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**Journal of Environmental Studies and
Sciences**

ISSN 2190-6483

J Environ Stud Sci
DOI 10.1007/s13412-012-0083-y



From science communication to relationship-building: contemplative practice and community engagement in the environmental sciences

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Abstract True engagement with communities on environmental issues involves not only the technical knowledge that scientists offer, but also the ability to relate effectively. While there are now many courses and books that offer tools focused on helping scientists improve their communication skills, a fundamental piece of the communication puzzle is often left out: the ability to listen deeply. Listening is particularly important in the context of community engagement where relationships are central and it is vital that solutions be co-developed, offering a higher chance for success over the long term. Contemplative practices including meditation have the potential to enhance both individual and broader community engagement capacity. Cultivating the ability to listen and deepen the relationship to oneself and others are important components of many of these practices. Case studies applying contemplative practice—in particular the practice of mindfulness meditation, which is focused on developing self-awareness in the present moment and without judgment—in professional fields including medicine and law can be useful as environmental scientists practice community engagement and relationship-building.

Keywords Science communication · Community engagement · Contemplative practice

Introduction

Across the sciences, it is increasingly recognized that engaging with communities is valuable, particularly on controversial

issues such as climate change. There is now significant evidence that a lack of scientific information is not the major challenge to taking action on environmental issues (Nisbet and Scheufele 2009), and that co-developed solutions, particularly to environmental challenges, have a better chance of long-term success (Lynn et al. 2010). This shift from one-way communication to engagement involves not only the technical knowledge that scientists and practitioners offer, but also the ability to relate effectively with others.

For most scientists, training in communication, where it exists, is focused on improving the delivery of research messages by bettering the ability to frame information or speak with the media (see, for example, Baron 2010; Meredith 2010; Dean 2009; Olson 2009). However, effective engagement includes building relationships and trust and working collaboratively with community leaders and organizations (National Institutes of Health 2011). Engagement also includes dialogue and deliberation (Chapin et al. 2011; Nisbet and Feldman 2010; Van der Sanden and Osseweijer 2011) and, in certain situations, conflict resolution. As a result, to engage effectively with communities, environmental scientists and practitioners would benefit from additional relational abilities that are largely not addressed by current science communication training.

A key component of engagement is multidirectional communication that takes into account both our relationship with communities and those amongst community members as well. Indeed, engagement places relationships (as opposed to “audiences”) front and center, creating not so much a communication challenge as a relationship challenge. In truly engaged relationships, listening, with the willingness to be changed by what is heard, becomes an equally, if not more, significant part of the communication process.

While engagement can be both enjoyable and rewarding, scientists must also contend with the fact that it can, at times, be uncomfortable and confusing. We may be confronted with world views that are vastly different from our

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own, and even when we agree with community members or organizations, it can be difficult to reconcile what is learned back into our research and communication process. While many environmental scientists and practitioners are interested in community engagement, very little attention is paid to the experience of the individual in the engagement process, and understanding and working with that individual experience can be helpful.

Contemplative practices, or practices that help to cultivate awareness, can enhance our capacity to engage by cultivating our ability to listen deeply, connect with others, gain self-awareness, and deal more effectively with conflict. After a description of contemplative practice, examples of the use of contemplative practices in medicine and law are used to explore their potential value for environmental scientists interested in effective community engagement.

Describing contemplative practice

The term contemplative practice encompasses a variety of activities that cultivate awareness. Many of these practices, such as meditation, are rooted in various religious and spiritual traditions but have been adapted for secular life (Duerr 2004). While people might most easily identify activities like meditation or prayer as contemplative, there is a much wider scope of practices that can be included under the contemplative banner. These include movement-based practices such as martial arts and yoga; creative practices like making art and music; stillness practices such as silence; and relational practices including dialogue and deep listening (Center for Contemplative Mind in Society 2007). Indeed, the contemplative “umbrella” has room for a wide variety of practices that when done with (1) consistency, (2) the intention to connect with the self, and (3) the intention to cultivate awareness of our feelings, thoughts, and reactions, can serve a contemplative function. While sometimes seen as activities that tend toward “navel gazing,” contemplative activities can actually expand our ability to relate with others.

