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Measuring the psychological construct of control. Discriminant, divergent, and incremental validity of the Shapiro Control Inventory and Rotter's and Wallstons' Locus of Control Scales.

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MEASURING THE PSYCHOLOGICAL CONSTRUCT  
OF CONTROL: APPLICATIONS TO  
TRANSPERSONAL PSYCHOLOGY

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*A disturbed mind is forever active, jumping hither and thither, and is hard to control; but a tranquil mind is peaceful; therefore, it is wise to keep the mind under control. -Buddha*

*The Master sees things as they are  
without trying to control them,  
She lets them go their own way  
and resides at the center of the circle. -Lao-Tzu, Tao-te-Ching*

*The most excellent Jihad (Holy War) is the conquest of the self. -Mohammed*

*Strengthen your will power so that you will not be controlled by circumstances  
but will control them.  
O Divine Sculptor, chisel Thou my life according to Thy design.  
-Paramahansa Yogananda*

*But, as often as the heart  
Breaks-wild and wavering-from control, so oft  
Let him re-curb it, let him reign it back  
To the soul's governance for perfect bliss  
Grows only in the bosom tranquilized. -Bhagavad Gita*

*He who is slow to anger is better than the strong man and a master of his passions is better  
than the conqueror of a city. -Rabbi Tarfon (from the Pirke Avot)*

*No drives, no compulsions, no needs, no attractions: Then your affairs are under control.  
You are a free person. -Chuang Tzu*

The above quotes represent two common, yet seemingly paradoxical themes found in many of the world's great spiritual traditions: 1) the importance of gaining greater personal mastery and control over oneself and one's experience, and 2) the need to let go, relinquish active control, and surrender oneself to the Universe, God, the spiritual Master. It is our belief that such themes as will, letting go and letting God, surrender, and mastery, all center around a construct which has received a great deal of attention in Western, scientific psychology: *control*. As it is used throughout this paper, we define "control" as the "ability to cause an influence in the intended direction" (Rodin, 1986; Rothbaum & Weisz, 1989). Control has primarily been used in Western psychology to denote an assertive change mode. However, we believe the construct of control can also be applied to the skills of letting go and accepting (whether to the natural way or to God).

We applaud the excellent and timely review of psychometric measures and their potential relevance for transpersonal psychological research which appeared in a recent *JTP* issue (MacDonald et al., 1995). However, based on years of extensive research on the psychological construct of *control* (cf. Shapiro, Schwartz & Astin, 1996), it is our conclusion that how individuals relate to, desire, and exercise control in their lives would be an important addition to this summary of transpersonal constructs. The purpose of this article is to briefly introduce the topic of control as discussed in Western psychological theory and research, introduce readers to the Shapiro Control Inventory (SCI), a multidimensional measure of this construct, and highlight the ways in which control may be relevant to transpersonal psychology.

#### THE CONSTRUCT OF CONTROL: HISTORICAL BACKGROUND

It was only in the late 1950s and early 1960s that psychology began to seriously re-examine issues of personal control. Prior to that time, in an effort to break away from its philosophical roots, psychology relegated concepts such as self-control, will, and voluntary control of "consciousness" to the graveyard of epiphenomena (e.g., Skinner, 1953, 1971). The elimination of these terms, with their introspective (and sometimes teleological) philosophical assumptions, was seen as critical for psychology's scientific development. Resurgence of interest came from multiple sources (cf. Klausner, 1965), including neo-analytic views of competence and dyscontrol (White, 1959; Menninger, Mayman & Pruyser, 1963), early social learning theory (Rotter, 1966), and behaviorists' excursions into the "lions den" of self-control and cognitive processes (e.g., Thoresen & Mahoney, 1974; Meichenbaum, 1977).

