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Positive Emotions and Self-transcendence

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This chapter intends to examine existing relationships between positive emotional states, self-transcendence, spirituality, and religion. It will be divided into three parts. The first two parts will document proper conditions to dissolve rigid boundaries between the self and the outer world, and thus to favor the emergence of self-transcendence. The first part will focus on the effect of positive emotional states at an intra- and an inter-individual level. The second part will examine positive emotions at a collective level through the study of rituals. In particular, we will scrutinize human practices such as movement synchronization and music often observed in social and religious rituals and known to spread positive emotions and enhance feelings of rapport. In the third part we will examine the role of positive emotions in religion/spirituality, as it is a manner in which people, throughout history and across many societies, have been expressing their aspirations toward self-transcendence. In this regard, a rationale for taking into account the properties of specific positive emotions will be proposed and a family of positive emotions called self-transcendent will be at the center of our attention. Research concerning both directions of causality, i.e. positive emotions as consequences and as possible antecedents of religion and spirituality, will be presented.

Positive Emotions and Transcendence of the Self

Self-transcendence is the experience of seeing oneself and the world in a way that is not hindered by the boundaries of one's ego identity (Erikson, 1982). It involves a heightened sense of meaning and connectedness with others and with the world (Frankl, 2000). Hereafter, we will first concentrate on observations suggesting that positive emotional states create an opened and broadened mindset favorable to self-transcendence. We will then see that these effects persist and expand beyond the sole individual through the *sharing* of positive emotions.

Positive Emotion and Self-Transcendence Are Intertwined

Carver and Scheier (1990) posited that for positive affect to occur, the current action should bring the person closer to an active goal. Yet, in their view, positive affect will hardly occur if the progress toward the goal simply conforms to what was anticipated. The unexpectedness of the positive outcome, the effort spent in achieving it, and the uncertainty that preceded it, are all predictors of the intensity and duration of the emotion (Frijda, 1986). Importantly, positive emotions begin with curiosity and interest. These responses develop when detected novelties remain within acceptable limits (Berlyne, 1960). Positive emotions encourage individuals to enhance their contacts with the new element, to explore it and to work out an appropriate cognitive scheme. Such an operation leads to an extension of the person's potential. New meanings are acquired and connections with the outer world are broadened. In sum, positive emotions do sustain a cognitive-behavioral process conducive to self-transcendence.

Isen (2000) reviewed data showing that positive emotions entail important cognitive and social effects. As for cognitive effects, compared to individuals in a negative or neutral state, those in a positive emotional state are found to be more creative, more open to surrounding information and more inclined to exploration and discovery. They also perform better in tasks requiring synthesis and in problem resolution. As for social effects, individuals in a positive emotional state adopt the perspective of others more than those in a negative state. They are also more sociable, more cooperative, more generous, more inclined to social responsibility, and more apt to negotiation.

Such observations led Frederickson (1998, 2001) to develop the "broaden-and-build theory" of positive emotions: the latter broaden people's momentary thought–action repertoires and build their enduring personal resources over time. Abundant data supported the broadening effect. Positive emotions induce holistic attention (Fredrickson & Branigan, 2005), greater

attention to peripheral stimuli (Wadlinger & Isaacowitz, 2006), and feelings of oneness and enlargement of the in-group (Johnson & Fredrickson, 2005; Waugh & Fredrickson, 2006). In sum, positive emotions are intertwined with experiences of growth and they stimulate both cognitive expansion and social communion. They thus open the way to further self-transcendence.

An extreme form of positive emotion is found in "states of flow" that one might develop when acting in a well-mastered field. When action takes an optimal course, powerful positive emotions can be experienced. This happens when the various systems at work—active cognitions, action in progress, and related information—are temporarily aligned (Csikszentmihalyi, 1990). Flow is characterized by strong concentration, feeling of control, euphoria and transcendence. Tasks best suited to induce flow are those in which people are completely immersed in the experience, involved in a different reality, pushed at higher levels of performance, thus becoming more complex. In addition to play and games, common triggers include: creativity and research at the frontier; transcendental, peak, or religious experiences; collective ritual; and Zen, Yoga, and other meditative states. Flow shares many qualities with peak experiences including absorption, involvement, joy, and a sense of power (Privette, 1983). In these extreme forms of positive experiences, the overlap of positive affect, growth or expansion of the individual, and self-transcendence becomes maximal.

In conclusion, even when examining solely the intra-individual level, positive emotions can hardly be dissociated from self-transcendence. Thus, curiosity and interest encourage individuals to enhance their contacts with new facets of their environment and to expand their potential. Positive emotions in general are linked with broadened thought-action repertoires and with openness to other people and to the world. Optimal states result from a temporary alignment

of the individual's thought-action systems and the outer world, and they involve the experience of both joy and oneness.

