysis. A regression analysis was conducted with the independent and metapersonal self scales predicting metapersonal self-rating (see Table 5). The results reveal that the metapersonal self-scale significantly contributes to metapersonal self-rating but the independent self-scale does not. These findings imply that though both scales were correlated with the metapersonal self-rating, only the metapersonal self-scale predicts metapersonal self-rating.

Discussion

Self-Construal and Emotions

Hypothesis 1 stated that the independent self-construal would be correlated with the ego-focused emotions of vigor, fatigue, anger, and confusion. It was found that only vigor was positively correlated with the independent self and confusion was negatively correlated with the independent self. This implies that people with an independent self-construal are high in energy and low in confusion. Since people with an independent self-reference define themselves within strict narrow limits, it seems reasonable that their level of confusion would be low.

Consistent with previous research (Sato & McCann, 1998), hypothesis 2 was confirmed in that the independent self was negatively correlated with depression. Furthermore, the research extends this finding with the negative correlation between the independent self and anxiety. Since anxiety and depression are highly comorbid, it is expected that both depression and anxiety would be negative correlates of the independent self. These findings imply that people with the independent self-construal are low in both depression and anxiety.

Hypothesis 3 stated that the interdependent self-construal would be correlated with depression and anxiety, however this was not found to be the case. Sato and McCann (1998) found a small, significant correlation (.11) between the interdependent self and depression. The findings in the current study found a correlation of .14 that was non-significant. One limitation of the current study was that a smaller sample size was tested than that of the Sato and McCann study. This may have resulted in the non-significant correlation. Given this limitation, the study warrants replication with a larger sample size. Further research should also

include the independent/interdependent measures used in this research and the sociotropy-autonomy scale used by Sato and McCann (1998, 2002) before firm conclusions are made regarding interdependent self-construal and depression.

Hypothesis 4 was purely exploratory and stated that there would be a relationship between the metapersonal self and several of the emotions tested. It was found that the metapersonal self-construal was negatively correlated with anxiety but not correlated with depression. There was no relationship with confusion, anger or fatigue. Interestingly, the positive correlation between vigor and the metapersonal self suggests a relationship between the metapersonal self-construal and higher levels of energy. This could mean that physical health and the metapersonal self are related. One recent study investigating the relationship between self-construal and well-being suggested that the metapersonal self predicts general well-being (Stroink et al., 2005). Overall, these findings indicate that further studies examining the relationship between the metapersonal self and emotions, and between the metapersonal self and health, are both needed and warranted.

Self-construal and Intolerance of Ambiguity

Hypothesis 1 was supported by the research and states that the independent self-construal would not be correlated with intolerance of ambiguity. This implies that people with an independent self-construal do not compare themselves to external situations and therefore would not perceive ambiguous situations as sources of threat. This finding is also consistent with the previous findings that the independent self is negatively correlated with anxiety. People who do not find ambiguous situations threatening should also be low in anxiety.

Hypothesis 2 was supported in that there was a positive correlation between the interdependent self and intolerance of ambiguity. This finding implies that people who define themselves in terms of specific groups will find ambiguous situations undesirable. The implication here is that for people with an interdependent self-construal there is a need to fit themselves into a group, and therefore ambiguous information would be intolerable.

Hypothesis 3 stated that the metapersonal self would be negatively correlated with intolerance of ambiguity. This hypothesis was in fact supported, which implies that people with a metapersonal self-construal,

who have a selfhood that is connected to all things, can tolerate ambiguous situations. In comparing the three self-construals, metapersonal individuals can tolerate ambiguous situations, interdependent individuals cannot, and there is no relationship between intolerance of ambiguity and the independent self.

Self-Construal and Racism

The hypothesis was supported with the negative relationship between the metapersonal self and racism. Since individuals with a metapersonal self see themselves as connected to all others, there should be a negative correlation with racism. These findings support theoretical underpinnings of the self-construal construct (DeCicco & Stroink, 2000).

Self-Construal and Self-Ratings

Hypothesis 1 of the self-rating data was confirmed with a correlation between the metapersonal self-construal and the metapersonal self-rating scale. Previous research has confirmed that individuals with a specific self-construal (e.g., independent) rate themselves more likely to behave in ways that are consistent with that self-construal (Markus, 1977). Consistent with these findings, individuals with a metapersonal self-construal rate themselves more likely to behave in ways that reflect the metapersonal self.

Similarly, and consistent with the theory, hypotheses 2 and 3 were supported with a positive correlation between the independent self-construal and the independent self-rating. Also, there was a correlation between the interdependent self-construal and the interdependent self-rating. These findings suggest that people with a specific self-construal will rate themselves consistent for behavior that represents their self-reference.

Hypothesis 4 was supported in that there was a negative correlation between the independent self-construal and the interdependent self-rating scales. This finding implies that individuals with an independent self-construal do not rate themselves as having behaviors that are consistent with the interdependent self-construal.

The data supported hypothesis 5 with a negative correlation between the interdependent self and both the metapersonal and independent self-ratings. This implies that individuals with a self-construal that is connected to specific groups do not identify themselves with metapersonal (connected to all others) or independent behaviors.

Finally, hypothesis 6 stated that there would be a correlation between the metapersonal self-rating and both the metapersonal and independent self-construal scales. This hypothesis was supported which implies that people who rate themselves as having a metapersonal self-rating will have both the metapersonal and the independent self-construals. However, people who rate themselves as independent on the self-rating scale will only be high in independent self-construal. This was confirmed with the non-significant relationship between independent self-rating and the metapersoanal self-construal, and with a positive relationship between the independent self-rating and the independent self-construal. Further analyses with a regression predicting the metapersonal self-rating found that only the metapersonal self-scale significantly contributed to predicting the metapersonal self-rating. The independent self-scale does not add to the prediction of the metapersonal self-rating. These findings imply that though both scales were correlated with the metapersonal self-rating, only the metapersonal self-scale predicts metapersonal self-rating.

The results from Table 4 clearly show that the self-ratings for each of the three self-construal scales is consistent with the theoretical underpinning of each construct. The results are both empirically and theoretically consistent.

Study 4

Purpose

The purpose of Study 4 was to further test convergent and discriminant validity of the self-construal scales. Based on theoretical underpinnings (Enright, Gassin, & Wu, 1992) and previous preliminary research (DeCicco & Nesbitt, unpublished data; Nesbitt, 2005) forgiveness and religious beliefs, ritual, and practices were investigated in relation to self-construal.

