

# Psychology of Religion and Spirituality

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Online First Publication, April 11, 2019. <http://dx.doi.org/10.1037/rel0000259>

### CITATION

Edinger-Schons, L. M. (2019, April 11). Oneness Beliefs and Their Effect on Life Satisfaction. *Psychology of Religion and Spirituality*. Advance online publication. <http://dx.doi.org/10.1037/rel0000259>

# Oneness Beliefs and Their Effect on Life Satisfaction

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The notion of being at one with a divine principle, life, the world, other persons, or even activities has been discussed in a wide variety of scientific research streams from different disciplines. It is the central goal of this article to empirically capture the notion of oneness beliefs as a time-invariant individual character trait and analyze its consequences. The results of 2 large-scale ( $N_1 = 7,137$ ;  $N_2 = 67,562$ ) empirical studies using nonstudent samples reveal that the oneness beliefs scale has good psychometric properties and correlates with related variables whereby being clearly discriminable from them. Intra-individual comparisons of 2 repeated measurements of oneness beliefs show a high correlation that is an indicator for the time-invariance and stability of the personality factor. The hypothesized positive effect of oneness beliefs on life satisfaction can be confirmed by applying cross-lagged regressions to test for the directionality of the effect (Study 1). The large nonstudent sample in Study 2 allows for an analysis of the effect of oneness beliefs on life satisfaction controlling for the religious affiliation of the participants. Results reveal a significantly positive effect of oneness beliefs on life satisfaction, even rendering the effect of some religious affiliations insignificant or negative.

**Keywords:** oneness beliefs, (subliminally activated) oneness fantasies, self-other overlap, connectedness, life satisfaction

“A sense of being one with all of creation, being one with the ocean, being one with the heavens . . . there’s a feeling of completeness.”  
(Anona Napoleon—Surfing for Life)

“All Being, despite this plurality, is a Unity still.” (Plotinus)

The idea of *oneness* can be traced back to ancient philosophy. The Presocratics already discussed “the one” as the first principle of all being things. The argument of the “one over the many” (hen epi pollon) was introduced by Plato, meaning that the simple “one” always has to come before the complex “many.” The Neoplatonist Plotinus (205–270) saw the transcendent “ONE” (τὸ ἕν) as the source of all being things. In his theory all embodied individual souls are permanently rooted in this first principle. The idea of all things being rooted in one underlying unifying principle has persisted from the Presocratics as the first documented western philosophers to modern-day esotericism in the 21st century.

The notion of being at one with a divine principle, life, the world, other persons, or even activities has been discussed in various religious traditions but also in a wide variety of scientific research streams from different disciplines. Thereby, research results from various disciplines point to the positive effects of feeling at one with life, connected to others, or connected to nature on adaptation, well-being, and life satisfaction. For instance, psychological research in the 1980s has intensively and controversially discussed *oneness fantasies* as a regressive longing for the

idealized good mother of early childhood. Research on the effect of subliminally activated symbiotic feelings of oneness has been conducted mainly in the laboratories of Lloyd H. Silverman in New York. The group of researchers around Silverman produced a series of results suggesting that the subliminal stimulus “MOMMY AND I ARE ONE” leads to significantly enhanced adaptation in widely varying populations of respondents ranging from patients suffering from schizophrenia to addictions or obesity.

Further, during the past 25 years a considerable amount of research has been done on the personality trait of *connectedness*, whereas different types of connectedness (to social groups vs. to nature) have been discussed and have been shown to be beneficial for the well-being of individuals (e.g., Hill, 2006; Lee & Robbins, 1995; Rude & Burnham, 1995).

Situational *oneness experiences* are frequently described by, for example, artists, meditators, runners, and writers and are commonly understood as healthy, progressive, and life enhancing components of human experience. Chirban (2000) for instance describes “listening to a piece of music, feeling awe-struck by the magnificence of nature, experiencing the rapture and ecstasy of romantic and sexual love, and achieving spiritual union with a higher being” as “ineffable moments in human experience” (p. 247). From her analysis of various personal accounts of such healthy oneness experiences she concludes that this loosening of the borders of the self’s barrier to the unity with an “other” leads to “the reemergence of a self- enhanced by increased vitality and more intricate integration” (p. 247).

During the last four decades, research in the field of the psychology of religion and spirituality has investigated situational *mystical experiences* that, according to the accepted definition, include a subdimension of perceiving everything as one (Hood,

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1975). The study of more enduring oneness beliefs, that is, beliefs in the essential oneness and interconnectedness of all phenomena, however, has just been tapped by one very recent article, that is, Garfield, Drwecki, Moore, Kortenkamp, and Gracz (2014). Based on five studies, the authors report that oneness beliefs are more strongly related to mystic experiences and spirituality than to traditional religiousness. Further, they report an empirical link between oneness beliefs and proenvironmental attitudes and behaviors.

However, many questions concerning oneness beliefs remain to be answered. The most basic question among these is: Do oneness beliefs have a positive effect on life satisfaction over and above the effect of religious affiliation? To address this question, the article at hand aims to study such beliefs and their effect on life satisfaction using large nonstudent samples including respondents from various religious backgrounds. In a first empirical study, a psychometric scale for the measurement of oneness beliefs is developed and tested in a nonstudent sample ( $N = 7,137$ ). Moreover, a commonly used measure for life satisfaction (Diener, Emmons, Larsen, & Griffin, 1985) is integrated into the questionnaire to investigate whether an adaptation-enhancing effect of oneness beliefs can be observed in the dataset. Data from the same individuals is collected twice within a period of 6 weeks ( $N = 3,068$  individuals also took part in both time points) to allow for a test for the intraindividual correlation between both measurements and, thus, to test for the stability of the trait over time as well as to check for reversed causality in the effect of oneness beliefs on life satisfaction. Data on related important traits (empathy, social connectedness, and connectedness to nature) of the respondents is collected to test for the discriminant validity of the oneness beliefs measure as well as to explore its interrelationships with these other constructs. In a second study using a very large nonstudent sample ( $N = 67,562$ ), differences in oneness beliefs concerning varying religious affiliations are explored in detail and the positive effect of oneness beliefs on life satisfaction is investigated controlling for the various religious backgrounds of the respondents.

Results reveal that the oneness beliefs scale has good psychometric properties and correlates with related variables (empathy, social connectedness, and connectedness to nature) whereby being clearly discriminable from them. The two time point measures of oneness show a high intraindividual correlation ( $r = .673$ ;  $p < .000$ ) that is an indicator for the time-invariance and stability of the personality trait (correlations between the repeated measurements of oneness, connectedness, and empathy are similar in size).

The article at hand contributes to the emerging stream of research on oneness beliefs by being the first study to explore oneness beliefs in a large nonstudent sample including subgroups of respondents from various religious traditions. It is a unique finding of this study that oneness-beliefs significantly enhance individual life satisfaction over and above the impact of religious affiliation. This may be because of more effective coping processes that we discuss as an important avenue for future research.