Social Sharing of Emotions

Contrary to popular belief, emotions are not limited to diffuse feelings that people experienced in intimate facets of the phenomenal world and bound to remain private. The broadening effect of positive emotions is also found at the interpersonal level through the sharing of emotions. People who experience an emotion talk about it and, like any emotion, positive emotions are thus socially shared, which further dampens the boundaries between the self and the others. The social sharing of emotion develops in 80 to 95% of emotional episodes (for review, Rimé, 2009). Positive and negative emotional events are shared at comparable frequency. More intense emotions are shared more repetitively and for a longer period. Listeners engage a *secondary* sharing in nearly 80% of shared episodes (Christophe & Rimé, 1997) and a *tertiary* sharing occurred for two thirds of secondary listeners (Christophe, 1997). Emotional episodes thus spread across social networks (Harber & Cohen, 2005).

People's willingness to talk about their emotional experiences suggests important benefits. Strong interest and empathetic emotional responding were observed in listeners (Christophe & Rimé, 1997). Sharing an emotion with a supportive listener provides a feeling of rapport (Nils & Rimé, 2012; Zech & Rimé, 2005). Self-disclosure of emotion emerged as a more important predictor of intimacy than did self-disclosure of facts and information (Laurenceau, Feldman-Barrett, & Pietromonaco, 1998). In sum, the social sharing of emotion has the power to bring sender and receiver closer together.

The social bonding effect of emotion sharing is particularly strong and now well documented for positive emotions. Their sharing activates pleasurable emotional images and feelings and thus generates immediate benefits. Positive emotions are opportunities on which to

"capitalize", or achieve benefits by letting others know about the event (Langston, 1994). Communicating positive events is indeed associated with an enhancement of positive affect largely exceeding benefits due to the valence of the positive events themselves. When one's partner typically responds enthusiastically to capitalization, relationship well being as assessed by intimacy or by daily marital satisfaction is higher (Gable, Reis, Impett, & Asher, 2004). In consistency with Fredrickson's (1998, 2001) broaden-and-build functional theory of positive emotions, capitalization attempts and the responses to them build relationship resources. The resources take the form of increased intimacy, satisfaction, love, and commitment (Gable, Gonzaga, & Strachman, 2006). Thus, sharing positive emotions does not only augment positive affect at the intrapersonal level, it also enhances bonds in interpersonal relationships.

The positive emotions of a single individual can stimulate analogous states among people around and thus elicit emotional fusion or communion. This typically happens in "triumph" displayed by sport winners when they meet success or victory. Signals of triumph generally consist of: (1) facial and bodily expression of anger manifesting that major obstacles were transcended, (2) expansion gestures—arm rising, jumping, shouting—reflecting the feeling of growth and enhancing the winner's social visibility, and (3) expressive manifestations openly addressed to the audience, with smiles, laughter, cries, calls, body contacts, hugs, and sketched celebration. The latter invite spectators to join the winner and/or to come closer to one another. These manifestations elicit empathetic positive emotional states among witnesses of the victorious action. Festivities start and indicate the consolidation of group members' bonds thus evidencing the strong impact a victory has upon social integration and group cohesion.

In conclusion, the self-transcending effect of positive emotions does not only occur at an intra-personal level, but also at an inter-personal, and more largely, at a collective level. Just like any emotion, positive ones push people to share their experience and connect with others.

Sharing positive experiences builds additional resources that are important both for the sender and the listener. The sharing process propagates at very high speeds across a community, placing positive emotions at the heart of a collective phenomenon. Though both positive and negative emotional states are shared and propagated, positive ones are specific in that they are intertwined with the broaden-and-build and self-transcendence effects described earlier in this chapter.

Collective Rituals and Self-transcendence

Collective rituals and, among them, religious rituals are particular settings in which the sharing of positive emotions can be intense. Ritual indoctrination and practice also create believers: without participation in rituals, religious beliefs lack both emotional salience and motivational force (Sosis, 2003). In this context, we will examine music, entrainment, and synchronization in more detail as they are powerful means to induce positive emotions and blur the self-other distinction.

Collective Rituals

The emotional, social, and cognitive effects of collective rituals are described in Durkheim's (1912) classic model of the socially functional nature of rituals. Though primarily focused on religions, his analysis addressed any collective manifestations. Collective rituals generally involve the presence of the group's symbols (e.g., flags, emblems) and collective expressions (singing, yelling, telling words or sentences, shared movements, music and dance) that aptly awaken the latent social dimension of every human being. Shared beliefs and collective representations are set at the foreground, thus consolidating participants' faith in their cultural beliefs. Particularly central to Durkheim is that individuals' consciousnesses echo one another in such a context. Thus, any expression of emotions among participants vividly elicits analogous feelings in people around them so that a reciprocal stimulation of emotion follows, leading to an

"emotional effervescence". Such a circular process ends up in a collective state of emotional

communion in which participants experience unity and similarity. Salience of participants' self is

lowered and their collective identity is enhanced. This is how, according to Durkheim, social

rituals have the capacity to boost participants' feelings of group belonging and of social

integration. Emotions elicited during a religious or secular ritual have effects on the collective

level that largely exceed the effects on the individual level. Rituals indeed entail holistic effects

upon participants. They end up globally dissolving the boundaries separating individuals. They

unite them all by substituting their group identity for their preexisting self-identity.