In addition, reports appeared from Asia detailing extraordinary achievements of behavioral and cognitive control by Zen meditators and yogi masters (e.g., Kasamatsu & Hirai, 1966; Anand, Chinna & Singh, 1961). With the development of increased technological sophistication (e.g., Green, Green & Walters, 1970), Western scientists began examining the possibility of increased human control over what heretofore had been considered autonomic aspects of human functioning (e.g., Kamiya et al., 1971; Pelletier & Peper, 1977).

During the past three decades, psychologists have made significant contributions to our understanding of how individuals gain and maintain a sense of control in their

lives (for overviews see Skinner, 1996; Shapiro et al., 1996; Shapiro & Astin, in press). Several control-related constructs have been developed and explored, and investigations have refined non-pharmacological self-regulation strategies to provide individuals increased control over their affect, behavior, and cognitions. Hundreds of studies and dozens of books have been devoted to the theory, research, and applications of a variety of personal control strategies to numerous health care and psychotherapeutic concerns. This body of work has demonstrated that our ability to gain and maintain a sense of control is essential for our evolutionary survival (Averill, 1973; White, 1959), a central element in psychotherapy and mental health (cf. Frank, 1982; Bandura, 1989; Seligman, 1991), and important for our physical health (cf. Syme, 1989; Rodin, 1986). Further, the benefits of having control on health and mood have been demonstrated across the human life-span, from childhood (cf. Rothbaum & Weisz, 1989) through middle adulthood (cf. Averill, 1973) and among the elderly (cf. Rodin, 1986; Shapiro, Sandman, Grossman & Grossman, 1995a).

#### MEASURING CONTROL

The belief that one has control can often be as important as actually having control (cf. Taylor & Brown, 1988). Therefore, it is critical to investigate a person's self-perceptions regarding control. Over the past three decades, the measurement of perceived human control has moved from: 1) general domain to specific domains; 2) from human control as a unitary construct to human control as a multifaceted molar construct (Rotter, 1966; Wallston, Wallston, Smith & Dobbins, 1978; Shapiro, 1994). The first generation measurement of control was Rotter's Internal-External Locus of Control Scale. Questions assessed in a forced choice manner whether individuals believed that an area was under their internal control or whether control came from external circumstances. For example, a person would need to choose between the following statements:

- a) The idea that teachers are unfair to students is nonsense.
- b) Most students don't realize the extent to which their grades are influenced by accidental happenings.

Choosing "a" would be a point for internal locus of control. The test provided one with a general domain, unidimensional score reflecting whether a person had a more internal or external control orientation

A second generation test was developed in the 1970s by the Wallstons (Wallston et al., 1978). In contrast to Rotter's, their test was domain specific-related to health. Further, based on research of Levenson and others (1974), their test did not make internal/external an either/or proposition but allowed for scores reflecting three different agents or sources of control: internal, external powerful other, and external chance:

- internal locus of control- "If I take care of myself, I can avoid illness."
- external powerful other control- "Having regular contact with my physician is the best way for me to avoid illness."
- chance- "Most things that affect my health happen to me by accident."

The locus of control inventories developed by Rotter and Wellston have made significant contributions to our understanding of control. However there are three major limitations to these scales: 1) neither instrument measures a person's "sense of control" in both overall (general domain) *and* across multiple domains; 2) neither scale assesses "desire for control" (whether over oneself or the external environment) which has been shown to be an important component of control, distinct from locus of control (cf. Burger & Cooper, 1979); and 3) consistent with most Western psychological research and theory, these inventories conceptualize control primarily as active and instrumental and fail to distinguish between negative yielding (too little control) and positive yielding (accepting) "modes of control." Psychological theory, research, and practice is beginning to recognize the importance of an accepting mode of control as a complimentary balance to active change strategies (cf. Linehan, 1993; Weisz, Rothbaum & Blackburn, 1984).