The article will proceed as follows: in the upcoming section, the related streams of literature will be presented in more detail and their similarities and differences will be discussed. Based on this groundwork, a measurement instrument of oneness beliefs will be developed and empirically validated in Study 1. The relation between oneness beliefs, connectedness, and empathy will be explored and statistical techniques will be applied to test for the

directionality in the effect of oneness and life satisfaction (i.e., cross-lagged regressions). Additionally, the effect of oneness on life satisfaction will be investigated in more detail controlling for religion. Finally, results will be summarized and discussed and directions for further research will be identified.

## Related Literature

### Subliminally Activated Oneness Fantasies

A whole body of psychological literature discusses so-called *oneness fantasies*, usually understood by psychologists as the central human striving to return to what has been lost—a state of psychological symbiosis with the good mother of childhood. In 1927 in a letter to Sigmund Freud, Romain Rolland coined the phrase “oceanic feeling” to refer to the sensation of being one with the universe that he viewed as the source of all religious energy. Freud discussed this feeling as being a preserved “primitive ego-feeling” from infancy.

The most important characteristic of this understanding of oneness is that the longing for symbiosis is interpreted as a regressive activity, trying to reestablish merger experiences from the past. For instance, Ferenczi (1950) describes an original undifferentiated state in development, assuming that there is an innate regressive pull toward this state throughout life. Jacobson (1965) states that the “desire to reestablish that lost unit [. . .] probably never ceases to play a part in our emotional life” and that the “experience of physical merging and of an ‘identity’ of pleasure in the sexual act may harbor elements of happiness derived from the feeling of return to the lost, original union with the mother” (p. 39). Mahler, Pine, and Bergmann (1975) regard undifferentiation and individuation in infant life to be the basis of an entire life cycle of longing for the actual or fantasied state of self—the union between infant and mother. Searles (1979) poses that regress to oneness states aims at escaping identity diffusion. Lachmann and Beebe (1989) stress the importance of preserving a healthy sense of the self and even assume that losing this sense of oneself as whole and integrated may lead to searching for merger-like experiences as addictions, perversions, masochistic enactments, or adherence to cults.

Inspired by the idea of unconscious oneness fantasies that may enhance adaptation, a group of researchers around Lloyd H. Silverman has intensively studied the effect of subliminally activated oneness-fantasies on behavior during the 1980s. The major findings of their experiments are: stimuli that suggest a state of symbiotic-like oneness with “mommy” significantly reduce psychopathology and enhance adaptive behavior (Silverman, Lachmann, & Milich, 1982). Silverman and Weinberger (1985) even assume that patient-therapist relationships in psychotherapy owe their effectiveness, in part, to their having activated these symbiotic-like fantasies.

During the experiments, respondents were exposed to tachistoscopic presentations of the message “MOMMY AND I ARE ONE” for 4 ms, while a control group was exposed to the control treatment “PEOPLE ARE WALKING.” According to the researchers, this subliminal activation of oneness fantasies in the experimental groups resulted in, among others, (a) decreased

thought disorders in schizophrenics, (b) decreased insect phobias, (c) significantly affected success in weight loss, (d) increased effectiveness of treatment programs for addictive populations, and (e) enhanced learning ability of students (Lachmann & Beebe, 1989).

For instance, Parker (1982) conducted an experiment on the effect of subliminally activated oneness fantasies within a group of 60 college students who were enrolled in an undergraduate summer session law course with him for 6 weeks. One group received the message MOMMY AND I ARE ONE, the second group received the message MY PROF AND I ARE ONE, and the third group received the neutral-control message PEOPLE ARE WALKING. The main dependent variable was the final examination grade received by each student. The results indicated that both experimental groups earned significantly higher grades than the control group.

Schurtman, Palmatier, and Martin (1982) divided 72 alcoholics into an experimental and a control group. In addition to the regular treatment program both groups received four subliminal exposures of a verbal message in each of six sessions over a 2-week period. The messages were MOMMY AND I ARE ONE (experimental group) and PEOPLE ARE WALKING (control group), administered under double-blind conditions. Among the alcoholics who were more symptomatic, the MOMMY message, when contrasted with the control, lowered anxiety and depression, enhanced self-concept, and reduced alcohol consumption after a 3-month follow-up.

In a similar set-up, Thornton, Igleheart, and Silverman (1987) divided 47 heroin addicts being treated at the New York VA Methadone Clinic into an experimental and a control group using the same treatments: In addition to the regular methadone treatment program, both groups received subliminal exposures to a verbal message (MOMMY AND I ARE ONE [experimental group] and PEOPLE ARE WALKING [control group]) for 24 sessions (four times a week for 6 weeks). When compared with control group, subjects in the experimental group showed a greater decrease in their use of heroin and other illicit drugs during the postintervention period. Additionally, the authors report that on a follow-up questionnaire, the experimental subjects reported being more in control of their drug habits and more effective in their work than did those in the control group.

Litwack, Wiedemann, and Yager (1979) attested that the stimulus "I AM LOSING MOMMY" caused the reversed effect of an increase in psychopathology in a sample of schizophrenic patients. Later replications showed that female respondents reacted more positively to the stimulus "DADDY AND I ARE ONE" and that the positive reaction of male populations was even further enhanced by using the stimulus "MY GIRL AND I ARE ONE" (Silverman et al., 1982). The researchers themselves admit that "there is no reason to assume that it necessarily represented the same 'symbiotic mother' evoked by the message MOMMY AND I ARE ONE and that further experiments are necessary (Silverman et al., 1982, p. 125). Hardaway (1990) provides a review of the existing experimental results on subliminally activated symbiotic fantasies. He conducted a quantitative review of past contributions of subliminal symbiotic activation research (correcting for statistical artifacts) that reveals only small but significant effects.

## Social Connectedness

Another body of literature has dealt with the construct of *connectedness* that can range from meaning a sense of connectedness of the self in relation to others or a more internally focused connectedness with the self. Some even speak of a feeling of connectedness to a larger meaning or purpose in life (Bellingham, Cohen, Jones, & Spaniol, 1989). Humans are said to have a powerful need for connectedness (Lee & Robbins, 1995). If this basic need is not met, this can have negative effects on their health, adjustment, and well-being (Moen, 1998; Rude & Burnham, 1995).

The state of connectedness is described as occurring "when a person is actively involved with another person, object, group, or environment, and that involvement promotes a sense of comfort, well-being, and anxiety-reduction" (Hagerty, Lynch-Sauer, Patusky, & Bouwsema, 1993, p. 293).

Connectedness is seen as an important factor in mental health and well-being by many authors who provide quantitative and qualitative evidence for the link (Floyd, 1999; Shields, 2008; Singelis, 1994; Theriault, 1997; Troop, Allan, Serpell, & Treasure, 2008). Kearney (1998) describes connectedness as "a sense of having a safe place within a community and a meaningful role to play" (p. 508).