Forgiveness

Historically, forgiveness has been intertwined with religious traditions (Enright et al., 1992). More recently, forgiveness has been studied as an interpersonal variable (McCullough, 2000). However, forgiveness is not simply forgetting about a wrong, condoning a wrong or pardoning a wrong (Enright et al., 1992). Rather, it is a complex process that moves one from negative affect, cognitions, and behavior to neutral or positive affect, cognitions, and behavior. Forgiveness should be related to the metapersonal self-construal because if someone holds an identity that includes all others, they will have a universal focus (Hill, 2006). The reason is that shifting

to the universal means shifting one's focus away from others and possible transgressions. In testing this theory, hypothesis 1 is that only the metapersonal self will be correlated with a measure of forgiveness.

Forgiveness will be measured in this study with a two-factor measure (McCullough & Hoyt, 2002). One factor is benevolence, which is the act of goodwill after a transgression. Examples of the items measuring benevolence are: Item 5) I want us to bury the hatchet and move forward with our relationship, and Item 17) I have released my anger so I could work on restoring our relationship to health. The second factor is revenge. Items measuring revenge are: Item 1) I'll make him/her pay, and Item 18) I want to see him/her hurt and miserable.

Religious Beliefs, Ritual and Practices

The metapersonal self must not be confused (but often is) with religious beliefs, practices, or religious importance. Religion or religiosity is defined as a set of behaviors, values, and attitudes that are based on previously established religious doctrine and institutionalized organization (DeCicco, 2007b; King, 2007). Spirituality on the other hand is defined as an unbounded set of personal drives, behaviors, experiences, values, and attitudes, which are based on a quest for existential understanding, meaning, purpose, and transcendence (King, 2007). Religiosity and spirituality are now treated as distinct constructs (Pappas, 2004) and the literature has produced a large number of measurement tools for each (e.g., MacDonald & Friedman, 2002; MacDonald, Kuentzel, & Friedman, 2002; Pappas & Friedman, 2004; Salsman, Brown, Brechting, & Carlson, 2005).

The metapersonal self-construal is a self reference that focuses on the universal and not on a deity or a religious doctrine. A relationship with a deity or a belief in a deity would describe that of the interdependent self. This self-construal focuses on the relationship with others (e.g., God) and with social roles (e.g., going to church).

The independent self-construal on the other hand is not theoretically related to religious beliefs since people who define the self as independent would be free to hold religious beliefs or not, depending on their own personal attitudes and interests. With this self-construal, information is not taken from outside the self (e.g., a deity), but rather the elements that comprise the independent self-construal include one's own internal abilities, thoughts, and feelings (e.g., I am strong, I am thoughtful) rather than external sources (e.g., my strength comes from God).

The independent self is expressed as a unique being that promotes one's own goals and focuses on one's abilities, attributes, and characteristics rather than on external sources (Singelis, 1994).

Therefore, hypothesis 2 tested in Study 4 was that only the interdependent self would be correlated with religious beliefs, importance, and practices since all of these concepts provide information about the self from social context. A similar notion has been examined in previous studies in terms of religious practices with a transcendent personality dimension (self-transcendence) (Cloninger et al., 1993).

Participants

Participants included 236 first year university undergraduates (30 males, 206 females) with a mean age of 20.29 (SD=4.9).

Measures

Self-Construal Scale (SCS): This 40-item scale consists of Singelis' (1994) 30-item independent and interdependent scale and the 10-item metapersonal self scale designed in Study 1. Participants responded on a 7-point Likert scale.

Forgiveness (McCullough & Hoyt, 2002): The forgiveness measure is a 20-item self-report measure. The scale consists of two factors, which measure revenge (negatively worded items, e.g., I'll make him or her pay) and benevolence (positively worded items, e.g., I have given up my hurt and resentment). The scale has been used extensively in the literature and has shown to be reliable and valid (e.g., McCullough, 2000; McCullough et al., 1998; Walker & Gorsuch, 2002).

Religious beliefs, importance and practices: Religious beliefs were assessed with a one-item demographic. Participants were asked the following question: Do you consider yourself to be religious? They responded by circling yes, not sure or no. A low score on religious beliefs represents responses that religion is important to them.

Religious importance and participation was assessed with the following questions: How important is religion to you? How often do you participate in organized religious practices? Participants were asked to respond on a 5-point Likert scale from 1 (Not at all important) to 5 (Extremely important). Higher scores indicate higher levels of importance and more participation in organized religious practices.

Procedure

University undergraduate students were asked to participate in the research project and were given bonus points as per their course outline. They were given one hour to complete the questionnaire package.

Results

The mean, standard deviation, and alpha coefficient for each scale used in Study 4 are reported in Table 6. The alpha coefficient was acceptably high for each scale in this study, ranging from .90 to .70.

Table 7 illustrates the correlations between each of the three self-construal scales and forgiveness, religious beliefs, religious importance, and religious practices. As stated in hypothesis 1, the metapersonal self-scale is positively correlated with forgiveness (both revenge and benevolence).

As stated in hypothesis 2, the interdependent scale is correlated with religious importance and religious practices. It is negatively correlated with religious beliefs, which indicates a higher level of religious beliefs (lower scores on religious beliefs indicate higher importance). Finally, as expected, the independent self is not correlated with forgiveness or the religious items.

Discussion

Hypothesis 1 was supported in that the metapersonal self was correlated with forgiveness and not correlated with any of the religious items. This implies that the metapersonal self is not related to religious beliefs, religious importance, or religious practices. It is however related to high forgiveness scores. These findings support the theory that people who are high in the metapersonal self-concept will be more forgiving since they include all others into their own sense of self.

Theoretically, the metapersonal self-concept should not be related to religious beliefs since traditional religion would involve a belief in a God or Being outside of the self (e.g., Christ). Therefore, all the religious scales should be correlated with the interdependent self, where a God or Being would be outside of the self.

The distinguishing feature of the metapersonal self is that it is correlated with forgiveness where the independent self is not. This is in keeping with the findings by Brown et al. (2005), who found the metapersonal self to be correlated with agreeableness but the independent self was not. These findings suggest that though the independent and metapersonal self-construals are related,

they have very strong differences as well (e.g., readiness to forgive or level of agreeableness).