Music and Entrainment

Music is inseparable from religious rituals (Alcorta & Sosis, 2005). Among the African

Igbo for example, there is a single word to say religion and music (Becker, 2001). Music is a

consistent feature of contemporary religious services in the U.S. (Chaves, Konieczny, Beyerlein,

& Barman, 1999) and in ritually constrained religions (Atran, 2002). Cross-culturally, happiness

is the most frequently reported emotion evoked by music in religious rituals. When intensified

through the social aspects of the ritual, happiness can reach ecstasy (Becker, 2001). Music may

therefore provide the catalyst for a strong emotional response that may lead to trance or a similar

sense of transcendence in religious practice (Penman & Becker, 2009). For example, in

Pentecostal churches, music is used as a facilitator of religious experience (Miller & Strongman,

2002). It even emerged as the single most important elicitor of such an experience (Greeley,

1975).

Alcorta and Sosis (2005) stressed that music acts as a "rhythmic driver". Music impacts

autonomic functions and synchronizes "internal biophysiological oscillators to external auditory

rhythms" (Scherer & Zentner, 2001, p. 372) and amplifies this "coupling effect" by

synchronizing individual body rhythms within a group. Levenson (2003) showed that

synchronized autonomic functions, including pulse rate, heart contractility, and skin conductance, are positively and significantly associated with measures of empathy. Music in religious ritual promotes such empathy. According to Alcorta and Sosis (2005), the capacity of music to entrain autonomic states and evoke congruent emotions in listeners provides the basis for creating and synchronizing motivational states in ritual participants and for evoking communal emotions among them. In this regard, effects of music resemble those of flow experiences examined above in that they favor an alignment of internal states and external conditions.

Anthropologists and psychiatrists have long observed how the rhythmic behavioral activities induced by music can lead to altered states of consciousness, through which mutual trust among members of societies is engendered. Music has the power to entrain others and engage them in movement. Most of the contexts in which music occurs are not only active but also participatory, involving overt active engagement of persons in musical activities of the group (Clayton, Sager, & Will, 2004; Cross & Morley, 2008). This entrainment effect of music is an important mechanism since social rituals may involve a large number of participants. Human beings share with many other species the double ability to detect rhythmic signals that are produced in nature (e.g., day/night cycles, lapping waves on the shore, approaching footsteps) and to produce rhythmic output (e.g., physical locomotion, respiration). Once these two abilities are coordinated, motor output can be adjusted on rhythmic input, and the capacity for entrainment emerges (Philips-Silver, Aktipis, & Bryant, 2010; Todd, Lee, & O'Boyle, 2002). Individuals indeed manifest spontaneous coordination resulting from rhythmic responsiveness to a perceived rhythmic signal (Philips-Silver et al., 2010).

Because of its entrainment effect, music can mobilize joint intentionality and thus arouse a feeling of oneness among performers. Dissanayake (2008) argued that musicians use tones, chords, motifs, rhythms, timbres, and so forth in order to attract attention and hold interest as well

as to create, sustain, and mold emotion. Participation with others in such sequences of exaggerated and formalized kinetic, visual, and vocal behaviors can engender and sustain affinitive emotion and accord among members of a group. Freeman (2000) argued that music together with dance have co-evolved biologically and culturally to serve as a technology of social bonding. For example, joint music making increases spontaneous cooperative and helpful behavior already among 4-year old children (Kirschner & Tomasello, 2010).

When a collective activity is experienced as coordinated, it engenders a strong feeling of group identity with the communication of pleasure and positive emotions (Cross & Morley, 2008). Music can transmit emotional information to many people at once, equalizing the emotional state of the group and thus creating bonding effects among group members (Roederer, 1984).

Movement Synchronization

Beyond music, religious rituals are also characterized by gestures and behaviours performed all together. Human beings can coordinate their movements with one another quickly and with little effort. Dyads synchronize their movements when they walk side by side, rock in chairs side by side, swing pendulums together, tap fingers jointly, or are immersed in conversation (for review, see Konvalinka, Vuust, Roepstorff, & Frith, 2010). Graham and Haidt (2010) speculated that acting in synchrony triggers a kind of "off switch" for self-representations in the brain, allowing for a self-transcendent experience. Across many studies, movement synchrony was found to lessen self's boundaries, to enhance rapport, cooperation, and prosociality, and to favor the emergence of a social unit (Chartrand & Bargh, 1999; van Baaren, Holland, Kawakami, & van Knippenberg, 2004). Across three experiments, Wiltermuth and Heath (2009) found that compared to people in control conditions, those who acted in synchrony with others (walking around campus in groups of three; listening to music in groups of three

while performing a task requiring some degree of synchrony) cooperated more in subsequent group economic exercises, even in situations requiring personal sacrifice. Their results also showed that bodily movements are not a precondition to such effects as they were found under simple synchronization achieved through singing.

