Compassion, Altruism, Contemplative Practices and Psychological Well-being

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Introduction

For the past five decades, there has been a growing interest in the effects of meditation. In the early 70s, Herbert Benson, founder of the Mind/Body Medical Institute, began studying the effects of meditation in highly trained Tibetan yogis. He then examined physiological and psychiatric effects of practice using a westernized version of Transcendental Meditation, popular in the late 60s and 70s. The study of meditation grew into the field now called "contemplative science," as multiple teams have led to an explosion of interest in contemplative traditions and their beneficial effects, including on clinical disorders such as anxiety, depression, substance abuse, chronic pain, immune function, blood pressure, cortisol levels and telomerase activity.

While contemplative practices have traditionally been rooted in religious traditions, in the past several decades significant efforts have been aimed at secularizing meditation practices in order to make them more attractive to Western populations. Most popular today are those referred to as "mindfulness." While many traditions share similar goals, such as to develop concentration, deepen understanding and insight, and to cultivate awareness of the interconnectedness of all life and compassion towards self and others, they also exhibit differences, particularly in whether goals are self or other focused. The need to better understand factors influencing positive outcomes of meditation has led to a growing number of studies.

After two decades of studying altruism, empathy and the empathy-based types of guilt associated with pathogenic cognitions or imaginary crimes, pathological altruism, and multiple psychological problems, we became interested in the experience of Tibetan Buddhists who, differing from many who escape politically repressive countries, were found to be less vulnerable to PTSD and depression when migrating to India, despite the severe traumas they had experienced in Tibet. Sophisticated fMRI studies suggested that experienced Tibetan meditators showed signs of enhanced emotion regulation and general well-being. In our first study of 98 Tibetan Buddhist practitioners, they demonstrated significantly lower levels of pathogenic guilt, pathogenic empathy, depression, and neuroticism, and significantly higher levels of altruism towards strangers. These positive outcomes were predicted by intensity of practice.

The present study was designed to compare secular and religious contemplative practitioners to a normal (non-practicing) sample. Groups included: Tibetan and Theravada Buddhists, Christian meditators, Mindfulness (secular) and Yoga practitioners. We asked: Do practitioners of popular secular "mindfulness meditation" have the same kinds of positive outcomes as religious practitioners? Do different religions have different outcomes? Is contemplative practice embedded in a religion more likely to have a positive impact when compared to secular (non-religious) contemplative practice? The present study begins to shed light on these questions.

Sample Characteristics

The Contemplative Practitioner sample (N=2409; 84.8% female; mean age 52.5 years, range 18-87) represent the following practices: Tibetan (n=156), Theravada (n=136), Centering Prayer (n=108) and Mindfulness (including Mindfulness-based Stress Reduction and Other Mindfulness) (n=1071), Soto Zen (n=36), Pure Land Buddhism (n=9), Yoga (n=309), and a variety of other and mixed practices (n=250). Most participants were European American (78.8%); other ethnicities included Asian/Indian/Pacific Islanders (2.2%), Latin American (2.0%), African American (1.2%), and small sample of other and mixed identifications. Current religious identifications were as follows: Buddhist (including Tibetan and Theravada) (23.2%), Christian (13.5%), Jewish (3.2%), Hindu (0.8%), none (35.8%), and other or non-response (28.2%). The sample was highly educated, with 14.2% with a doctoral degree, 39.5% with a masters' degree, 19.3% with a bachelors degree, and 24.2% with some college education.

The general population sample (N=450; 85.4% female; mean age 30.4 years, range 18-72) completed an online survey that included most of the psychological outcome variables as the contemplative group. Most of the sample were European Americans (60%) or Asian-Americans (19%). Religious identifications were 53.8% Christian, 8.4% Jewish, 2.7% Buddhist, 1.3% Muslim, 17.1% none, and 16% other or non-response. The sample was well educated, with 3% having a doctoral degree, 13.8% a masters degree, 33.1% a bachelors degree, and 39.8% with some college education.

Methods

We conducted an anonymous online survey that included 2409 practitioners and 450 non-practitioners. The study was announced on a variety of listservs.

INSTRUMENTS:
Interpersonal Guilt Questionnaire-67 (IGQ-67; O'Connor, Berry, Weiss, Bush & Sampson, 1997). The IGQ-67 is a 67-item measure, using Likert-type scales to assess empathy-based guilt. Subscales included: Survivor Guilt is characterized by the belief that being successful or happy will make others feel inadequate simply by comparison (e.g., "It makes me very uncomfortable to receive better treatment than the people I am with"). Separation Guilt is characterized by the belief that if a person separates, or differs from loved ones he or she will cause loved ones to suffer (e.g. "I am reluctant to express an opinion that is different from the opinions held by my family or friends"). Omnipotent Responsibility Guilt is characterized by the belief that one is responsible for the well-being of others (e.g. "I often find myself doing what someone else wants me to do, rather than doing what I would most enjoy").