General Discussion

A theoretical model of self-construal was presented in this paper: the metapersonal self-construal. This construct was developed from the current, well-established theory and research on self-construal. It has been shown both theoretically and empirically that self-construal is a culture-dependent construct and that two very different construals of the self exist: the independent and interdependent self-construals (Markus & Kitayama, 1991). The present research has expanded this theory and research to show that a third self-construal does in fact also exist. After five initial pilot studies, a series of four studies were then conducted in order to develop and validate the new model and measure.

The five pilot studies combined with Study 1 yielded a 10-item self-report measure of the metapersonal self-construal, which is a valid measure with high internal reliability. The scale is consistent with the current measures of independent and interdependent self-construal (Singelis, 1994). Factor-analysis of the self-construal items yielded a three-factor model indicating that three distinct constructs of self-construal were present. Study 2 found the metapersonal self (MPS) scale to have low social desirability. These findings suggest that the MPS scale is an appropriate and psychometrically sound measure of the third self-construal.

Study 3 investigated the discriminant validity of the metapersonal self scale and provides evidence in terms of intolerance of ambiguity, racism, and mood. A unique profile for each self-construal was found such that the independent self-construal was associated with low depression, low anxiety, high vigor, high independent self-rating, and low interdependent self-rating.

The interdependent self-construal was associated with high intolerance of ambiguity, high interdependent self-rating, and low independent self-rating. The metapersonal self-construal was associated with low intolerance of ambiguity, low racism, low anxiety, high vigor, low interdependent-self rating, and high metapersonal self-rating. These unique profiles are linked to the underlying principles of each self-construal construct.

Further investigations with Study 4 revealed the metapersonal self-construal to be associated with forgiveness, but not with religious beliefs, religious importance, or religious practices. As was expected, the indepen-

dent self was not correlated with forgiveness, religious beliefs, religious importance, or religious practices. These findings imply that the metapersonal and independent self-construal individuals differ with respect to their ability to move from negative affect, cognitions, and behaviors to neutral or positive ones, through forgiveness. We would expect the metapersonal individuals to be forgiving because their belief is that they are connected to all others. The independent self that is not connected to others would not necessarily be high in forgiveness.

The interdependent self-construal was correlated with religious beliefs, religious importance, and religious practices, which was expected. The interdependent individual would view God as outside of the self and therefore would participate in religious practices. This behavior would not be associated with the metapersonal self since if these individuals hold a notion of God, this God would be encompassed within them and not outside of the self. The findings of Study 4 were consistent with this theory. Future research is certainly warranted in this line of inquiry.

One limitation of this research is that only university undergraduates were tested. Since this is the first research to investigate the present theory, model, and construct, university students were an appropriate exploratory sample. However, the results cannot be generalized to adult populations until further testing is conducted. Given the findings of the current research, studies have been undertaken to begin the investigation with adult samples (see Stroink & DeCicco, 2002, 2003, 2008). Another limitation with a university student sample is that the self may change with life experience, and therefore age may be a factor. Given this, the importance of replicating these studies with adult samples must be emphasized. In fact, all the past findings with the independent and interdependent self-construals should be replicated with adult samples using all three measures of self-construal. Furthermore, since self-construal has been found to be culture-dependent (e.g., Ho, 2002; Kitayama, Markus, & Kurokawa, 2000; Markus & Kityama, 1991; Marsella et al., 1985) more extensive studies across cultures is needed. Studies based on the findings of this research have begun the process (Stroink & DeCicco, 2002, 2003, 2008), but comprehensive investigations remain to be undertaken.

Future research should provide clearer evidence of the relationship between the metapersonal self and specific cultural groups. Research by Stroink and DeCicco (2007), for example, investigated self-construal with aboriginal samples, which are theoretically relevant to the metapersonal self. Other cultural groups certainly need to be investigated. Also, studies that focus on cultural accommodation-hybridization of all three construals need to be conducted. It is reasonable to assume that individuals may be high in two or more of the construals. The means to measure this cultural accommodation-hybridization has yet to be explored.

Another necessary line of investigation is to expand the examination of the relationship between self-construal and cognition. Following the extensive research on the independent and interdependent self-construals and cognition (Markus & Kitayama, 1991), such research is now being extended to the third measure of self-construal: the metapersonal self (see Stroink & DeCicco, 2007).

The current research has begun the process of adding the third model and measure of self-construal to the psychological literature. Extensive research is now needed to expand the area of study by thoroughly including this model and measure into all past research designs on self-construal and to expand the research into many new areas not yet examined.

Endnotes

Appendix—The Metapersonal Self (MPS) Scale

INSTRUCTIONS

This is a questionnaire that measures a variety of feelings and behaviors in various situations. Listed below are a number of statements. Read each one as if it referred to you. Beside each statement write the number that best matches your agreement or disagreement, using the scale below. Please respond to every statement.

Strongly Disagree	Disagree	Somewhat Disagree	Don't Agree or Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

1. _____ My personal existence is very purposeful and meaningful.

2. _____ I believe that no matter where I am or what I'm doing, I am never separate from others.

3. _____ I feel a real sense of kinship with all living things.

4. _____ My sense of inner peace is one of the most important things to me.

5. _____ I take the time each day to be peaceful and quiet, to empty my mind of everyday thoughts.

6. _____ I believe that intuition comes from a higher part of myself and I never ignore it.

7. _____ I feel a sense of responsibility and belonging to the universe.

8. _____ My sense of identity is based on something that unites me with all other people.

9. _____ I am aware of a connection between myself and all living things.

10. _____ I see myself as being extended into everything else.

Tables

	1.	2.	3.	4.
1. The Independent Self	...	...	...	…
2. The Interdependent Self	-.064	...	...	...
3. The Metapersonal Self (a)	.567**	.120	...	…
4. The Metapersonal Self (b)	.551**	.212*	...	…
Mean	73.16	69.46	47.28	47.19
SD	11.60	10.25	8.20	9.08
"	.79	.75	.77	.80

Note: The Metapersonal Self (a) = 12 item scale; The Metapersonal Self (b)= 10 item scale

*p<0.05, **p<0.01

Table 1. Means, Standard Deviations, Alpha Reliabilities, and Intercorrelations for the Independent, Interdependent and Metapersonal Measures