It has been contrasted with perceived separateness (Lang-Takac & Osterweil, 1992). Adaptation-enhancing effects of connectedness include findings such as reduced eating disorders and self-mutilating behaviors among teenage girls (Harris, Blum, & Resnick, 1991), reduced suicidal thoughts and behaviors, violence, use of cigarettes, alcohol and marijuana, and older age of sexual debut (Resnick et al., 1997).

A more abstract concept of connectedness is discussed by Hill (2006) within the context of the American Indian worldview. The author characterizes this worldview as emphasizing the connectedness to the creation and the universe by recognizing the interdependence and interrelatedness of everything within the universe. In her view, a lack of this connectedness leads to passive-aggressive behaviors, compulsive gambling, alcohol and drug abuse, and suicide among the group of American Indians because of a feeling of separation and abandonment (Hill, 2006, p. 214). Searching for mechanisms to increase perceived connectedness in individuals, Hutcherson, Seppala, and Gross (2008) used meditation-techniques to increase connectedness in a controlled laboratory context. Indeed, compared with a closely matched control task, even just a few minutes of meditation increased feelings of social connection among the subjects.

## Connectedness to Nature

Recently, the discourse around connectedness has been revived by the introduction of the concept of *connectedness to nature*. Mayer and McPherson Frantz (2004) developed a measure for the personality trait connectedness to nature, meaning the level of feeling emotionally connected to the natural world. The authors empirically explore the effect of a person's connectedness to nature on ecological behavior and subjective well-being, finding significant associations. Based on this groundwork, Frantz, Mayer, Norton, and Rock (2005) conduct two empirical studies exploring the moderating role of proenvironmental internal characteristics on the negative effect of a heightened objective self-awareness on connectedness to nature, showing that the heightened objective

self-awareness leads to a decreased connectedness to nature only for nonenvironmentalists and those individuals scoring high on exploitativeness.

Further, by exposing respondents to real and virtual natural environments Mayer, McPherson Frantz, Bruehlman-Senecal, and Dolliver (2009) show that exposure to nature increases connectedness to nature, attentional capacity, positive emotions, and the ability to reflect on a life problem. Mediation analyses indicate that the positive effects of exposure to nature are partially mediated by increases in connectedness to nature and are not mediated by increases in attentional capacity.

Nisbet, Zelenski, and Murphy (2009) propose a new construct, Nature Relatedness (NR), and a scale that assesses the affective, cognitive, and experiential aspects of individuals' connection to nature. In line with this, Perrin and Benassi (2009) point out that Mayer and McPherson Frantz (2004) connectedness to nature scale does not capture an emotional connection to the natural environment but rather a cognitive belief.

Exploring the associations between nature and prosocial versus egoistic value orientations Weinstein, Przybylski, and Ryan (2009) show that participants immersed in natural environments reported higher valuing of intrinsic aspirations and lower valuing of extrinsic aspirations, whereas those immersed in nonnatural environments reported increased valuing of extrinsic aspirations and no change of intrinsic aspirations.

Howell, Dopko, Passmore, and Buro (2011) examine how people's psychological health is associated with their relationship to nature (associations among nature connectedness, well-being). In their data, significant associations emerged among measures of nature connectedness and indices of wellbeing. Providing further robust results supporting the link between connectedness to nature and well-being, Cervinka, Röderer, and Hefler (2012) systematically investigated the relationship between various operationalizations of well-being and connectedness to nature. Psychological well-being, meaningfulness, and vitality were found to be robustly correlated with connectedness to nature.

### Perceived Oneness With Others as a Perceived Self-Other Overlap

In a very recent stream of literature, the notion of *perceived interpersonal oneness* occurs to reinterpret the empathy-altruism link. Cialdini, Brown, Lewis, Luce, and Neuberg (1997) for instance point out that important features of the self-concept can be located outside of the individual and inside close or related others. The authors use this insight to reinterpret data previously said to support the empathy altruism model of helping, which asserts that empathic concern for another results in selflessness and true altruism. They argue that the conditions that lead to empathic concern also lead to a greater sense of self-other overlap raising the possibility that helping under these conditions is not selfless but is also directed toward the self. In three empirical studies they reveal that the impact of empathic concern on willingness-to-help is eliminated when oneness (a measure of perceived self-other overlap) is considered. They further show that empathic concern increases helping only through its relation to perceived oneness, thereby questioning the empathy-altruism model. The authors suggest that empathic concern affects helping primarily as an emotional signal of perceived oneness.

In a more recent empirical study, Goldstein and Cialdini (2007) hypothesize that people sometimes infer their own attributes by observing the freely chosen actions of others with whom they feel a sense of merged identity—almost as if they had observed themselves performing the acts. Before observing an actor's behavior, participants were led to feel a sense of merged identity with the actor through perspective-taking instructions or through feedback indicating that their brain wave patterns overlapped substantially with those of the actor. As predicted, observers incorporated attributes relevant to an actor's behavior into their own self-concepts, but only when they were led to feel a sense of merged identity with the actor and only when the actor's behavior seemed freely chosen. These changes in relevant self-perceptions led observers to change their own behaviors accordingly.

During the last years, a new area of research has detected physiological evidence for this phenomenon: recent research on mirror-neurons in neuro-science (e.g., Uddin, Iacoboni, Lange, & Keenan, 2007) suggests that self and other are two sides of the same coin, whether their physical interactions or their most internal mental processes are examined. Supporting this view, Kang, Hirsh, and Chasteen (2010) empirically show that the degree to which one perceives an overlap between the self and another person predicts the magnitude of the neural response after the observation of that person's errors.

### Ratcliffe's Feeling of Being

In his article "the feeling of being" Ratcliffe (2005) argues for the existence of what he calls "existential feelings." Under this umbrella term he pools feelings such as, for example, "separate and in limitation," "disconnected from the world," "part of the real world again," and "at one with life." Hence, a group of feelings that are not found on a standard list of emotions but, in his eyes, make a considerable contribution to the structure of experience, thought, and action. His existential feelings are supposed to be no mere descriptions of inner states, but of a general relationship toward the world as a whole. As he puts it: "the world can sometimes appear unfamiliar, unreal, distant, or close. It can be something that one feels apart from or at one with. [. . .] One can feel like a participant in the world or like a detached, estranged observer, staring at objects that do not feel quite 'there'." (p. 45)

He stresses the fact that these affections are feelings—the world can *feel* strange, familiar, homely, alienating, or intangible. These existential feelings constitute the basic structure of "being there," or as he terms it they represent "a hold on things" that functions as a presupposed context for all intellectual and practical activity (p. 46). Ratcliffe argues that whereas emotions are usually directed toward specific objects, events or situations, existential feelings embrace the world as a whole.

The author also discusses the interrelationship between feelings of the body and feelings toward objects, stating that they are two sides of the same coin. According to his opinion, existential feelings are feelings in the body, which are experienced as "one's relationship with the world as a whole" (p. 49). He also points out that for some feelings, bodily affections become less pronounced, that is, "when one feels 'at home' in the world, 'absorbed' in it or 'at one with life', the body often drifts into the background" (p. 49).