Paladino, Mazzurega, Pavani, and Schubert (2010) recently demonstrated that synchronous movement can actually blur self-other boundaries. In a study using synchronous multisensory stimulation, an experimenter brushed participant's cheeks as the latter watched a stranger's cheek being brushed in the same way, either in synchrony or in asynchrony. Compared to participants exposed to asynchronous stimulation, those who received synchronous stimulation showed more merging of self and the other on a set of indicators involving body sensations, perception of face resemblance, judgment of the inner state of the other, closeness felt toward the other, and conformity behavior. The authors concluded that synchronous movement both implements and communicates a communal relationship that is characterized by feelings of sameness and unity. Acting in synchrony can thus easily lessen the self's boundaries and thus elicit the cognitive phenomenon of self-other overlap which is typically experienced with close others and in-group members. Movement synchrony thus opens up the self to experiences of self-transcendence in the form of feelings of oneness and social fusion.

Positive Emotions and Religion/Spirituality

As described above, positive emotions push people to consider the world and others in a more holistic, flexible, and integrative way. By doing this, they allow for self-transcendence. Through their sharing, they unexpectedly open up to others and benefit everyone in the chain. This social aspect of positive emotions also takes place in a very central motivational part of religion: collective rituals. Moreover, music and behavioral synchrony present in rituals have been shown to dissolve the rigid boundaries between the self and the others. We will now take a

step further by examining not the self-others overlap increased by positive emotions, but whether this sense of heightened connectedness to others could lead to the *belief in* a transcendent being heading this collectivity.

Religion/spirituality is one particular way through which, historically and widely across many societies, people have been expressing their aspirations toward self-transcendence by assuming the existence of a being transcendental to human reality. Religion and spirituality are multidimensional constructs that have been variously defined. Even if there is no consensus among researchers, they share different elements (see Zinnbauer & Pargament, 2005). Religion and spirituality can be defined as (1) one's *personal* affirmation of an external transcendent force and (2) one's *relationship to a higher entity*. Additionally, they typically imply (3) *belief in* a life infused with *meaning and purpose* and (4) *belief in* relatedness and *interconnectedness* with the world and living beings. In the case of religion, the higher entity refers to a denominational God, and many researchers add a supplementary element of definition referring to the institutionalized aspect of religion: one's *commitment to practices* characteristic of a particular tradition.

Several authors, philosophers, and theologians, such as Jonathan Edwards (1746/1959), Schleiermacher (1799), and Otto (1917/1958) have recognized the core importance of emotions, including positive emotions, in religion. The presence of positive emotions is also confirmed in religious texts such as the Old Testament, which provides to the readers descriptions of joyous feasts, experiences of various positive emotions, and even invitation to experience them (Anderson, 1991; Van Cappellen, 2011, 2012). As we have seen, positive emotions are also very present in religious rituals (Becker, 2001). An intriguing question, which will be addressed in the following sections, is what role might positive emotions play regarding religion and spirituality? In this regard, we will first present a group of positive emotions that could be particularly relevant for the religious and spiritual domains: the self-transcendent positive emotions.

Introduction to the Self-transcendent Positive Emotions

When studying the interplay between positive emotions and religion/spirituality, one intriguing question is whether one should consider general positive emotionality or address discrete positive emotions. Authors have claimed that just like for negative emotions, positive emotions do not all have the same appraisals and functions (Griskevicius, Shiota, & Nowlis, 2010; Sauter, 2010). This specificity is therefore important to take into account when studying the effects of positive emotions.

One meaningful way of taking into account different types of positive emotions is a model from Haidt (2003) that distinguishes positive emotions called "moral" or "self-transcendent". These emotions are *elevation*, *compassion*, *admiration*, *gratitude*, *love*, and *awe*. Haidt (2003) proposed a preliminary definition of self-transcendent emotions as "those emotions that are linked to the interests or welfare either of society as a whole or at least of persons other than the judge or agent" (p. 853). Therefore, emotions such as *amusement*, *joy*, or *pride*, are rather self-relevant.

Two characteristics help to identify self-transcendent emotions. The first relates to the elicitors, which are disinterested. The stimulus causing these emotions is not directly related to the person and to his/her direct interests. A simple picture of an unknown child who suffers for example, can trigger the emotion of compassion. As a potential consequence, self-transcendent positive emotions are more stimulus-focused and directed toward the environment of the self than self-focused. This has been shown for the emotion of *awe,* for example in comparison with amusement and pride (Shiota, Keltner, & Mossman, 2007). However, an emotion such as *joy* occurs when something good happens to the self or to someone related to the self (Haidt, 2003). It is the same for *pride,* which is typically a self-conscious and self-oriented emotion (Tracy & Robins, 2007). The more an emotion is elicited by disinterested stimuli, the more it can be

considered as a self-transcendent emotion. Importantly indeed, that one emotion is more on the self-transcendent or the self-relevant side is more a question of continuum than of clear limitation.