(Item) Scale Item Number	Factor 1	Factor 2	Factor 3
(Meta) 24	.76*	-.12	
(Meta) 38	.74*		
(Meta) 13	.71*		
(Meta) 20	.69*		
(Meta) 41	.69*	.17	-.26
(Meta) 9	.38*	.29	.26
(Meta) 31	.36*		.34
(Indep) 1	.49*	-.40	.21
(Indep) 25	.40*	-.14	.12
(Indep) 2	.27		.26
(Inter) 16	.39*	.35*	.11
(Inter) 36		.72*	
(Inter) 5	-.13	.67*	.12
(Inter) 39	.14	.62*	
(Inter) 32	.13	.58*	-.14
(Inter) 42	-.20	.50*	-.35
(Inter) 15		.47*	-.13
(Inter) 4	-.27	.45*	
(Inter) 29		.45*	
(Inter) 11	-.10	.43*	
(Inter) 26		.37*	
(Inter) 8	.19	.35*	.26
(Inter) 23	.29	.34	-.36
(Inter) 22	.13	.32	-.35
(Meta) 17	.34	.37*	-.14
(Indep) 7	.11		.68*
(Indep) 12	-.13		.59*
(Indep) 33	-.28		.59*
(Indep) 37	.27		.58*
(Indep) 28		.10	.57*
(Indep) 18	.18	-.16	.51*
(Indep) 10	.34	.12	.47*
(Indep) 30	.14	.24	.32
(Indep) 35	.15		.28
(Indep) 40			.27
(Indep) 21			.23
(Inter) 19	-.19	.46*	.47*
(Meta) 34	.29		.37*
(Meta) 6		.26	.31

*Substantial loading (fixed at .35)

Table 2. Factor Loadings for the Three Self Scales

	Metapersonal Self	Independent Self	Interdependent Self
Independent Self	.49**	--	--
Interdependent Self	.03	-.23*	--
Intolerance of Ambiguity	-.26**	-.11	.26**
Modern Racism	-.32**	-.07	.11
Anger/Hostility	-.12	-.04	.02
Confusion/Bewilderment	-.15	-.21*	.10
Depression/Dejection	-.17	-.32**	.14
Fatigue/Inertia	.02	-.18	.10
Tension/Anxiety	-.26**	-.28*	.06
Vigor/Activity	.28**	.38**	-.17

Note: p< .05, ** p<.01

Table 3. Correlations for Self-Construal Scales With Intolerance of Ambiguity, Racism and Emotions

	1	2	3	4	5	6
1. Independent Self-Rating Measure		-.21*	.27*	.35**	-.28**	.15
2. Interdependent Self-Rating Measure			-.29**	-.33**	.21*	-.39**
3. The Metapersonal Self-Rating Measure				.40**	-.04	.72**
4. The Independent Self Scale					-.18	.42**
5. The Interdependent Self Scale						.03
6. The Metapersonal Self Scale						---

Note: * p < .05, ** p< .01

Table 4. Correlations for the Self-Construal Scales and The Self-Rating Scales

Variable	Beta	t	Sig.
Independent Self	.096	1.21	.23
Metapersonal Self	.672 *	8.52	.00

Table 5. Regression Analysis Predicting The Metapersonal Self Rating

Scale	$\underline{M}$	$\underline{SD}$	alpha
Metapersonal Self	81.39	4.47	.82
Independent Self-Construal	74.11	0.56	.78
Interdependent Self-Construal	73.41	9.56	.77
Forgiveness-Revenge	49.92	10.30	.90
Forgiveness-Benevolence	23.23	5.70	.73

Table 6. Means, Standard Deviations, and Alpha Reliability of the Measures

Measure	Independent Self	Interdependent Self	Metapersonal Self
Forgiveness-Revenge	.05	.08	.26
Forgiveness-Benevolence	.04	.02	.27*
Religious Beliefs	.00	-.25*	.00
Religious Importance	-.02	.19*	.04
Religious Practices	-.06	.21*	-.06

Table 7. Correlations Between the Self-Construal Scales and Forgiveness,Religious Beliefs, Importance and Practices

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Book Review

The Untethered Soul: The Journey Beyond Yourself
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The Untethered Soul should become known as a modern spiritual classic. Why? Because it so directly and skillfully involves the reader in a liberating process of self-inquiry. This is a modest book that attracts no undue attention to itself or to its author. The central character in the book is the reader who is revealed to be a person entranced by repeated cycles of life-dramas while caught up in each of the two constituent roles of dramatic theater – as protagonist and as antagonist. That is the existential dilemma from which the reader is invited to find release by going on a guided inward journey. At its culmination, the journey promises an arrival at (or a return to) a reliably established seat within the clarity of witness consciousness. Then true happiness becomes available along with liberation from the otherwise endlessly recurring cycles of life-dramas that most likely were among the motivations that brought the reader to the book in the first place.

The teaching or argument that is offered in *The Untethered Soul* is divided into five parts. They are: Awakening Consciousness, Experiencing Energy, Freeing Yourself, Going Beyond, and Living Life. The author, while respecting ancient teaching traditions from India and certainly well acquainted with them, explicitly draws upon them for only a few directly relevant figures and concepts. These can help the reader to recognize connections between the book's straightforwardly modern exposition and a large body of teachings that are available in many of the world's great philosophical and spiritual traditions. Ramana Maharshi (1879-1950), the great sage from south India, is evoked as an apt instance of a teacher who was known for his penetratingly direct method of instruction. The Buddha and Plato, widely known teaching exemplars, are also mentioned. Yoga is cited in its root sense as a method for transpersonal and transformative inquiry. A variety of terms for subtle presence or sacred energy (e.g., Chi, Shakti, and Spirit) appear a few times, particularly in the section of the book on Experiencing Energy. Because the book addresses a universal and perennial human dilemma, it rightly includes a few well-selected references to traditional sources that have acknowledged and addressed them. However, the book is not written to serve any particular philosophical school or religious denomination. It is neither esoteric nor obscure in its language. It has a ringing clarity that will make it accessible to anyone who opens it. In short, the book's teaching is generic in the best sense.

Awakening Consciousness, the first section of the book, begins by inviting the reader to notice the non-stop mental dialogue that is always in process and seems to be located somewhere inside the head. The late social theorist Ernest Becker who studied self-esteem maintenance used a cinematic term for this phenomenon by calling it "the inner newsreel." He found that it creates a more or less consistent self-image to which one becomes attached and that one will tend to protect and preserve at all costs. The active part of the mental dialogue seems to come from an inner voice that narrates the world and at the same time sustains the self-image. In *The Untethered Soul*, it serves as the starting point for an inquiry into the costs of this familiar form of self-maintenance and into the possibility of release from its daunting consequences while remaining realistic about the impossibility of putting an outright stop to it.