#### THE SHAPIRO CONTROL INVENTORY (SCI)

Over the past two decades, we have developed and tested the SCI, a third-generation control inventory that attempts to address the above limitations. The SCI is a paper-and-pencil self-assessment inventory consisting of 187 items and involving nine scales. Its intent is to serve as a reliable and valid control inventory for clinicians and researchers to utilize in both clinical and health care settings. Despite its conceptual complexity, the SCI has a simple format which facilitates self-administration (taking approximately 20 minutes to complete) by the client or research subject. Further, it is available on scannable forms which can be computer scored, providing the health care professional or researcher a printout showing a patient's control profile.

Several approaches to reliability and validity were used in developing the SCI, and these studies are detailed in a IOO-page manual for the inventory (Shapiro, 1994). For the nine SCI scales, alpha reliability coefficients range from .70 to .89 and test-retest reliability from .67 to .93.

The development of the SCI involved several thousand individuals ranging in age from 13 to 91 throughout all regions of the U.S. Comparisons have been undertaken with both standard psychiatric tests such as the MMPI and control tests such as Rotter's and Wallston's. The SCI showed discriminant, divergent, and incremental validity over the MMPI and Rotter's and Wallstons' locus of control scales (cf. Shapiro, Potkin, Jin, Brown & Carreon, 1993), divergent and convergent validity with the Eysenck personality questionnaire (Santibanez, 1992), and discriminant validity through contrasted groups of meditators and Type A individuals (Shapiro, 1994). Research has also sought to link control constructs with brain regions-functional neuroanatomy-through positron emission tomography (Shapiro et al., 1995b). Having control was positively associated with activation of frontal cortex components and negatively correlated with limbic system activation, particularly the amygdala.

Below, we summarize the main aspects of the SCI control profile:

1) *Sense of Control*. What we define as "a person's perception slhe has control, or

the belief that s/he can gain such control if desired," measured in both general and specific domains.

2) *Modes of Control.* The characteristic cognitive and behavioral styles for obtaining and maintaining control, reflecting coping styles of positive assertive, positive yielding, negative assertive, and negative yielding. As we discuss in the next section, these two positive modes of control, assertive and yielding, represent in many ways the two approaches to spiritual/transpersonal growth and development we identified at the outset of this paper.

3) *Motivation for Control.* Whether a person has a low or high desire for control, the areas where s/he wants to gain more control and where s/he fears losing control.

4) *Agency of Control.* The source of a person's sense of control (similar to locus of control). Does the client gain a sense of control from self-efforts, the efforts of others, or from both?

#### APPLICATIONS TO TRANSPERSONAL PSYCHOLOGY

In this final section, we outline several areas where we feel the construct of control is relevant to transpersonal issues: 1) contemplative practices and their effect on positive yielding control; 2) the cultivation of the transpersonal "Witness" and its relation to control; 3) control by a benevolent Other (God, the Divine); 4) spiritual pursuits and their relationship to negative control efforts; and 5) the ability to balance assertive and yielding modes of control as a hallmark of spiritual growth and development. We end this section by discussing a number of challenging and provocative questions that control raises with respect to transpersonal psychology.

#### *Spiritual Practices: Effects on Yielding Mode of Control*

Findings from several studies suggest a relationship between practicing meditation and being able to gain a positive sense of control through the previously identified "accepting/yielding mode." For example, Easterline (1992) and Shapiro (1992) both found a relationship between length of time practicing meditation and one's perceived ability to utilize this yielding mode of control. Astin (1997) found that college students trained in mindfulness meditation showed significantly higher scores on the SCI's accepting mode of control as well as the Kass, Friedman, Lesserman, Zuttenmeister and Benson's (1991) Index of Core Spiritual Experiences (INSPIRIT). The above findings seem consistent with the emphasis that many contemplative traditions place on cultivating acceptance of what is (i.e., surrendering the desire to have experience match the incessant likes and dislikes of the mind).