The second characteristic of self-transcendent emotions concerns their activation of care for others. The latter emotions push the individual to engage in actions that may benefit others or society. For example, induction of elevation (Schnall, Roper, & Fessler, 2010), gratitude (DeSteno, Bartlett, Baumann, Williams, & Dickens, 2010), and awe (Rudd, Vohs, & Aaker, in press) have been shown to increase volunteer time and helping behavior even toward strangers. According to Haidt's (2003) model, self-relevant emotions of amusement, joy, or pride, may activate a positive focus on others to a certain extent, but self-transcendent positive emotions more strongly activate a self-disinterested behavior of care.

Saroglou, Buxant, and Tilquin (2008) proposed that self-transcendent emotions, which imply the "experience of marvel, wonder, appreciation, or respect for something that is perceived as larger, higher or more important than the self, or something that is beautiful, pure, or implying some mystery" (p. 166-167), might be particularly relevant when one studies the interplay between positive emotions and religion or spirituality. We have (Van Cappellen, Saroglou, Iweins, Piovesana, & Fredrickson, in press) extended that claim by arguing that the core appraisals of self-transcendent emotions are related to important characteristics of religion and spirituality. Indeed, when self-transcendent positive emotions occur, the event is appraised as positive, self-disinterested/other focused, and praiseworthy. In other words, witnessing greater good or beauty outside the self elicits a self-transcendent emotion. Importantly, according to the Appraisal Tendency framework, such cognitive appraisals persist beyond the eliciting situation and predispose the individual to appraise subsequent, unrelated situations in line with those appraisals. Therefore, self-transcendent positive emotions might be particularly apt to elicit

cognitions conducing to spiritual/religious belief as defined above. Importantly, self-transcendent emotions are not religious or sacred emotions per se. They can be experienced as fully secular and by all people, independently of their religiousness.

We will now review the empirical findings related to the study of positive emotions and religion/spirituality, distinguishing between the two directions of relations that have been investigated in past research: religion/spirituality as leading to positive emotions, and positive emotions as influencing religion/spirituality. We will pay particular attention to the types of positive emotions considered, i.e. whether they are more self-transcendent or self-relevant.

Religion/spirituality as Leading to Positive Emotions

Several correlational studies show a positive association of religiosity/spirituality with positive emotions (for a review see Smith, Ortiz, Wiggins, Bernard, & Dalen, 2012). Concerning more specific positive emotions, religiosity and spirituality were found to be modestly but consistently positively correlated with dispositional *gratitude* as well as with a daily report of feeling grateful (Emmons & Kneetzel, 2005; McCullough, Emmons, & Tsang, 2002). Kim-Prieto and Diener (2009) showed that Christians more frequently experience the emotion of *love* and also find love more desirable in comparison to the other major religions. In addition, we can notice that in that study the positive emotions of happiness, love, and gratitude were felt with greater frequency and found to be more desirable by Christians than that of pride or negative emotions. In sum, even if not directly testing the specific causal direction, i.e. religion/spirituality as leading to positive emotions, the existing correlational studies have been interpreted as showing that religion/spirituality increase positive emotions.

More recently, research has shown that religious and spiritual practices do indeed increase positive emotions. Using longitudinal designs, meditation has been shown to increase positive emotions (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008) and prayer to increase gratitude

(Lambert, Fincham, Braithwaite, Graham, & Beach 2009). Interestingly, manipulating religious salience (asking participants to indicate their religious affiliation at the beginning of the study) makes Christian participants reported to feel more love than those whose religious identity has not been activated (Kim-Prieto & Diener, 2009).

Even if previous research did not explicitly take into account the difference between self-transcendent vs. self-relevant positive emotions, results show a clearer affinity between religion/spirituality and self-transcendent emotions such as love or gratitude than with self-relevant emotions such as amusement or pride. Joy and happiness are also felt with higher frequency by religious and spiritual people maybe because these emotions reflect a general positive state, rather than discrete emotions (Herring, Burleson, Roberts, & Devine, 2011).

Positive Emotions as Influencing Religion and Spirituality

In this section we will report recent existing research that has investigated the other side of the picture, i.e. positive emotions influencing religious and spiritual beliefs, people, and related behaviors and cognitions. The first question addresses whether positive emotions may be an *antecedent* of religious or spiritual beliefs. The second question addresses the benefits of feeling such positive emotions for religious/spiritual people. In addition, concerning these two questions, we will examine whether the effects found are driven by self-transcendent positive emotions and not by self-relevant emotions.

Positive emotions and openness to spirituality and religion.

In previous research on the emotional antecedents of religiosity and spirituality, mainly negative emotions and negative experiences have been investigated. Numerous cross-sectional, longitudinal, and experimental evidence show that religiousness and/or spirituality increases following negative experiences (Spilka, Hood, Hunsberger, & Gorsuch, 2003) such as socioeconomic distress (e.g., Wimberley, 1984), the death of a loved one (e.g., Michael,

Crowether, Schmid, & Allen, 2003), and difficult relationships with significant others, in either adulthood or childhood (Kirkpatrick, 2005). Religion is therefore mostly thought to serve as a compensatory function for various negative experiences (see also Burris & Petrican, Chapter 5, this volume).