Compassionate Altruism Scale (CAS; Berry & O'Connor, 2002). The CAS is a 45-item instrument, derived from a measure of social support (Vaux, Riedel, & Stewart, 1987). Instead of measuring how much social support a person received, the CAS measures how much support someone tends to extend to others. Respondents indicate how frequently they perform acts of altruism for family members, friends, and strangers in a variety of social situations. Items from this questionnaire include how often the participant "gave money for an indefinite amount of time" and "helped them think about a problem."

Interpersonal Reactivity Index (IRI; Davis, 1980): The IRI is a 28-item self-report instrument measuring distinct categories of empathy. Perspective taking is the ability to identify with, or understand cognitively the situation experienced by another person. Empathic Concern is the degree of concern a person tends to feel on witnessing difficult or unpleasant experiences occurring to another person. Personal Distress is the degree of distress a person is likely to feel, upon witnessing difficulties experienced by another person.

The Center for Epidemiologic Studies Depression Scale (CESD; Radloff, 1977) is a widely-used 20-item self-report instrument, with responses on a Likert scale ranging from 0 to 3, and total scores ranging from 0 to 60. The cut off score for depression is equal to or greater than 16, which indicates at least a mild depression, though many clinicians mark a mild depression staring well below 16.

Brief Big Five Inventory (BFI; John, 1990) is a 44-item self-report inventory for assessing five personality traits: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. We also calculated a score for the General Factor of Personality (GFP), which reflects broad adaptive capacity (resilience) and social functioning.

Table 1: Contemplatives vs. Non-Contemplatives on Measures of Psychological Well-being

	Contemplatives	Non-Contemplatives	
	M	M	t
Survivor Guilt	70.0	68.3	3.11**
Separation Guilt	34.8	37.6	-6.33***
Omnipotence Guilt	44.5	47.5	-7.52***
Perspective Taking	26.2	25.3	3.47**
Empathic Concern	28.6	27.8	3.69***
Empathic Distress	15.6	17.3	-6.10***
Altruism-Family	172.4	170.5	1.13
Altruism-Friends	167.5	174.1	-4.58***
Altruism-Strangers	100.8	91.7	5.71***
CESD	12.5	21.5	-6.64***
Extraversion	25.8	25.6	0.71
Agreeableness	36.0	33.4	9.06***
Conscientiousness	34.5	31.3	10.05***
Neuroticism	21.5	25.2	-10.62***
Openness	40.8	39.3	4.83***
GFP	121.7	110.4	10.99***

Note. GPF=General factor of personality; For the CESD comparison, *df*=2443; for other comparisons, *df* ranged from 2782-2850.
** $p<.01$ *** $p<.001$

Table 2: Correlations within the Contemplative Practitioner Sample

	Intensity of Practice	How long meditating	Strength of Practice
Survivor Guilt	-.08**	-.10***	-.09***
Separation Guilt	-.13***	-.12***	-.13***
Omnipotence Guilt	-.15***	-.16***	-.16***
Perspective Taking	.05*	.13***	.11***
Empathic Concern	-.01	.06**	.05*
Empathic Distress	-.09***	-.12***	-.13***
Altruism-Family	.02	.05*	.04
Altruism-Friends	.02	.05*	.05*
Altruism-Strangers	.12***	.15***	.18***
CESD	-.11***	-.18***	-.18***
Extraversion	.02	.08**	.06*
Agreeableness	.09***	.13***	.12***
Conscientiousness	.09***	.09***	.12***
Neuroticism	-.14***	-.17***	-.18***
Openness	.12***	.17***	.17***
GFP	.14***	.20***	.20***

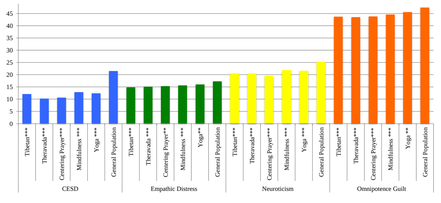
Note. Spearman rank correlations. GPF=General factor of personality; Sample sizes for correlations range from 1,828-2,104.
* $p<0.05$ **$p<.01$ *** $p>.001$

Table 3: Comparison of Psychological Outcomes based on Self- vs. Other-Focused Goals of Contemplative Practice

	Self-focused	Other-focused	
	M	M	t
Survivor Guilt	70.1	69.9	0.36
Separation Guilt	34.9	33.2	3.95**
Omnipotence Guilt	44.5	42.9	3.32**
Perspective Taking	26.2	27.2	-3.98**
Empathic Concern	28.7	29.3	-2.88
Empathic Distress	15.7	14.4	4.53**
Altruism-Family	172.2	175.1	-1.68
Altruism-Friends	167.5	170.6	-2.11
Altruism-Strangers	100.3	112.4	-6.73**
CESD	12.6	10.2	4.25**
Extraversion	25.7	26.8	-2.86**
Agreeableness	35.9	37.4	-4.81**
Conscientiousness	34.4	35.3	-2.52*
Neuroticism	21.6	19.4	5.55**
Openness	40.8	42.4	-4.82**
GFP	121.2	128.4	-6.35**