One could argue that to call letting go of or surrendering control (i.e., positive yielding) a form of "control" is somehow contradictory. We believe, however, that this seeming paradox can be resolved or better understood if one realizes that the ability to let go of control, to yield and accept, is a *skill*. We are reminded of a woman

who was being taught in meditation to "let her breathing go," to simply "let it be easy." She commented (to one of us) that she was afraid of losing control, saying that "I don't think I have the self-control to let go of control. ... " Similarly, we believe that the ability to let the Divine or spiritual teacher, shaman, etc. guide or control one represents a skill. Further we would argue that it is important in the transpersonal field to distinguish negative yielding to another's control (such as one might observe within a cult) from positive yielding in which one consciously and skillfully surrenders control from a position of ego strength (cf. Wilber's (1995) discussion of the *prel* trans fallacy).

#### *Sense of Control and "The Witness"*

The cultivation of the "Transpersonal Witness," a focus of many spiritual traditions (cf. Wilber, 1995), has a number of implications related to control: a) As one watches (witnesses) the oftentimes incessant chatter and clamor of the mind, one comes to realize what little control he or she actually has over these processes; b) As one learns to rest more in the Witness, one begins to notice his or her characteristic ways of reacting cognitively, emotionally, and behaviorally to life's myriad circumstances. This type of awareness enables one to be less controlled and dominated by such reflexive reactions and instead provides the spaciousness to choose (i.e., control) how he or she will respond; c) Development of the Witness can also serve to increase awareness of our neurotic/dysfunctional efforts to control our experience. While also helping us to realize the limits of personal control (i.e., despite our best efforts to master ourselves and direct the course of our lives, there will always be variables that are uncontrollable). Consistent with the above points, Eastertine (1992) found that a greater overall sense of control as well as a decreased desire for control (as measured by the SCI) were associated with length of time practicing meditation.

#### *Nature of the Universe: Control by a Benevolent Other*

Several lines of research (cf. Taylor, 1983; McIntosh, Silver & Wortman, 1993; Shapiro et al., 1996) suggest that some individuals derive their sense of control from a "benevolent other," oftentimes spiritual in nature (e.g., the 12-step programs' emphasis on regaining behavioral control through acknowledging the support and spiritual guidance of a "Higher Power"). For example, in our research on breast cancer patients (Shapiro et al., under review), we found a significant number of women who reported gaining a positive sense of control from their faith in God.

As discussed, the SCI assesses individuals' agency or source of control (i.e., the degree to which people gain their sense of control from self and/or other/Other) and can be used to examine the effects that gaining a sense of control from a spiritual source may have on mental and physical health outcomes. Also it would be interesting for transpersonal researchers to examine the ways in which disciples' relationships to spiritual figures (e.g., such as gurus) may impact upon their sense of control and the ways in which they derive such control.

### *Dangers of Overcontrol and Too Little Control in Spiritual Pursuits*

The two positive modes of control (assertive and yielding) also have their negative or shadow counterparts, negative assertive (overcontrolling) and negative yielding (being overly passive and acquiescent) (Shapiro & Astin, in press). These negative modes of control may have relevance to transpersonal issues and pursuits in several ways. For example, efforts to rise above the desires and attachments of the ego, a common theme in many contemplative disciplines and paths, can become a kind of rigid, repressive, *overcontrol* of one's self and emotions (a denial rather than transcendence of one's human limitations). Conversely, individuals involved in transpersonal/esoteric disciplines which emphasize such things as devotional surrender to God and guru, and unconditional obedience and loyalty to the spiritual Master, may become too passive, nonassertive, and overly dependent, letting go of control in a maladaptive ("negative yielding") way. Examining these negative aspects of seeking and gaining a sense of control, as the SCI does, may shed light on some of the potential consequences or pitfalls associated with the pursuit of transpersonal experience.