Ratcliffe quotes Heidegger to argue that experience presupposes an “attunement,” a feeling of belonging to the world, and that this attunement collapses in case of anxiety. Thus, he explains, that in cases of anxiety the “hold on things” or the sense of “being there” can be lost. He describes this feeling as a “total loss of relatedness” or as “disconnectedness from the world.” As an example for felt disconnectedness he mentions the case of schizophrenic patients who experience “unworlding.” In line with William James, Ratcliffe assumes that “world-orientations differ from person to person. Some are caught up in the world, fascinated by it. Others feel distant from it—estranged, and lacking in connection” (p. 57), indicating that his feelings of being rather represent personality traits than situational moods.

### Situational Oneness Experiences

In contrast to the regressive understanding of oneness fantasies as described earlier, oneness experiences that have been documented, for example, in art, religion, and literature have been understood as healthy, progressive, and life enhancing components of human experience. Chirban (2000) describes: “listening to a piece of music, feeling awe-struck by the magnificence of nature, experiencing the rapture and ecstasy of romantic and sexual love, and achieving spiritual union with a higher being” as “ineffable moments in human experience” (p. 247). She contrasts progressive oneness experiences from regressive oneness fantasies. She claims that such healthy oneness experiences “provide opportunities to transcend the experience of the separate self and join in a sense of oneness with another.” From her analysis of various personal accounts of such healthy oneness experiences she concludes that this loosening of the borders of the self’s barrier to the unity with an other leads to “the reemergence of a self, enhanced by increased vitality and more intricate integration.”

The progressive oneness experience is, according to Chirban (2000), marked by a deeper integration of the self, catalyzed by timelessness, being in the present moment, absence of self-consciousness, and experience of unity with an other. Thus, moments of oneness experience occur when a shift in consciousness takes place and the boundaries of the self are loosened. As Chirban puts it: “a self, capable of healthy oneness experience shifts to a level of organization marked by experience [ . . . ] to a highly sense dominated mode” (p. 249). She contrasts an infant’s oneness experience from that of an adult by arguing that adult experience includes the transcendence of more organized and established aspects of the self. Sheldon and Kasser (1995) points out that this shift in consciousness can represent a “reactivation of blocked energetic potential” (p. 101). Spitz (1985) argues that the situational experience of oneness leads to a more integrated adaptation to reality.

This description of oneness experiences as situational states bears some likeness to the theory of *flow experiences* as developed by Mihály Csikszentmihályi in the 1970s to describe a state of absorption in an activity. He observed this intense immersion in people successfully engaging in risky sports activities when their skills match the challenge, that is, when they are neither bored nor overstrained. Csikszentmihályi (2000) described that in this state, the activity and the consciousness become one, worries as well as the sense of time vanish, and a feeling of effortlessness and control over the activity leads to satisfaction and happiness. Since Csik-

szentmihályi’s work, the theory of flow experiences has been applied to all kinds of different tasks including purely intellectual activities.

### Religious Oneness Experiences

Religious oneness experiences are often described as states in which no self-defining activities take place. Philosophers as well as psychologists have been fascinated by these states of consciousness. In “the varieties of religious experiences” (1902), William James described how a state of perceived oneness can be achieved through mystical experiences: “In mystic states we [ . . . ] become one with the Absolute. [ . . . ] This is the everlasting and triumphant mystical tradition, hardly altered by differences of clime or creed [ . . . ] The me and [ . . . ] the thou are not separate [ . . . ] in the One, there can be no distinction” (p. 410–411). Similarly, Freud (1930) was inspired by Hindu meditation techniques as offering a feeling of oneness with the universe. In his discussion of sacred experience and in opposition to the psychological view that merger-like experiences are born out of a regressive longing, Jones (2004) claims that mystical religious experience is the search for transformation rather than regression to an infantile state, representing a central part of the ongoing process of human development.

The most extensive contemporary research on mystical experience has been conducted by Ralph W. Hood Jr. and colleagues (e.g., Hood, 1975, 1977; Hood, Hall, Watson, & Biderman, 1979; Hood, Morris, & Watson, 1993). The multidimensional scale developed by Hood (1975) to capture reports of mystical experiences includes a subdimension labeled “unifying quality” that is operationalized by items such as, for example, “I have had an experience in which I realized the oneness of myself with all things.” Hood (1975) describes this subdimension of mystical experience as “the experience of the multiplicity of objects of perception as nevertheless united. Everything is in fact, perceived as “One”” (p. 31). Despite the striking similarity of these items to the oneness beliefs construct which is of central interest in this study, Hood’s (1975) scale captures reports of *situational* experiences and not *enduring oneness beliefs*.

### Oneness Beliefs

In a very recent seminal paper Garfield et al. (2014) respond to the call for measures of spirituality that are applicable across religious traditions by developing a psychometric scale to capture *oneness beliefs*. In line with previous critical reviews of measures of spirituality (e.g., Kapuscinski & Masters, 2010), the authors argue that one major problem with past measures of spirituality was that most of them were based on Christian terminology and that this easily elicits resistance by the growing group of people who consider themselves as being spiritual but not necessarily religious at the same time (estimated to represent 25% of U.S. adults, Oman, 2013).

The authors provide the following definition of oneness beliefs: “a belief in the spiritual interconnectedness and essential oneness of all phenomena, both living and non-living; and a belief that happiness depends on living in accord with this understanding” (p. 357). Based on five empirical studies the authors report that oneness beliefs are more strongly related to mystical experiences and spirituality than to traditional religiousness. Further, they

provide empirical evidence for a link between oneness beliefs and proenvironmental behavior (i.e., donations to a proenvironmental group).

The study at hand uses a very similar conceptualization and operationalization of oneness beliefs as the study of Garfield et al. (2014). However, the psychometric scales are not identical as Garfield et al.'s study was published after the scale development and data collection for this study had been finished (for more information on the scale development undertaken in this study please see Study 1). The findings of this study are in line with the study of Garfield et al. (2014) in that they also underline the time-invariance of the oneness beliefs construct. However, over and above the results of Garfield et al. (2014) this study reports the effects of oneness beliefs on life satisfaction in a very large and heterogeneous sample making it possible to explore oneness beliefs in groups of people belonging to varying religious backgrounds. Thereby, this study responds to a call for studies using representative nonstudent samples (e.g., Hill, 2013).

### Conceptual Framework and Hypotheses

Whereas subliminally activated symbiotic fantasies, mystic experiences, or the oneness experiences of meditators and runners are situation-specific, it seems quite likely that a perceived oneness with close others or a longing for the idealized mother of early childhood may persist longer. Social connectedness, connectedness to nature, and the feeling of being at one with life discussed by Ratcliffe (2005) and the oneness beliefs conceptualized in Garfield et al. (2014) have been explicitly described as time-invariant character-traits that have important consequences for the lives of the individuals.

Oneness beliefs, which are the central object of interest in this study, are assumed to be time invariant trait just as social connectedness and connectedness to nature. Further, oneness beliefs are assumed to have favorable effects for the individuals similar to the effects that have been observed for the related constructs of social connectedness and connectedness to nature. In line with Garfield et al. (2014) we define oneness beliefs as *beliefs in the essential oneness and interconnectedness of all phenomena, living as well as nonliving*.

