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Meditation Increases Compassionate Responses to Suffering

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Contemplative science has documented a plethora of intrapersonal benefits stemming from meditation, including increases in gray matter density (Hölzel, Carmody, et al., 2011), positive affect (Moyer et al., 2011), and improvement in various mental-health outcomes (Hölzel, Lazar, et al., 2011). Strikingly, however, much less is known about the interpersonal impact of meditation. Although Buddhist teachings suggest that increases in compassionate responding should be a primary outcome of meditation (Davidson & Harrington, 2002), little scientific evidence supports this conjecture. Even as scientists have begun to examine the effects of meditation on prosocial action, the conclusions that can be drawn with respect to compassion have been limited by designs that lack real-time person-to-person interactions centered on suffering. Previous work, for example, has utilized meditators' self-reported intentions and motivations to behave in supportive manners toward other individuals (e.g., Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008) and computer-based economic games requiring cooperation (e.g., Leiberg, Klimecki, & Singer, 2011; Weng et al., 2013) to assess altruistic action. Such methods have suggested that meditation may increase generalized prosocial responding, but have not clearly and objectively gauged responses meant solely to mitigate the suffering of other individuals.

To address this gap, we utilized a design in which individuals were confronted with a person in pain in an ecologically valid setting. If, as suggested by Buddhist theorizing, meditation enhances compassionate responding, participants who have completed a brief meditation course should act to relieve such a person's suffering more frequently than those who have not completed the course.

Method

The final set of participants comprised 39 individuals (29 female, 10 male; mean age = 25.23 years, *SD* = 4.66) recruited from the Greater Boston community for an 8-week study on meditation. (See the Supplemental Material available online for recruitment procedures.) Individuals were randomly assigned either to complete meditation classes or to be in a waiting-list control group. Those assigned to the meditation condition were further randomly subdivided to receive one of two protocols: mindfulness or compassion meditation. We utilized two separate meditation protocols both to enhance generalizability and to ensure that any resulting effects of meditation on behavior could not be attributed to demand characteristics. Although techniques to focus and calm the mind were taught in both protocols, direct discussion of compassion and the suffering of other people occurred only in compassion meditation. (See the Supplemental Material for meditation protocols.)

Meditation classes were held in a nondenominational venue dedicated to spiritual activities (e.g., prayer, meditation, yoga). A Tibetan Buddhist lama (author W. M.) with 20-plus years of meditation experience conducted both courses. The classes were taught in a secular format featuring 60 min of instruction, 30 min of practice, and 30 min for discussion; classes were held once a week for 8 weeks. Participants also received 20-min audio-guided meditations to complete independently outside of class. Participants reported their daily use of the audio recordings each week. Participants received $60 for their participation.[1]

Following 8 weeks of meditation practice or approximately 8 weeks after initial recruitment to the waiting list,

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participants were scheduled to come to the lab under the guise of completing tests of cognitive ability. To obtain a naturalistic measure of responses to suffering, we utilized confederates to construct a test situation outside the laboratory. All confederates were blind both to the hypothesis being tested and to each participant's experimental condition. Prior to a participant's arrival, two female confederates sat in a designated waiting area possessing three chairs. Upon arriving at the waiting area, the participant sat in the remaining chair. After the participant had been sitting for 1 min, a third female confederate, who played the role of the "sufferer," appeared around the corner with crutches and a walking boot. The sufferer, who visibly winced while walking, stopped just as she arrived at the chairs. She then looked at her cell phone, audibly sighed in discomfort, and leaned back against a wall.

To assess compassionate responding, we measured whether the true participant offered his or her seat to the sufferer to relieve her pain. Via text message, one of the sitting confederates surreptitiously notified the experimenter, who was waiting out of sight, whether and when the participant offered the seat to the sufferer. If 2 min passed and the participant had not given up his or her seat, the trial was ended and coded as a nonhelping response. The experimenter then entered the waiting area, greeted the participant, and escorted him or her to the lab to complete a series of measures unrelated to the goals of the present analysis.

Results and Discussion

As predicted, meditation directly enhanced compassionate responding. Meditators offered their seats to the sufferer more frequently than did nonmeditators from the waiting-list control group, $\chi^2(1, N = 39) = 5.13$, $p = .02$, $\phi = .36$ (see Table 1). This enhanced prosocial responding did not differ as a function of meditation protocol; participants practicing mindfulness meditation were as likely to aid the sufferer as were those practicing compassion meditation (see the Supplemental Material for analysis).[2] That 8 weeks of meditation resulted in such a large effect—increasing the odds of acting to relieve another person's pain by more than 5 times (odds ratio = 5.33)—is all the more striking given that the helping occurred in a social context whose features should attenuate such behavior. The simple presence of the two confederates and their total disregard for the pain of the sufferer constitutes a classic bystander manipulation in which both diffusion of responsibility and norms suggesting an acceptance of nonintervention are heightened (cf. Darley & Latané, 1968).

Table 1. Observed and Expected Frequencies of Helping Behavior Across Conditions

	Meditation training		Waiting-list control	
Outcome	Observed	Expected	Observed	Expected
No help	10	13.3	16	12.7
Help	10	6.7	3	6.3

Additional work will be needed to isolate the specific causal mechanism for the observed effect more narrowly, as several meditation-induced mediators (e.g., heightened awareness, increased perspective taking) stand as possible candidates (cf. Hölzel, Lazar, et al., 2011). Nonetheless, this study is the first to clearly show the power of meditation to increase compassionate responding to suffering, even in the face of social pressures to avoid so doing. In turn, it provides scientific credence to ancient Buddhist teachings that meditation increases spontaneous compassionate behavior.

Author Contributions

P. Condon, D. DeSteno, G. Desbordes, and W. B. Miller designed the experiments. P. Condon and W. B. Miller conducted the research. P. Condon and D. DeSteno conducted the analyses and wrote the manuscript.

Declaration of Conflicting Interests

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

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Supplemental Material

Additional supporting information may be found at http://pss.sagepub.com/content/by/supplemental-data

Notes

1. Participants in the meditation condition earned an additional $20 and entry into a $100 raffle for completing weekly logs.
2. Additional analyses revealed that gender did not affect rates of helping behavior. Also of import, analyses of self-reported social networks demonstrated that social-network size neither increased as a result of participation in the meditation classes nor significantly differed between the meditation and control groups, suggesting that increases in social capital from participating in a group activity could not account for the central finding that meditation increased compassionate responding (see the Supplemental Material for these and additional results).

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