Nevertheless, is religion/spirituality only a matter of previous vulnerability overcome by positivity and meaning in life? Isn't it possible that positive emotions and experiences may also push people to believe in transcendence?

To our knowledge, the first experimental evidence comes from Saroglou et al. (2008). These authors addressed the question of whether feeling self-transcendent positive emotions could make people more religious and more spiritual. In two experiments using the same design, participants were randomly assigned to one out of four conditions implying emotional inductions: two self-transcendent positive emotions (awe of nature or awe at childbirth), one self-relevant positive emotion (amusement), or no specific positive or negative emotion (control condition). The self-transcendent emotion of awe corresponds to a feeling of wonder experienced by the self when facing something vaster, greater, beyond current understanding (Keltner & Haidt, 2003). After the emotional induction, participants completed measures of religiousness (Saroglou et al., 2008) and spirituality (Piedmont's, 1999, Spiritual Transcendence Scale). Results showed that participants who watched the videos inducing awe at childbirth and awe of nature reported to be more religious and more spiritual than participants who watched the control video. They were also more spiritual than participants who watched the humor video. Awe, a self-transcendent positive emotion, induced in the lab, thus made people more spiritual. This was not the case with humor/amusement, a self-relevant positive emotion.

Are the findings of these two studies specific to the emotion of awe or can they be generalized to other self-transcendent positive emotions? In two subsequent studies, Van

Cappellen et al. (in press) extended that previous research by investigating the impact of two other self-transcendent positive emotions, i.e. elevation (Study 1 and 2) and admiration (Study 2), whose relations to religion and spirituality are less obvious and less direct than the one of awe. Elevation corresponds to the emotional response to human exemplars of kindness and virtue and admiration is produced by exemplars of talent and skill (Algoe & Haidt, 2009). These emotions were again compared with amusement and neutral conditions.

Two other objectives were also pursued. First, the authors tested whether the impact of positive emotions on spirituality constitutes a totally positive process by investigating changes in meaning in life (Study 1) and positive worldviews (Study 2). Second, in Study 1, the authors looked for a possible moderation by previous religiousness, or to put it in different words, whether the effect of self-transcendent positive emotions on spirituality occurs for all participants or occurs more for the more or less religious people.

Results showed that induction of self-transcendent emotions of elevation (through a video clip and a recall task) and admiration (through a video-clip) made participants more spiritual than in the control condition. This was not the case for the self-relevant (amusement) emotion. The basic belief in the benevolence of others and the world and finding meaning in life turned out to be two significant mediators of this effect. In Study 2, where authors have also assessed religiosity, results were in the same direction, although not significant. Study 1 also revealed a significant moderation by personal religiosity, as measured prior to the experiment: the effect of elevation on spirituality held for the less religious participants. Thus, being religious is not a requirement for a self-transcendent emotion to increase spirituality; even non or less religious people endorse a more spiritual belief after experiencing a self-transcendent positive emotion. For the highly religious participants, a ceiling effect may be responsible for the lack of results,

meaning that these participants may have higher scores on spirituality that cannot be further increased when experiencing a self-transcendent positive emotion.

Thus, across four different studies (Saroglou et al., 2008; and Van Cappellen et al., 2012) using different methodologies to induce positive emotions and using different samples in ethnicity and age, the induction of various self-transcendent positive emotions (awe at childbirth, awe of nature, elevation, and admiration) made people endorse more a spiritual belief. The effect of self-transcendent emotions on spirituality was partially explained by two positive and "secular", not religious/spiritual, mechanisms: belief that there is meaning in life and belief in benevolence of others and the world. In sum, secular positive emotions, elicited by non-religious stimuli and experienced in nonreligious contexts, can, via their particular effects, open people up to a certain belief in transcendence external to humans.

Results for religiosity were less clear-cut. One explanation for this is that the (European) countries where the experiments were conducted are secularized and that participants tended to score low on religiosity. Therefore, it may be that changes toward higher religiousness (attachment to religious beliefs, practices, and attitudes in reference to a religious institution) presuppose more effort, motivation, and engagement than changes toward higher spirituality (feeling connected with a sacred external transcendence).

Pursuing that work, Van Cappellen and Saroglou (2012) investigated through two additional studies whether self-transcendent positive emotions provide a facilitative context for religious and spiritual people to express relevant behaviors and feelings: one's propensity for spiritual behavior and feelings of closeness with others.