### *Balancing Assertive and Yielding Modes of Control*

The two modes of control we have outlined thus far have their corollary in the Taoist concepts of yin and yang, the universal forces of receptivity and activation. As can be seen in the yin-yang symbol, there are elements of each of these qualities contained within the other. For example, in terms of control, one could say that it requires great discipline, will, and self-control to let go and relinquish one's efforts to always be in control. Similarly, acceptance of ourselves as we are can often be the soil for subsequent change or transformation. These ideas are captured in these lines from the *Bhagavad-Gita*: "Who sees inaction in action and action in inaction-He is enlightened among men-He does all actions, disciplined." We also find a similar message expressed in Krishna's words to "act, but be not attached to the fruits of your labors...." The above concepts point to both the paradoxical nature of control (e.g., we often realize greater sense of control by letting go of active control) and the importance of living one's life in balance. The harmonious integration of these two modes of control (two modes of being) is beautifully expressed in the Alcoholics Anonymous Prayer (adapted from Reinhold Niebuhr): "God, grant me the courage to change what I can [assertive control or the qualities of yang], the serenity to accept what I cannot change [yielding control-the qualities of yin], and the wisdom to know the difference." Along these lines, our research on how people realize a sense of control in their lives also suggests that optimal psychological health is characterized by a balanced and flexible use of the two positive modes of assertive *and* yielding control, as well as their integration.

### *Further Questions and Considerations*

1) An important question concerns the extent to which there are limits on humans' ability to control attentional processes, bodily processes, subtle energies, and envi-



ronmental circumstances. For example, when is the popular concept that "we create [control] our own reality": 1) a healthy expression of positive assertive control; 2) a dysfunctional desire to control that which is uncontrollable; 3) a magical (i.e., pre-rather than trans-personal) belief in the power to affect/control outcomes in life; and/or 4) a statement grounded in a truly transpersonal state of conscious awareness, one which recognizes the primacy of consciousness? These questions point to the importance of examining *contextual* factors related to the experience and exercise of control.

2) Though beyond the scope of the SCI, we feel it is important to consider larger philosophical issues and transpersonal concepts such as the Buddhist doctrine of "no self" (and the Veda's "God is the Doer"), which raise ontological issues related to control such as *what* or *who* (e.g., ego, self, the Divine) is doing the controlling, feeling out of control, desiring to be in control.

3) A related question of interest to transpersonal psychologists is what is the nature of control in altered states such as dreams, shamanic trance, and other nonordinary states of consciousness. For example, Walsh (1990) has noted that there can be, even in trance states, voluntary control of consciousness. On the other hand, in his study of Balinese religious rituals, Shapiro (1989) has observed that when individuals enter trance, there is a point at which they relinquish or surrender personal control to the context (e.g., the priest). Finally, some have suggested that individuals resist learning about spiritual and transcendent experiences, or repress and misinterpret them, due to the desire for control, the fear of loss of control, and/or a *low* tolerance for ambiguity. Along these lines, Ayya Khema (1996) notes:

People fear absorption in the Jhanas because they think they are losing control... I tell them when you are swept away by feelings of ordinary unhappiness, you obviously have no control over yourself. A person who is in control would never voluntarily be unhappy. So in your ordinary life you must be lost or out of control. By contrast in absorption, we no longer project our ego onto reality. We are experiencing taste of the emptiness of self, and while it may feel as if we are losing control, we are actually at last arriving at truth.

#### SUMMARY

To summarize, we believe that the construct of control has important applications to transpersonal psychology for a number of reasons: 1) self-control (of cognitions, emotions, and behavior) is a central feature of many transpersonal/contemplative disciplines and may be enhanced as a result of cultivating states of awareness such as the "transpersonal witness"; 2) research suggests a relationship between practice of meditation and the ability to gain a sense of control through an accepting/yielding mode; 3) the ability to utilize both assertive and accepting modes of control may be a correlate of both optimal psychological health and spiritual development/maturity; 4) research suggests that some individuals gain a sense of control in their lives through their relationship with some Spiritual Presence or Power; and 5) the pursuit of transpersonal goals may be associated with negative/maladaptive aspects of gaining and seeking control (e.g., overcontrol, passive acquiescence).

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