Based on Ratcliffe (2005) who assumes the feeling of being at one with life to be a feeling that persists over time and that represents an important part of the structure of intentionality, oneness beliefs can be assumed to represent a time-invariant personality trait. This claim is further underlined by Garfield et al. (2014) who explicitly test for the time-invariance of their oneness beliefs in a student sample. Thus, the first hypothesis is formulated as follows:

*Hypothesis 1:* Oneness beliefs represent a time-invariant individual difference factor that is related to but at the same time clearly discriminable from related constructs such as empathy, connected to nature and social connectedness.

The reviewed literature concordantly points to positive effects of connectedness (social connectedness as well as connectedness to nature) on various outcome variables enhancing the life of the individuals. Also, the subliminal activation of oneness fantasies has been shown to significantly increase adaptation. Situational oneness experiences have been described as being beneficial for

the lives of those experiencing them. Finally, Ratcliffe describes the feeling of being "at one with life" as an important starting point for positive human experience. Thus, all evidence points to a positive effect of oneness beliefs on the quality of the lives of individuals.

The most basic measure for quality of life is the satisfaction with life scale (Diener et al., 1985). Previous research has pointed out that religious affiliation can have positive effects of life satisfaction (e.g., Lim & Putnam, 2010 and the references therein). As oneness experiences are often discussed in religious or spiritual contexts and Garfield et al. (2014) explicitly conceptualize oneness beliefs as an indicator of a person's spirituality, it is important to explore the adaptation-enhancing effect of oneness beliefs over and above the effect of religious affiliations. Based on the extensive literature on adaptation enhancing effects of connectedness-variables and oneness fantasies reviewed in this article that are not necessarily related to religious affiliation, we propose that a positive effect of oneness beliefs over and above the effect of religious affiliation can be assumed. Thus, more formally:

*Hypothesis 2:* Oneness beliefs significantly enhance life satisfaction over and above religious affiliation.

### Overview of Studies

To empirically test the hypotheses, two empirical studies are conducted. In Study 1, a measurement instrument to empirically capture the oneness beliefs of the respondents is developed and validated on a considerably large nonstudent sample ( $N = 7,137$ ). Further, data from the same respondents is collected 6 weeks after the first data collection to check for time invariance of the oneness beliefs and to be able to apply more elaborate statistical techniques to test for the adaptation-enhancing effects of oneness. There were 3,068 respondents who took part in both data collections and their observations could be matched. In Study 2, a larger sample of nonstudent respondents is recruited ( $N = 67,562$ ). Given the large sample size in this study, differences in the level of oneness beliefs in the different groups of religious affiliations can be explored in detail and the positive effect of oneness on life satisfaction can be investigated controlling for the varying religious backgrounds of the respondents.

### Study 1: Measuring Oneness Beliefs

#### Scale Development

The central goal of Study 1 is to develop a suitable measurement instrument of oneness beliefs and to validate this psychometric scale on a representative sample. The study of Garfield et al. (2014) also developed and tested a psychometric scale to capture oneness beliefs. However, their study was published after the large data collections conducted in this study and, thus, their scale and the scale used in this article are not identical. Still, it is surprising how very similar the items used in both scales are, although the scale development approach was quite different. Garfield et al. (2014) used a deductive approach basing their item generation on contemporary Buddhist texts. The approach chosen in this study was an inductive approach. Based on the reading of the related literature and additional interviews with athletes (surfing, martial arts, yoga, and running), as well as meditators, artists, and scientists, an initial set of 20 items capturing

the notion of oneness beliefs was generated. The items included statements such as “I believe that everything in the world is connected to each other.” In a second step, the initial set of items was discussed within a group of researchers and reduced to a set of 10 items. These 10 items were pretested in a small student sample ( $N = 30$ ) whereby the respondents assessed the statements on a seven-point Likert scale ranging from “I do not agree at all” to “I totally agree.” Based on the pretest, the following five items with the highest factor-loadings (all items loaded on one factor) were chosen to form the final instrument:

1. I believe that everything in the world is based on a common principle.
2. All things in the world have a common source.
3. I believe that everything in the world is connected to each other.
4. I believe in a divine principle underlying all being.
5. Everything in the world is interdependent and influenced by each other.

This scale was used for a validation in a larger nonstudent sample including existing scales for social connectedness, connectedness to nature, and empathy. Additionally, satisfaction with life was added to the questionnaire to test whether the expected adaptation-enhancing effect of oneness beliefs can be confirmed.

**Sample and Data Collection**

The sample consists of 7,137 nonstudent respondents (72.4% female; mean age 38 years) that were recruited during a cooperation project between the university and an international retail company studying the proenvironmental attitudes and behaviors of their customers. Respondents were contacted via an online questionnaire at two time points 6 weeks apart from each other in 2013. The software package “Efs survey” was used to implement the online questionnaires. To capture the notion of oneness beliefs, the newly developed psychometric scale was assessed on a 7-point Likert-scale ranging from *I do not agree at all* to *I totally agree*. Additionally, existing items from scales capturing social connectedness, connectedness to nature, empathy, social desirability, and life satisfaction were integrated into the questionnaires.

**Scale Evaluation**

The validity of the scale for oneness beliefs was first assessed using factor analysis. All items used for capturing the construct

exhibit high factor loadings on the factor oneness ( $>.4$ ) and low factor loadings on all other factors ( $<.4$ ). Further, with a Cronbach’s  $\alpha$  value of .873 the scale shows a high degree of internal consistency. The Cronbach’s  $\alpha$  of all other scales also exceeds .7 that is considered acceptable (Nunnally, 1978).

All factor loadings are significant ( $p < .001$ ) providing evidence of convergent validity (Anderson & Gerbing, 1988). One item of the connectedness to nature scale (“When I think of my life, I imagine myself to be part of a larger cyclical process of living.”) also exhibits a high factor loading on the oneness factor (.567). However, a subsequent Fornell-Larcker test (Fornell & Larcker, 1981) confirms that the variance-extracted estimates of all scales are greater than the squared correlations between all constructs (including oneness), providing evidence of discriminant validity.

Table 1 gives an overview of the descriptives and correlations of Study 1. Correlation analysis reveals that oneness is significantly correlated with all other constructs in the list whereby the strongest correlation of oneness can be found with connectedness to nature ( $r = .613, p < .000$ ). However, correlations with empathy ( $r = .398, p < .000$ ) and social connectedness ( $r = .382, p < .000$ ) are also considerably strong.

Thus, Hypothesis 1, which proposed that oneness beliefs represent a trait that is related to but at the same time clearly discriminable from related constructs such as empathy, connected to nature, and social connectedness is supported. Although oneness beliefs exhibit significant correlations with the other constructs (especially with connectedness to nature) it is clearly discriminable from them and represents an autonomous trait that is also correlated with life satisfaction.