In Study 1, participants were randomly assigned to one of three conditions: induction (through a recall task) of awe, pride, or no emotion in particular (control condition). Then, willingness to visit Tibet (a spiritual destination) and willingness to visit Haiti (a rather hedonistic

destination) were assessed. Finally, religiousness and spirituality were also assessed. Results showed that when awe was induced, religious and spiritual people were more willing to visit Tibet but not Haiti, in comparison to an emotionally neutral control condition. This effect did not occur after the elicitation of pride, a self-relevant positive emotion. In Study 2, the same design was used. The emotions induced (as in Saroglou et al., 2008) were either awe of nature (rather impersonal), awe at childbirth (interpersonal), or amusement. Feelings of oneness with friends and with people in general were assessed afterwards using modified versions of the Inclusion of Other in the Self scale (Aron, Aron, & Smollam, 1992). Results showed again that, comparatively to a neutral (no emotion induction) condition, when awe of nature and awe at childbirth were induced, religious and spiritual people expressed, respectively, strong feelings of oneness with people in general and with friends. However, induction of a self-relevant positive emotion, amusement, had no such effect. Thus, in these two studies, self-transcendent positive emotions were shown to make participants scoring high on religiosity and spirituality to feel and behave more in accordance to their beliefs. Again, for both studies, the results found were not independent of participants' level of religiosity and spirituality.

In sum, across the above-described six studies, self-transcendent positive emotions were shown to (1) increase spirituality through positive, cognitive, and socio-affective mechanisms, and especially among less religious people, and (2) provide a facilitative context to express spirituality-related feelings and behaviors among religious and spiritual people. The use of emotional induction has allowed the authors to test and provide first empirical evidence in favor of a specific causal direction, i.e. from positive emotions to religious and spiritual beliefs.

Benefits of positive emotions for religious people.

As outlined in a prior section of the present chapter, positive emotions are very present in religious rituals and promoted by religious and spiritual practices. One important remaining

question is what are the consequences for religious and spiritual people feeling such positive

emotions. More specifically, in the next studies to be presented, self-transcendent positive

emotions have been investigated as possible explanatory mechanisms of two positive and well-

studied correlates of religion and spirituality, i.e. well-being (see Hayward & Krause, Chapter 12,

this volume) and prosociality (see Preston, Solomon, & Ritter, Chapter 7, this volume).

A plethora of empirical evidence supports that religion fosters well-being and that

religious attendance more specifically might be a particularly strong predictor (Koenig, King, &

Carson, 2012). Different mechanisms have been studied to understand how religion affects well-

being (see Hackney & Sanders, 2003). However, positive emotions have been neglected in

empirical research. And yet positive emotions can be triggered by religion and are also known to

promote well-being (Cohn, Fredrickson, Brown, Mikels, & Conway, 2009). In a survey about the

mechanisms by which religious attendance might benefit well-being, Van Cappellen, Saroglou,

and Toth (2011) investigated positive emotions. A total of 548 participants completed a

questionnaire distributed in 15 Belgian Catholic parishes on the same Sunday. The questionnaire

was composed of measures of religiosity, well-being, and a list of positive emotions felt during

the Mass. Results showed first that, as found in previous research, all religious measures (and

also a measure of spirituality) were positively related to well-being, i.e. life satisfaction and

meaning in life. Second, and more importantly, positive emotions were one of the significant

mediators of this relation. When the positive emotions were spitted into two groups, self-

transcendent and self-relevant emotions, the meditational analyses confirmed the expectations:

only self-transcendent positive emotions emerged as the active ingredient in the religion-well-

being relation. In conclusion, the increase in positive emotions during religious rituals is not to be

neglected as it is one of the mechanisms by which religious attendance benefits the attendees'

well-being.

In a rather similar vein, Van Cappellen, Saroglou, and Cara (2012) investigated, in another study, whether positive emotions felt during regular religious rituals (Catholic Mass) could boost religious people's prosociality. The links between religion and prosociality have a prolific history of research (see for reviews, Preston et al., Chapter 7, this volume; Saroglou, 2013). An intriguing study has shown that religious people are more prosocial than non-religious people, but only on Sundays (Malhotra, 2010). Van Cappellen and colleagues (2012) hypothesized that some self-transcendent positive emotions activated during the Mass may explain, at least in part, Sunday's prosociality. As described earlier in this chapter, self-transcendent positive emotions are characterized by a high concern for others, which can ultimately lead to prosociality.

To test the hypothesis that self-transcendent emotions constitute one of the mechanisms by which religious attendance increases prosociality, the authors collected 196 questionnaires distributed at the end of the Sunday Mass to church-goers from three Belgian Catholic parishes. The questionnaire was composed of measures of religiosity, a list of positive and negative emotions felt during the Mass, and a measure of prosociality, i.e. the spontaneous tendency for sharing a monetary prize with others (participants mainly mentioned kin members and friends; or distant targets, e.g. donations to charity).

Intrinsic religiosity was found to be positively related to spontaneous sharing with others and, more specifically, to donations to charity. Self-transcendent positive emotions of awe, respect, and love were both related to donations to charity and to intrinsic religiosity. This was not the case for any of the self-relevant positive emotions, nor of the negative emotions (such as guilt or fear). Mediational analyses revealed that intrinsic religiosity mediated the effect of awe, respect, and love on donations to charity. This shows that self-transcendent positive emotions felt

during the Sunday Mass promote willingness to donate to charity through the enhancement of religiosity.