A key factor in awakening is to acknowledge that the model of reality that is generated by the inner voice is a much reduced and impoverished one. Although it can function somewhat effectively in the short run as a protective strategy for generating a self-image and maintaining self-esteem, if one would step back and take a look, then it soon would become clear that the model cuts the world down to a size so small that very little reality can get admitted, experienced, contemplated, or enjoyed. When this is acknowledged and then followed by an active will to disengage from attachment to the

contents of the inner dialogue, then spiritual or transpersonal growth can begin: "There is nothing more important to true growth than realizing that you are not the voice of the mind – you are the one who hears it" (Singer, 2007, p. 10).

The ancient distinction between the field and the knower of the field, or between the inner voice and the one who can observe it, is crucial. It provides a focus for the practice of self-remembering and is the first step in a process of self-observation. Sustained awareness of the distinction, the practice of noticing the voice without becoming lost in the narrative that it contrives, is an occasion for transcendence: "Come to know the one who watches the voice, and you will come to know one of the great mysteries of creation" (Singer, 2007, p. 13).

When clearly seen, the chronic afflictions of the human being in society – the dependence on external circumstances, reliance on the opinions of others, and repeated reruns of the inner newsreel – can become the source for the cure by means of awakening witness consciousness. Given time enough, no doubt the individual psyche that is conjured up by unceasing mental chatter and model-building, and which is dubbed "the inner roommate" by the author, inevitably would welcome relief from its chronic recycling of esteem-management materials and would spontaneously open itself to a profound shift in perspective and a change in consciousness. However, intentional observation is an effective intervention that needs only a limited awareness of the repetitive cycles, but does not depend upon an indefinitely long period of maturation of the psyche:

> Until you've watched your [inner] roommate long enough to truly understand the predicament you're in, you really have no basis for practices that help you deal with the mind. Once you've made the decision to free yourself from the mental melodrama, you are ready for teachings and techniques. (Singer, 2007, pp. 21-22)

Self-inquiry, when guided by skilled teachers and skillful methods, can sharpen the distinction between object and subject and can point toward the transcending mystery that is the consciously witnessing subject. Thoughts, emotions, and physical forms have been categorized by many ancient and classical texts as part of the realm of objects, and have been considered to be plural as part of "the many." The conscious subject, as separate and independent from the realm of objects, has in some texts been considered to be plural (at least

provisionally), or multi-leveled and converging to singular at higher levels of selfhood, or simply singular; that is, it has been variously understood to be one among multiple enduring selves or else ultimately as one alone. Traditionally India's influential philosophies– Dvaita, Vishistadvaita or Bhedabheda, and Advaita– have supported and preserved these alternative forms of categorization, and authoritative texts across many traditions not only take distinctions of this kind for granted, but also rely upon them and make them explicit. One well-known instance, in the second chapter of the *Bhagavad Gita*, celebrates the true and unassailable self as that which weapons cannot cut, fire cannot burn, water cannot wet, and wind cannot dry. *The Untethered Soul* invites the reader into direct experience of the essential self by proposing simple experiments in awareness and by taking "consciousness" for its apex term: "Consciousness is the highest word you will ever utter. There is nothing higher or deeper than consciousness. Consciousness is pure awareness" (Singer, 2007, p. 28). Then, reflecting something like the fundamental distinction between the conscious self (purusha) and the realm of objects (prakriti) that had its earliest expression in ancient Samkhya philosophy, the author prepares the reader for self-recognition as pure consciousness:

> You live in the seat of consciousness. A true spiritual being lives there, without effort and without intent. . . . You go so deep that you realize that's where you've always been. At each stage of your life you have seen different thoughts, emotions, and objects pass before you. But you have always been the conscious receiver of all that was. (p. 29)

The Untethered Soul welcomes the reader to an inner journey that starts and ends with a quiet and confident awareness of being centered in a state of witness consciousness. This state can be discovered or recovered despite the centrifugal pull exerted by the synchronization of the five physical senses with emotions and thoughts. Together they de-center one's awareness, leading one to live as eccentric, neurotic, and lost: "When the consciousness gets sucked in, it no longer knows itself as itself. It knows itself as the objects it is experiencing. In other words, you perceive yourself as these objects. You think you are the sum of your learned experiences." Yet the difference between an eccentric and a centered position will be evident: "When you are a centered being . . . your consciousness is always aware of being conscious. Your awareness of being is independent

of the inner and outer objects you happen to be aware of" (Singer, 2007, pp. 35-36). The British mystic Douglas E. Harding (1909-2007) described this double awareness – awareness of some object or objects of consciousness and awareness of conscious-being which is being conscious – as "two-way looking" (i.e., what you are looking at and what you are looking from). According to Harding, the world can become a problem only when one "overlooks the looker." In *The Untethered Soul* we find the same perennial insight about self-remembering and self-forgetfulness:

> As you pull back into the consciousness, this world ceases to be a problem. It's just something you're watching. It keeps changing, but there is no sense of that being a problem." (p. 37)

True meditation, according to the author, is to contemplate the source of consciousness. Meditation dissolves rather than solves problems, or at any rate it reveals them to be somewhere beside the point.

Experiencing Energy is the second part of the book and a second component of the inner journey. The author clarifies the concept by stating that "The energy we are discussing does not come from the calories your body burns from food. There is a source of energy you can draw upon from inside" (Singer, 2007, p. 42). The inner source of energy is potentially limitless. Nevertheless, it does not seem to be immediately available when contact with the seat of witness consciousness is temporarily lost due to the attractive pull of other-directedness or contraction into fear. A method for opening and remaining open, therefore, is an essential component of a spiritual path and inner journey: "Through meditation, through awareness and willful efforts, you can learn to keep your centers open. You do this by just relaxing and releasing" (p. 47).

In *The Untethered Soul,* two terms from traditional India are used to describe the dynamics of blocked energy. They are chakras (energy centers) and samskaras (traces from past impressions that have not been cleared from heart and mind). Perhaps modern concepts could have served a similar end (e.g., reaction patterns [widely employed in diverse contexts], defense mechanisms [deployed throughout psychoanalytic traditions], or automatization [as analyzed by Arthur J. Deikman]). Again, if we recall that the book is describing behavior patterns in relation to the "spiritual heart" rather than the physical one, then the cardiovascular system in the physical body might provide a somewhat helpful simile.