**Time-Invariance of the Oneness Beliefs Scale**

Six weeks after the data collections of t1 were conducted, the respondents were invited to take part in a second part of the study. There were 3,068 respondents who took part in both time points and individual observations could be matched. The same questionnaire as in t1 was used to reevaluate the respondents’ oneness beliefs, empathy, social connectedness, and connectedness to nature. The intraindividual correlations between both measurements of the same constructs are high, indicating that the traits are equally stable over time. The lowest intraindividual correlation is found for social connectedness ( $r = .604, p < .000$ ).

**Cross-Lagged Model of the Adaptation-Enhancing Effect of Oneness Beliefs**

Given that oneness beliefs and life satisfaction have been measured twice within a period of 6 weeks allows for more elaborate tests of the

Table 1  
*Descriptives and Correlations Study 1*

Construct	Descriptives					Correlations				
	<i>N</i>	Min	Max	Mean	<i>SD</i>	1	2	3	4	5
1. Empathy	7,061	1	7	5.55	.89	1				
2. Social connectedness	7,011	1	7	4.59	1.18	.526***	1			
3. Connectedness to nature	7,040	1	7	5.26	1.17	.509***	.418***	1		
4. Oneness beliefs	7,003	1	7	4.89	1.33	.398***	.382***	.613***	1	
5. Life satisfaction	7,066	1	7	4.98	1.24	.203***	.343***	.170***	.183***	1

Note. \*\*\* Correlation is significant on .000 level (two-tailed significance test).



directionality of the association between both constructs. Whereas a positive effect of oneness on life satisfaction is expected according to the literature and the positive correlation between both constructs has already been affirmed in the correlation analysis, the direction of the association could be very well reversed: a higher level of life satisfaction could just as well cause the respondents to feel more at one with life. Thus, we statistically test for the directionality of the causality (e.g., Toda & Phillips, 1994). The model specifies the lagged effects (oneness t1 on oneness t2 and life satisfaction t1 on life satisfaction t2) and the cross lags (oneness t1 on life satisfaction t2 and vice versa) as well as the correlations between the constructs at each time point (see Figure 1).

The model fits the data well with a CFI-value of .98. In line with the correlation analysis of the two time points of measurement, the results reveal that both constructs show significant and strong lagged effects. A  $\chi^2$ -difference test between an unrestricted model and a model where the lagged effects are restricted to the value 1 (as a test for stationarity) reveals that the restricted model does not fit significantly better than the unrestricted model. This allows for the interpretation of the cross-lagged effects. In line with the hypothesized directionality, there are striking differences in the cross-lags: the effect of life satisfaction in t1 on oneness in t2 is not significant but the effect of oneness in t1 on life satisfaction in t2 is highly significant on .000-level. A  $\chi^2$ -difference test between two models in each of which one of the cross-lags is restricted to 0 (Granger, 1988) confirms that the model in which the effect of life satisfaction in t1 on oneness in t2 is restricted to 0 fits the data significantly better. Hence, the causal direction of the association between oneness and life satisfaction is clearly in line with the assumptions derived from the literature: oneness beliefs are a significant determinant of life satisfaction over time, whereas there is no reversed effect of life satisfaction on oneness beliefs. Figure 1 summarizes the effects.

## Study 2: Adaptation-Enhancing Effects Of Oneness Beliefs Controlling For Religious Affiliation

### Descriptive Results

Given the large sample size in Study 2, multivariate statistical techniques can be applied to investigate the adaptation-enhancing effects of oneness beliefs in more detail. In Study 2, 48,111 respondents declared their religious affiliation. Among these, 15,799 respon-

dents stated to be Protestant, 12,422 to be Catholic, 1,076 to be Muslim, 120 to be Hindu, 296 to be Buddhist, 88 to be Jewish, 2,114 to belong to other Christian groups, 2,548 to belong to other non-Christian groups, and 13,648 to be atheist. Given this larger sample size it makes sense to have a look at the descriptive statistics of oneness beliefs in the different religious groups.

First, there are significant gender differences in oneness beliefs whereby female respondents have significantly higher oneness beliefs than male respondents do ( $\text{mean}_{\text{female}} = 5.18$ ,  $\text{mean}_{\text{male}} = 4.92$ ,  $p < .000$ ). Second, there is some evidence that education reduces oneness beliefs. Means in the levels of oneness beliefs decrease for the changes from secondary modern to secondary school level, and from secondary school level to diploma level, while there is no more decrease from diploma level to those respondents with a university degree (see Figure 2 upper left). Third, regarding income, the demographic results in this second study point to an inverted u-shaped effect of income on oneness beliefs (see Figure 2, upper right). Means of oneness beliefs increase for an increase in income from low to medium level, but start to decrease for an increase in incomes from medium to high levels. Fourth, oneness beliefs obviously increase with age. The only exception is the oldest group (respondents from 80 to 89 years; see Figure 2, lower left). In this group, the mean in oneness beliefs suddenly drops again.

An interesting, there are strong differences in the oneness beliefs across different religious affiliations (see Figure 2, lower right). The highest mean value of oneness beliefs can be found among Muslim respondents, whereby the second highest value is to be found among the Christian respondents who are not Protestants or Catholics.

### Regression Results

Regression analysis is applied to test whether oneness actually has a positive effect on life satisfaction over and above the effect of religious affiliation. For the estimation of the regression models, dummy variables for the different religious affiliation are computed with the option “atheist/no affiliation” being the reference category. The dummy variables and an averaged index of the items measuring oneness beliefs are tested as independent variables influencing the dependent variable life satisfaction. In a first regression model, only the effects of the dummy variables for religious affiliation and the effect of standard controls (i.e., age,

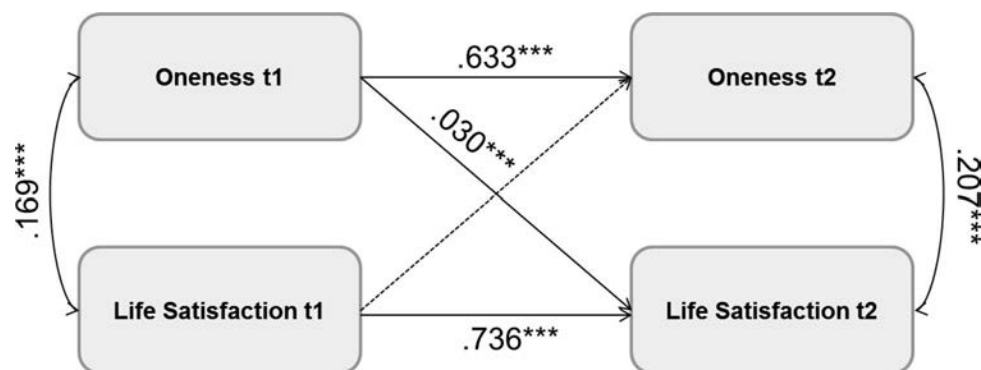


Figure 1. Cross-lagged model. \*\*\* significant on .000 level.