The studies presented in this last section were correlational and cannot address issues of causality. However, they show that it is important to consider the role of self-transcendent positive emotions in the link of religion with broader related concepts such as well-being and prosociality. Positive emotions triggered during the religious ritual are not inconsequential; they may have important positive consequences in the life of the attendees.

We conclude, following Van Cappellen et al. (in press), that there is a reciprocal causality between positive emotions and spirituality. Previous and very recent research provide evidence for the two directions of causality: one from self-transcendent positive emotions to religion/spirituality and another from religion/spirituality to positive emotions. Taking a broader perspective, we suspect that religion/spirituality can be part of two very different trajectories. The first is a coping trajectory that goes from negative emotions to positive emotions and well-being through religiousness and spirituality. The second is a positive growth trajectory: an upward spiral where positive emotions make people see the world and others as more benevolent and life as more meaningful. This, in turn, makes people more religious/spiritual and, therefore, again more prone to feel positive emotions, to have greater well-being, and be more prosocial.

Conclusion

Self-transcendence corresponds to the experience of self-concerns being pushed into the background, a heightened sense of connection to others, and a sense of meaning that could ultimately lead to the belief in transcendence per se. Positive emotions are powerful means for self-transcendence at different levels. At the intra-individual level, as outlined in the broaden-and-build model, positive emotions have been shown to promote broadened mindsets, approach behaviors, interest and curiosity for what happens outside the self, and a feeling of oneness with

others. However, the breakdown of rigid boundaries between the self and others might occur even more strongly when positive emotions are shared at an inter-individual level or at a collective level such as in rituals.

Sharing a positive emotion promotes a very direct sense of rapport with the listener and may induce positive emotions in the listener as well. In turn, the latter may share his or her positive emotions with others, creating a chain of social sharing. Therefore, the effects of positive emotions spread beyond the initial person and occur for each member in the chain.

Collective rituals, in which positive emotions are important ingredients, are also places where emotions spread and their effects even amplify. Music, entrainment, and synchrony have been studied as powerful means by which rituals allow for self-transcendence. Music is a common component of collective rituals and is inseparable from religious rituals where it has been shown to provoke mostly positive emotions. Music may provide the catalyst for a strong emotional response that may lead to a sense of transcendence in religious practice. Music also has the ability to entrain others. Because collective rituals may involve a large number of participants, music is one of the mechanisms by which rituals promote a sense of social bonding among all of them. Synchrony, in movements, singing, or speaking, is another means by which rituals allow for self-transcendence. Rituals thereby have been shown to heighten a sense of group identity instead of self-identity by lessening the self's boundaries. In addition, rituals create emotional effervescence so that if positive emotions are present, they will be experienced at very high levels.

If positive emotions open a path to the *experience* of self-transcendence, can they also push people to *believe* in a self-transcendent being? To investigate the role of positive emotions in regard to religion and spirituality, a family of positive emotions, the self-transcendent positive emotions, has been presented as particularly relevant to consider in the religious and spiritual

domains. Indeed, self-disinterested elicitors and prosocial action tendencies characterize these emotions. Their appraisals are already, in a way, self-transcendent as they correspond to watching greater good or beauty outside the self.

Research has shown that there is a clear affinity between positive emotions and religion/spirituality. Confirming what philosophers and theologians have said for a long time, research has shown that religious practices and rituals enhance positive emotions. Importantly though in this chapter, we also reported studies showing that positive emotions are not only consequences of religion and spirituality but they may also be an antecedent. Across four studies, induced self-transcendent positive emotions (awe, elevation, and admiration) were found to increase participants' belief in transcendence as assessed by scales of spirituality and religiousness. This effect was explained by the increase of belief in benevolence of others and the world and in meaningfulness of life. In two other studies, self-transcendent positive emotions also pushed the more religious and spiritual participants to act according to their faith. Finally, it was shown in two other studies that positive emotions are not to be considered as end states in themselves. They are one of the means by which religious rituals enhance important life-domains such as well-being and prosociality.

For the last 15 years, research in positive emotions has exploded. However, more integrative and direct investigation of their self-transcendent effect is still needed. The literature we referred to in this chapter comes from very different areas of research for which more dialogue would be worthy. Many avenues for future research are still open. Researchers should further investigate the specificity of the role of positive emotions compared to that of negative emotions in social sharing and rituals. What are the implications of sharing a positive rather than a negative emotion with someone, or of going to a mourning or celebratory ritual? We can already presume their distinct intra-individual effects, but one intriguing question is whether the

valence might also have an impact on the collective level. Moreover, having a better understanding of the differences between *discrete* positive emotions is another important step that needs to be taken. Specific self-transcendent positive emotions are particularly important in the religious and spiritual domains, but they have remained understudied. More research is needed to determine the exact role of these emotions in religious and spiritual people's lives. Importantly, both sides of causality and related processes need to be further investigated as well as long-term effects of positive emotions on religiousness/spirituality.

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