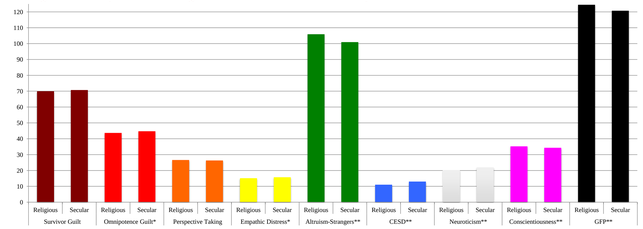
Note. GPF=General factor of personality; *df* range from 1735-1753.
*p<.05 **p<0.01

Figure 1: Contemplative Practice and Psychological Outcomes



Note. Total *df* range from 1893-1918. Asterisks after means indicate a significant difference from the non-practitioner comparison group based on Dunnett's *t*-test.
*p<.05 ** p<0.01 ***p<0.001

Figure 2: Comparison of Religious and Secular Practice Groups



Note. GFP=General factor of personality. The *df* ranged from 1760-1776.
*p<.05 **p<0.001

Results

Contemplative Practitioners versus General Population
We first compared the full sample of contemplative practitioners to the general population sample on traits related to empathy, guilt, depression (CESD), and the Big Five personality factors. **Table 1** shows independent-samples t-tests for these comparisons. There were significant group differences for all variables except the personality factor of extraversion and altruism to family. The contemplatives were significantly higher in empathic concern, perspective-taking, empathy-based survivor guilt (guilt over being better off than others), altruism towards strangers, agreeableness, conscientiousness, openness to experience, and the general factor of personality. The contemplatives were significantly lower on depression, empathic distress, altruism to friends, neuroticism and omnipotent responsibility guilt. These results suggest better psycho-social functioning and positive personality traits in the contemplative practitioner group compared to a non-practicing community sample.

Practice Characteristics within Contemplative Practitioner Sample
In the full contemplative practitioner sample, we examined the rank correlation between meditation practice variables and psycho-social outcomes (depression, guilt, empathy, altruism, and personality factors). The practice variables were (1) Practice Intensity (product of frequency of mediation and duration of sessions); (2) How long meditating (from "Do not meditate" to "Over five years"); and (3) Strength of Practice (product of intensity of meditation with how long meditating). The correlations are shown in **Table 2**. In general, more intense meditation practice, and meditation over a longer period of time, was associated with higher altruism (especially toward strangers), better psychological functioning, and positive personality traits. We also looked at the relationship between the most important goal of the meditation practice selected by respondents in a forced choice question, and psychological well-being. For our analyses, we classified the most important goal of mediation as either "self-focused" ("relax," "improve my health," "make me more positive in general," "get out of samsara or cyclic existence," or "become enlightened") or "other focused" ("benefit all sentient beings"). Independent-samples t-tests were used to compare practitioners with these two classes of goals on psychological outcomes (see **Table 3**).

The results show that participants whose goals of meditation were other-focused were significantly higher in compassionate altruism towards strangers, perspective-taking (the cognitive aspect to empathy),

(Results continued)

extraversion, agreeableness, conscientiousness, openness, and the general factor of personality; they were significantly lower on depression, emphatic distress, separation guilt, and the personality factor, neuroticism, that represents proneness to anxiety and negative emotions.

Comparison of Religious and Secular based Contemplative Practices on Psychological Outcomes
The previous analyses included all contemplative practitioners who completed the survey. We next examined subgroups of practitioners based on whether their practices were explicitly religious or nonreligious. Three of the contemplative practices are explicitly religious in nature: Tibetan (practice of Mahayana or Vajrayana Buddhism); Theravada Buddhism; and Centering Prayer (Catholic in origin, and practiced by various Christian traditions). We classified Mindfulness (either Mindfulness-based Stress Reduction or any other mindfulness practice) and Yoga as primarily secular. We conducted ANOVAs to compare the separate religious practice groups and the secular practice group to the general population group on the empathy, guilt, depression, and personality variables (see **Figure 1**). All practitioner groups were significantly lower than the general population group on depression, neuroticism, omnipotence guilt, and empathic distress

Finally, we combined the three religious practice groups and compared them to the secular practice groups (mindfulness and Yoga) on psycho-social outcome variables using independent-samples t-tests (see **Figure 2**). We found the religiously based practitioners were significantly higher on altruism towards strangers, conscientiousness, and resilience (GFP) compared to the secular groups, and significantly lower on depression, omnipotence guilt, empathic distress, and neuroticism, again compared to secular practitioners. There were no significant differences between the religious and secular contemplatives practitioners on altruism towards family and friends.

We also compared the religious and secular practitioners on the primary goal of meditation (self-focused versus other-focused). A significantly higher percentage of religiously-based practitioners (38.9%) endorsed other-focused goals compared to the secular practitioners (14.8%), $\chi^2(1)=85.6$, $p<.001$. For the separate practitioner groups, other-focused goals were endorsed by 58.4% Tibetan, 26.6% Theravada, 22.9% Centering Prayer, and 14.8% Mindfulness (secular) practitioners.