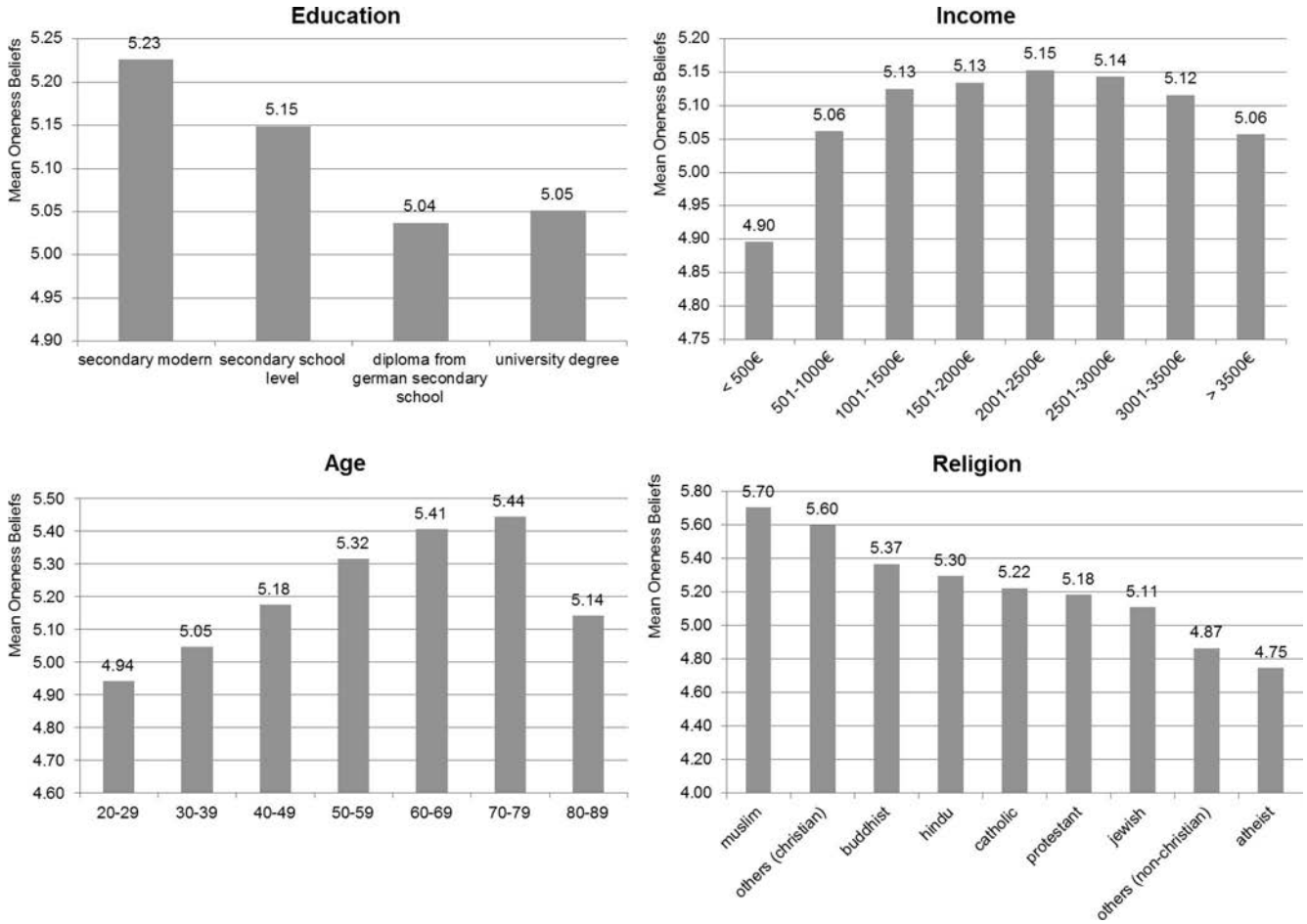


Figure 2. Study 2: Descriptive results.

gender, education, and income) are regarded. Hence, the regression Model 1 is specified as follows:

$$\begin{aligned}
 \text{Model 1: Life satisfaction} = & \beta_1 \text{ protestant} + \beta_2 \text{ muslim} \\
 & + \beta_3 \text{ hindu} + \beta_4 \text{ catholic} \\
 & + \beta_5 \text{ buddhist} + \beta_6 \text{ jewish} \\
 & + \beta_7 \text{ other-christian} \\
 & + \beta_8 \text{ other-non-christian} + \beta_9 \text{ age} \\
 & + \beta_{10} \text{ gender} + \beta_{11} \text{ education} \\
 & + \beta_{12} \text{ income}
 \end{aligned}$$

A second regression model simultaneously includes the effect of oneness:

$$\begin{aligned}
 \text{Model 2: Life satisfaction} = & \beta_1 \text{ protestant} + \beta_2 \text{ muslim} \\
 & + \beta_3 \text{ hindu} + \beta_4 \text{ catholic} \\
 & + \beta_5 \text{ buddhist} + \beta_6 \text{ jewish} \\
 & + \beta_7 \text{ other-christian} \\
 & + \beta_8 \text{ other-non-christian} + \beta_9 \text{ age}
 \end{aligned}$$

$$\begin{aligned}
 & + \beta_{10} \text{ gender} + \beta_{11} \text{ education} \\
 & + \beta_{12} \text{ income}
 \end{aligned}$$

In Model 1, not all dummy variables for religious affiliation have a significant effect on life satisfaction. Only Muslim, Buddhist, and Jewish respondents have a significantly higher life satisfaction than the reference group of atheists. In Model 2, the variable oneness beliefs are added to the analysis. The adjusted  $R^2$  is significantly increased by adding the oneness beliefs variable. Further, oneness beliefs have a very strong positive effect on life satisfaction ( $\beta = .230, p < .000$ ), even rendering some of the previously insignificant or significantly positive effects of religious affiliation significantly negative. Hence, Hypothesis 2, proposing that oneness beliefs significantly enhance adaptation, that is, life satisfaction over and above religious affiliations is supported. Table 2 shows the regression results.