Like plaque, a semi-hardened accumulation of substances that circulate with fluids but can dangerously impede blood flow and can build up enough to cause blockage and breakdown, accumulated samskaras circulate in the more subtle level of the psyche where they may be latent for long periods, silent and unnoticed. Then some sensory experience or memory event may activate them so that either "positive" (i.e., attraction and clinging) or "negative" (i.e., fear and avoidance) reactions can be observed:

> Clinging creates positive Samskaras, and when these are stimulated, they release positive energy. Hence two kinds of experiences can occur that block the heart. You are either trying to push energies away because they bother you, or you are trying to keep energies close because you like them. In both cases, you are not letting them pass, and you are wasting precious energy by blocking the flow through resisting and clinging. (Singer, 2007, p. 56)

Although protection of the image-ego or self-concept may seem to be less vitally important than protection from direct threats to physical survival, an incredible amount of time, energy, and investments of all sorts are tied up in the self-esteem issues of modern people. Disturbances to self-concept equilibrium, as the author rightly notes, are tolerated so little by most people that their lives come to be based on patterns of revisiting or avoiding other people, particular places, and objects of awareness. Consider, for instance, how many topics might never be allowed to come up in a conversation because of their disturbing effects. The hidden costs incurred by everyday normally neurotic humans to maintain these defenses are high: "Life becomes stagnant when people protect their stored issues" (Singer, 2007, p. 61). Conversely, the reward to release and transcend them is even higher: "The reward for not protecting your psyche is liberation" (p. 62). It might seem paradoxical that the inner work that is required is to let go, relax, relinquish, release. Nevertheless, this is real work that is consistent with what the late Alan Watts identified as "the law of reverse effort." Where does one go to do this work? "There's a place deep inside of you where the consciousness touches the energy, and the energy touches the consciousness. That's where your work is. From that place, you let go" (Singer, 2007, p. 67).

The third part of the book, Freeing Yourself, makes clear that the journey that involves inner work does not get easier if it is postponed to some later or

more convenient time. Whenever it begins, however, it requires facing and then releasing one's overt aversion to fear and one's covert attachment to it as a powerful life-shaping factor. "We define the entire scope of our outer experience based upon our inner problems. If you want to grow spiritually, you have to change that" (Singer, 2007, p. 72). When an opportunity to let go appears, one is wise to take it. To postpone will allow the disturbance to attract and to hold one's awareness, will require the diversion of energy in order to block or manage it, and will keep one at risk, de-centered, and in a "fallen" state. "This is the beginning and end of the entire path – you surrender yourself to the process of emptying yourself. When you work with this, you start to learn the subtler laws of the process of letting go" (p. 74). Details of this process, and the practices recommended in the book, cannot be adequately summarized here, but they reward the reader's close attention and prompt action. While skillful means are needed, a hint of grace supports successful practice. The conjunction of consciousness and energy is a key: "When you are no longer absorbed in your melodrama but, instead, sit comfortably deep inside the seat of awareness, you will start to feel this flow of energy coming up from deep within. This flow has been called Shakti. This flow has been called Spirit" (p. 87). The flow facilitates the inner work, perhaps makes it possible to get on with it at all: "This is the core of spiritual work. When you are comfortable with pain passing through you, you will be free" (p. 106).

In part four, Going Beyond, the likelihood of one's potential resistance to release and transformation is acknowledged and addressed. The author begins with an allegory that is a modern equivalent of Plato's Allegory of the Cave in Book 7 of *The Republic*. It vividly expresses the contrast between living within the confines of the bounded and limiting (no matter how much or how little distorted) conceptual world and the "untethered state" of liberation. The author appreciates that the tendency to cling to the constructed conceptual world and to the individual psyche that mirrors it is understandable as a reaction to fear and as an aspiration toward some small zone of safety and comfort – even if these are apparent rather than real. There are evident affinities in this part of the book with Buddhist teachings about the generation of the phenomenal self and conventional world through the stages of dependent origination (pratitya-samutpada). Desire, craving, and clinging are deep impulses, and the author observes: "Your sense of self is determined by where you are focusing your consciousness" (Singer,

2007, p. 128). He also notes that "Clinging creates the bricks and mortar with which we build a conceptual self." (p. 129)

The close analysis in this part of the book is balanced by a number of questions, exercises, and thought experiments that offer the reader encouragement to continue the process of inquiry and the movement toward change while being honest about any resistance. It also affords the author repeated occasions to offer assurance and to affirm the challenging nature of the inner journey:

> The journey is one of passing through exactly where you have been struggling not to go. As you pass through that state of turmoil, the consciousness itself is your only repose. (Singer, 2007, p. 132)

And similarly: "There is no way out through building this model of yours. The only way to inner freedom is through the one who watches: the Self" (p. 135).

The key features of the practice are restated repeatedly in this part of the book, too. Why? Because these instructions are so easily forgotten by anyone who is anxious or afraid – despite their brevity and clarity:

> You have to let go and pass through the cleansing process that frees you from your psyche. You do this by simply watching the psyche be the psyche. The way out is through awareness. Stop defining the disturbed mind as a negative experience; just see if you can relax behind it. When your mind is disturbed, don't ask, 'What do I do about this?' Instead ask, 'Who am I that notices this?' (Singer, 2007, p. 135)

Once again: "Your only way out is the witness. Just keep letting go by being aware that you are aware" (p. 136).

When one arrives at the fifth and last part of the book, Living Life, it is like seeing a selection of desserts presented after a fine meal. The reader can save the five essays that comprise this section of the book for last, of course. Alternatively, one or more of them could be read first or even intermittently while working with the first four parts of the book. The topics of these essays are unconditional happiness, nonresistance, contemplating death, the Taoist middle way, and God's love. Each of them creatively expresses the kind of life and the sort of attitude that is taught in a more systematic fashion throughout the first four parts of the book. Together they lightly underline the lesson that "Spiritual practices are not an end in themselves" (Singer, 2007, p. 145).

Each of these essays is pervaded by joy, a love of life, a sense of balance, and respect for death as a friend and teacher. They are like welcome correspondence from a wise spiritual friend who has a profound sense of humor, and are not to be missed.

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Book Review

The Fall: Evidence for a Golden Age, 6,000 Years of Insanity and the Dawning of a New Era
by Steve Taylor

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Even though the vast majority of human beings continue to espouse the ideal of "progress," cherish the fruits of technology, and have a modern mentality, many thinkers assert we have entered a period called "post-modernity" in which disenchantment with the ideals of modernity has become widespread. Paradoxically, most such thinkers scorn the view of human spiritual, social, and cultural evolution in history as a progressive Fall from the perfect condition pictured as the Garden of Eden in Judeo-Christian-Muslim tradition, or from the Golden Age, Era of Perfection (*krityayuga*), or Age of Truth (*satyayuga*) in the ancient Eurasian traditions that comprehended the Dionysian mysteries in Greece (and, later on, Heraclitean and Stoic philosophy[1]), Zurvanism in Persia, the cult of Osiris in Egypt, the Shaiva tradition in India, the Bönpo tradition in the Himalayas, and, though it did not name a succession of ages, the Taoist tradition in China (Capriles, work in progress 2).

The tradition in question depicts the original age of perfection as characterized by the spontaneity of the *lógos*, *tao*, or however its respective variety called the single principle of reality, rather than being ruled by conventions; by timelessness (in Zurvanist terms, by Zurvan; in Shaiva terms, by Mahakala, the *total time* aspect of Shiva; in terms of a Tantric tradition transmitted in Tibet [Padmasambhava, 1997, Tarthang Tulku, 1977],[2] by "Total Space-Time-Awareness"); and by the lack of the belief in and the cult of god(s), of political power, and of social divisions, property (private or joint), and gender inequalities. It asserts that humans of that time did not handle the ecosphere as a commodity, did not restrict sexuality (to a single partner or in any other way), and did not exert repressive control on children. In its view, after the last age of the aeon—the age of utmost degeneration called Iron Age or Dark Era (*kaliyuga*), in the final period of which we presently find ourselves—a condition analogous to the primordial age will manifest.

However, the few authors who, *outside* the Tibetan Tantric and Dzogchen traditions, have disseminated the degenerative view of evolution and history, most often reject the thesis that a condition without gods, political and social divisions, and so on will soon be restored, and that helping restore it is the essential task of human beings of our time, on which survival depends. On the contrary, most such authors call for the restoration of a Middle Age-like theocratic, repressive socio-political system, condemn those who reject the creationist hypothesis, and espouse ideals proper of the extreme right. This is the case with the Traditionalist Movement, founded by René Guénon (who espoused Islam) and joined by many authors, including Frithjof Schuon (who wrote an apology of imperialism in which he called for the restoration of a Caliphate-like theocracy [Schuon, 1984]), Martin Lings ("Abu-Bakr Siraj-ud-din") and Jean Biès (who claimed that in the Age of Perfection the Brahmin caste prevailed [Biès, 1985], rather than acknowledging it to be free of social divisions and political power)—as well as the infamous Julius Evola (who, toward the end of World War II, visited runaway Mussolini at the Führer's headquarters, and whose only objection to Nazi ideology was that in his view the cultivation of the "spiritual race" should *take precedence* over the selection of the "somatic race" determined by the laws of genetics, with which the Nazis were obsessed).[3]

The Fall (Taylor, 2005), some of the arguments of which the author advanced previously in this journal (Taylor, 2003), espouses the degenerative view of human spiritual, social, and cultural evolution and history, while avoiding the above distortions. It depicts the Age of Perfection just as originally conceived by tradition; shows that an spontaneously arisen, evolutionarily determined process leading to its restoration is currently in course, and stresses the fact that the practice of the Paths of Awakening is the condition of possibility and

catalyst of this process,[4] which it views as a therapeutic response to ecological crisis (which in my view [Capriles, 1992, 1994, work in progress 2] brought to completion the *reductio ad absurdum* of the error or delusion that the Buddha called *avidya* [Tib., *ma rig pa*], which developed throughout the time cycle) and as the only chance of survival of our species.[5]

Taylor provides us with the most overwhelming evidence of the existence of an Age of Perfection at the onset of human evolution, and of the fact that human spiritual, social, and cultural evolution and history have been a process of degeneration. He reviews the conclusive evidence provided by paleo-pathology to the fact that (with the exception of a cluster of sites around the Nile valley since 12,000 BCE) violence between human beings—including war and violent crime—was unknown before 4,000 BCE: no corpses have been found bearing the marks of having been killed or wounded by other human beings, and, contrariwise, many who suffered accidents were cared for and healed by their fellow human beings.[6] He also reviews scores of archeological, anthropological, ethnographic, and other evidence suggesting that linear time, belief in and cult of god(s), political power, social divisions, property (joint or private), gender inequalities, the instrumental handling of the ecosphere and the disruptive use of technology,[7] monogamy and sexual repression, shame of,disgust, and hostility toward the body and its natural functions, and the repressive control of children by adults, were nonexistent until relatively recent times. Likewise, he makes it clear that repression of the natural impulses of the organism is concomitant with the oppression and exploitation of other human beings and with the attempt to control, exploit, and use nature as a commodity.[8] Furthermore, he shows that primordial religion involved awareness of the spiritual force that animates all entities—and that ecological devastation arose after the loss of the capacity to be aware of that animating spiritual force (in fact, primordial spirituality consisted in *Communion in the patency of the single, true condition of everything*, and human disharmony and ecological devastation resulted from the loss of the capacity for Communion [Capriles, 1992, 2000c, work in progress 2]). His survey of global history, migrations, and influences of some human groups on others shows an impressive erudition, and may be informative even for accomplished historians.

I disagree, however, with a few of the points Taylor makes in *The Fall*. To begin with, whereas Taylor presents the Fall as something that suddenly happened around 4,000 BCE in a particular region of the planet, the wisdom traditions sharing the view of human evolution and history as a process of degeneration make it clear that the Fall is a gradual progression that began in the Age of Perfection, *due to a dynamics inherent in the human psyche*—implicitly viewing it as a macro manifestation of the myth expressed in India by the term *lila* (the hide-and-seek game of universal nondual awareness with itself, whereby it conceals itself as individual consciousness, and then upon Awakening rediscovers itself as cosmic nondual awareness—so to say, since *from its own standpoint* it never loses itself), which Heraclitus exemplified by representing the time cycle (*aion*) as a child playing chess (Fr. B 52 DK). Though Taylor explicitly admits teleology, in his work we find traces of James DeMeo's (1998) untenable ecological-geographical determinism, according to which the Fall was unleashed by the desertification of the Sahara and vast regions of Asia; though desertification *might have been* a *contributory condition* to the *exacerbation* of Fallen characteristics, the Fall is inherent to the structure and function of the human psyche (e.g., I have explained it primarily in terms of the relationship between the cerebral hemispheres, and secondarily in terms of a concept of phenomenological double negation related to Sartre's bad faith [1980] and Laing's elusion by means of a "spiral of pretenses" [Laing, 1961]). It may as well been the falling psyche of the human groups inhabiting the regions in question that unleashed—or at least collaborated with—the process of desertification: it is widely admitted that, through their short-sighted handling of their environment, the Sumerians turned it into a desert. (I have related the development of the radically different mentalities of the peoples DeMeo calls Saharasians and of the peoples they conquered, to the myth of Cain and Abel, which in my view, because of a Jungian shadow mechanics, inverts their respective occupations [Capriles, 2000c, work in progress 2].)