## Discussion

### Summary of Findings

The results of two large-scale empirical studies using nonstudent samples reveal that the oneness beliefs scale has good psy-

Table 2  
Regression Results Study 2

Life satisfaction	Model 1					Model 2				
	<i>b</i>	<i>SD</i>	$\beta$	<i>t</i>	<i>p</i> -value	<i>b</i>	<i>SD</i>	$\beta$	<i>t</i>	<i>p</i> -value
Constant	4.381	.030		145.257	.000	3.220	.037		87.343	.000
Religious affiliation										
Protestant	.006	.042	.001	.148	.882	<b>-.212</b>	<b>.041</b>	<b>-.023</b>	<b>-5.210</b>	<b>.000</b>
<b>Muslim</b>	<b>.140</b>	<b>.031</b>	<b>.021</b>	<b>4.572</b>	<b>.000</b>	<b>-.054</b>	<b>.030</b>	<b>-.008</b>	<b>-1.792</b>	<b>.073</b>
Hindu	-.080	.077	-.005	-1.033	.302	<b>-.218</b>	<b>.075</b>	<b>-.013</b>	<b>-2.903</b>	<b>.004</b>
Catholic	.016	.120	.001	.132	.895	-.118	.117	-.004	-1.011	.312
<b>Buddhist</b>	<b>.121</b>	<b>.016</b>	<b>.039</b>	<b>7.403</b>	<b>.000</b>	.018	.016	.006	1.106	.269
<b>Jewish</b>	<b>.145</b>	<b>.015</b>	<b>.051</b>	<b>9.431</b>	<b>.000</b>	<b>.051</b>	<b>.015</b>	<b>.018</b>	<b>3.378</b>	<b>.001</b>
Other Christian	-.058	.140	-.002	-.412	.681	-.151	.136	-.005	-1.105	.269
Other non-Christian	-.029	.028	-.005	-1.024	.306	<b>-.049</b>	<b>.028</b>	<b>-.008</b>	<b>-1.766</b>	<b>.077</b>
<b>Oneness beliefs</b>						<b>.230</b>	<b>.004</b>	<b>.231</b>	<b>52.034</b>	<b>.000</b>
<b>Controls</b>										
Age	.000	.000	-.011	-2.479	.013	-.001	.000	-.023	-5.179	.000
Gender	-.223	.014	-.074	-16.316	.000	-.162	.013	-.053	-12.099	.000
Education	.107	.007	.074	16.409	.000	.116	.006	.080	18.229	.000
Income	.103	.003	.179	39.293	.000	.099	.003	.171	38.506	.000
Corrected <i>R</i> <sup>2</sup>			.046					.097		

Note. Effects significant on 5% level are displayed in bold font.

chometric properties and correlates with related variables (empathy, social connectedness, and connectedness to nature) whereby being clearly discriminable from them. The two time point measures of oneness beliefs show a high intraindividual correlation ( $r = .673, p < .000$ ) that is an indicator for the time-invariance and stability of the personality factor (correlations between the repeated measurements of oneness, connectedness, and empathy are similar in size). Obviously oneness beliefs are more than a situation-specific feeling or mood. They rather seem to represent a general attitude toward life. Thus, Hypothesis 1, which assumed that oneness beliefs represent a time-invariant trait that is related to but at the same time clearly discriminable from empathy, connected to nature, and social connectedness is supported by the empirical evidence.

Additionally, the hypothesized positive effect of oneness beliefs on life satisfaction (Hypothesis 2) could be confirmed by applying a vector-autoregressive model to test for the directionality of the effect. In the model, the coefficients of the cross-lagged effects clearly indicate that the causal direction of the association between oneness beliefs and life satisfaction is in line with the assumptions derived from the literature: oneness beliefs are a significant determinant of life satisfaction over time, whereas there is no reversed effect of life satisfaction on oneness beliefs.

### Implications for Research

The two studies conducted in this article generate important implications for research. First, by developing a reliable and valid measurement instrument to capture oneness beliefs, the article contributes to research on individual difference factors on personality level. Oneness beliefs represent a time-invariant individual difference factor that has important consequences for the lives of the individuals as shown in the significant effects on life satisfaction. Second, by bringing together the conceptual ideas of manifold research streams this article has an integrative function, pointing to the common core of discussions concerning empathy, connectedness, and oneness experiences. Third, this study broad-

ens the knowledge on the psychology of religion, revealing not only the average level of oneness beliefs in the different religious groups but also exploring the effect of these beliefs on life satisfaction while controlling for the effect of religious affiliation in a very large sample, including respondents from various religious backgrounds. Fourth, but not last, by revealing the effects that oneness beliefs have on life satisfaction and especially by validating the direction of the effect, this article contributes to existing research on life satisfaction.

### Avenues for Future Research

The study at hand also opens the stage for multiple new research questions to be addressed in future research. For instance, future research could explore the interrelationships between the related constructs discussed in this study in more depth. Are oneness beliefs an antecedent of empathy and connectedness? And, importantly, do they have developmental origins? Further, this study relied on self-reported survey data. It would be of high interest to test whether individual differences in oneness beliefs predict differences in real adaptation, for example, coping with stressful life events. For this purpose, future studies could use combinations of surveys and field or lab experiments. Finally, the literature review in this article has summarized the related research regarding the situation-specific versus time-invariant nature of the phenomena. Having established oneness beliefs as a time-invariant individual difference factor it would be fruitful to establish how it relates to situation-specific phenomena such as situational oneness-experiences or mystical experiences. Are persons scoring high on oneness beliefs more prone to having situational oneness experiences?

Another starting point for future research is to gain a deeper understanding of the psychological processes that link oneness beliefs to life satisfaction (i.e., mediators of the link). A considerable amount of research has explored the effect of coping strategies on life satisfaction and especially the effect of religious coping. It would be very interesting to investigate whether persons scoring high on oneness beliefs have different methods of coping with life events. For instance,

it has been noted that religion promotes reinterpretations of negative events through a sacred lens (Pargament, 1997; Pargament, Falb, Ano, & Wachholtz, 2013). More specifically, a major life crisis may be viewed as an opportunity for spiritual growth. It may well be possible that persons scoring high on oneness beliefs engage in very different mechanisms of coping as well as attributions of responsibility and blame. A belief that everything is essentially one could, for instance, reduce the intensity of duality perceptions necessary for attributions of blame to others. This could, in turn, lead individuals to adopt more responsibility for their own fate. It would be very fruitful to study these coping processes taking into account their interrelationship with mindfulness as a field of study that has received considerable academic attentions lately (for a review see Levenson & Aldwin, 2013).

### Limitations

As already mentioned in the text, the Garfield et al. (2014) scale that measured oneness beliefs in a more elaborate way than this article had not yet been published at the time when the data for this article was collected. Thus, it is a central limitation of this article that it is unclear whether the same results would have been observed using the Garfield et al. (2014) measure. It would be very fruitful for future research to replicate the study at hand using the alternative measure.

Further, although the correlation between the oneness scale and the social desirability scale was not stronger than the correlations between oneness and other related constructs it has to be mentioned that it was still considerably strong. This could indicate common method bias that of course has to be taken into account when interpreting the findings.

### Conclusion

The feeling of being at one with a divine principle, life, the world, other persons, or even activities has been discussed in various religious traditions but also in a wide variety of scientific research streams from different disciplines. It was the central goal of this article to join these related approaches in the literature by empirically capturing the notion of oneness beliefs as a time-invariant individual character trait and analyze its consequences. By exploring oneness beliefs as a time-invariant personality trait, the study on hand links the existing research streams on connectedness, empathy, and oneness fantasies or experiences pointing to their common core. The empirical studies conducted in this article establish a valid and reliable measurement instrument and reveal robust adaptation-enhancing effects of oneness beliefs, thereby contributing to the literature on the psychology of religion and spirituality.

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Received August 5, 2015

Revision received December 30, 2018

Accepted February 1, 2019 ■