Besides, Taylor equates "primal peoples" of our time with humans of the Primordial Age (though often having been corrupted by their contacts with civilization), whereas the traditions I am referring to, assert that all peoples have been Falling since the primordial age, though in different ways and at different paces: for example, the religions of many primal peoples of our time are shamanic, whereas the religionless religion of the Primordial Age, from which the *pre-Indo-European Paths of Awakening* of India, the Himalayas and most of Eurasia descend, was of the type I call metashamanic

(Capriles, 1990, 1994, 2000a, work in progress 2).[9] These pre-Indo-European Paths viewed and used the body and its energies—*including* the erotic impulse—as the royal road to Awakening. Taylor overlooks the pre-existence of these Eurasian Paths and asserts the possibility of Awakening to have arisen around 800 BCE with the *Upanishads*—which are hybrids of the Paths in question with Indo-European antisomatism (Capriles, 2000b, 2000c, work in progress 2). Likewise, he contrasts the methods of the Greek mysteric traditions with those of the Asian Paths of Awakening, missing the fact that the Dionysian and Shaiva traditions were one and the same (Daniélou, 1992)—and were one and the same as the Bönpo, Taoist, and Zurvanist traditions, among others (Capriles, work in progress 2, as well as 2000b, 2000c, electronic publication 2003): these are what I am referring to as *pre-Indo-European Eurasian Paths of Awakening*. He views women as less "Fallen" than men, whereas men and women are equally Fallen, though in different ways (women, who are not any less manipulative than men, mediate to men, in their early years of life, the "patrist" characteristics of society). When Taylor explains sexual bioenergetics, he does so in terms of Wilhelm Reich's views, rather than in those of Tantric and Dzogchen bioenergetics, and when he explains the loss of freshness and intensity of human experience, he uses the concept of "redistribution of energy," failing to note that it results from the reduction of the bioenergetic volume (Skt., *kundalini*; Tib., *thig le*) that reduces space-time-knowledge (Capriles, 1977, 1986, 1994, 2000a, electronic publication 2003, work in progress 1). I may have a few other minor disagreements with Taylor, but there is not space to mention them here.

However, Taylor's *The Fall* opens a treasure chest of precious information of which I was hitherto unaware, which may be invaluable in a therapeutic metanarrative of human history and evolution helping us, at the present crossroads of evolution, to choose the path toward survival and restoration of primordial harmony, instead of the one to hell and self-annihilation. *The Fall* is one of the most notable works of the first years of our century, and I am convinced it will be one of the most important books of *the whole century*.

Endnotes

1. Hesiod reformed ancient tradition by introducing, between the Bronze and Iron Ages, an "Age of Heroes." Heraclitus repeatedly referred to the *aion*, but extant fragments do not refer to eras. Plato (*Politician* 268d-273c) reinvented the tradition even more radically, though Châtelet (1965,pp.225-239) inferred a degenerative philosophy by combining these fragments with *Republic*, Book VIII. Thus *in this regard* the Stoic view (which as the Stoics acknowledge, they took from Heraclitus) is most faithful to tradition.

2. Padmasambhava (1997) explains the time cycle or aeon (Skt., *kalpa*; Tib., *bdkal-pa* or *kal pa*; Greek, *aion*) as a progressive development from timelessness to time, which then passes ever more rapidly, until its pace becomes so fast that it disintegrates—upon which timelessness is restored. Tarthang Tulku (1977) expounds the Tantric view of delusion as a co-relation of time, space and knowledge, and of Awakening as Total Space-Time-Awareness (in Tarthang Tulku's language, "great time-space-knowledge").

3. Génon, Evola, and the great theorist of Asian art and aesthetics Ananda Coomaraswamy, are first-generation members of the movement in question (when Evola was hit by a bomb in an air raid, René Guénon wrote to him suggesting that his misfortune may have been induced by a curse or magical spell cast by some powerful enemy [Evola, Julius, Guido Stucco, Trans., 1994]). Lings was Guénon's successor; he and Schuon are the most renowned second-generation members of the movement. Biès, Ellemire Zola and Grazia Marchianò *seem to be* minor second generation members of the movement.

4. In this regard, Taylor agreed with the self-evident view expressed in Capriles (1992, 1994, work in progress 2), which he had not read at the time or writing his work.

5. In my view, the completion of this *reductio ad absurdum*, simultaneously calls for and makes possible the eradication of delusion that had been developing throughout our time cycle, together with all that developed interdependently with it.

6. Beside the evidence Taylor provided, the reader may consult Lochouarn, Martine, 1993.

7. Beside the evidence Taylor provided, it is worth noting that, as shown in Descola (1996), regions of the Amazon inhabited for longer time exhibit greater biodiversity—whereas, Dale & Carter (1955) showed, most civilizations have destroyed themselves through a bad usage of their environment. However, as Taylor showed (p. 240), evidence suggests that in

some cases prehistoric peoples gave rise to ecological catastrophes.

8. In Capriles (1994, 2000b, work in progress 2), I relate all of this with the arising of psychological vertical relationships upon the theogenesis (in its turn due to a loss of the capacity for communion), and subsequent developments based on these relationships.

9. Shamanic cultures had a pan-communicative vision tending to preserve ecological order. However, shamanism resulted from the Fall. Michael Harner (1973) noted that the South American shamans believe the reality to which shamanic means grant access—which, as noted in Capriles (1990, 1994, 2000a, work in progress 2) is as conditioned and delusory as everyday reality—to be the true reality, and everyday vision to be illusory. Thereby such cultures, rather than attaining freedom, become dependent on the whim of the entities manifesting in shamanic experience. On the contrary, what I call metashamanism, proper of the primordial age and of genuine wisdom traditions, aims at realizing *all* conditioned visions to be delusive and thereby attaining freedom from the influence of all sorts of (illusory) entities.

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