Meditation at the most basic level can be defined as being present with what is happening and not trying to change it. There are many ways to enter a meditative state, including sitting and walking practices. Mindfulness meditation is a particularly well-studied type of meditation with varying definitions, but is in general focused on cultivating awareness by paying attention to the present moment with curiosity, openness, and acceptance (Kabat-Zinn 1994).

Contemplative practices can have many benefits at the individual level including increased awareness and concentration, patience, empathy, and compassion. For example, neuroscientists have found that regular meditation results in

physical and behavioral changes. The physiological benefits of meditation include measurable changes in the gray matter parts of the brain that are in association with memory, sense of self, empathy, and stress (Holzel et al. 2011). Behavioral benefits include greater compassion and empathy (Lutz et al. 2008), attention (Lutz et al. 2004), and increased concentration (Slagter et al. 2007). This is just a small number of the studies associated with attempting to quantify the individual impact of contemplative practice.

Despite the benefits, contemplative practice itself can be uncomfortable. As we become more aware of our feeling, thoughts, and reactions, we may find them challenging. However, scientists are already contemplatives in many ways—both science and contemplative practice are curiosity-driven endeavors, benefit from experimentation and being open to outcomes, and can lead to new insights.

Contemplative practice in other professions

Professional recognition of the value of contemplative practice is prominent in fields where stress and conflict are common.

Medicine

The medical field has been particularly challenged to stay within its core value of treating whole individuals. Kabat-Zinn (1990) developed mindfulness-based stress reduction approach in the 1970s at the University of Massachusetts Medical School. His program was focused on mindfulness meditation as an approach to treating people with chronic illnesses. It has moved into the realm of a practice for medical professionals who are often working under a great deal of stress while also struggling to remain empathetic and compassionate with patients (Krasner et al. 2009; Parker-Pope 2011).

In addition, the focus on contemplative practice in the medical field has led to the development of contemplative science and in particular contemplative neuroscience, which focuses on the impacts of contemplative practice on human well-being. The results of some of this research were described in the section above on the benefits of contemplative practice.

Law

Legal professionals are often at the center of adversarial situations and several major law schools have developed contemplative classes or groups. These include the University of California, Berkeley Boalt School of Law; the University of California, San Francisco Hastings School of Law; and New York University. Harvard, Yale, and Berkeley

law programs sometimes offer joint meditation retreats for students and law firms are increasingly sponsoring contemplative groups and retreats.

Recently, there has been an increasing focus on “relationship-centered lawyering” and “therapeutic jurisprudence” (Brooks and Madden 2010). Both of these related approaches to legal practice emphasize an approach to the law that considers the psychological and emotional impacts of their profession on the people affected by legal work. Mindfulness is viewed as a beneficial practice for professional negotiators (Brach 2008).

Contemplative practice and community engagement in the environmental sciences

Contemplative practices are particularly well-suited to help contend with the individual challenges faced in community engagement, as well as to become better practitioners. As scientists begin to engage with communities on sometimes controversial environmental issues, there is much to be gained from understanding how contemplative practices have been useful in other fields where conflict is common.

The examples used here have explored the value of contemplative practices at the level of the individual. There are, however, challenges in evaluating the value of contemplative practices at levels beyond the individual—for example, within groups and with larger institutions. However, in the case of community engagement in the sciences, there is little discussion of the individual experience, and so in this sense, there is a great deal to be gained from discussion of individual benefits of contemplative practice.

By learning to engage more deeply, it is possible that solutions to environmental challenges will arise that we may not see from our own perspective. Accepting the conflict that can arise from engagement can help to identify areas where more dialogue would be helpful.

Environmental scientists have long been leaders in new approaches to science communication and a focus on engagement invites us to expand our efforts. The more we understand about the value of engagement, the more beneficial it becomes to cultivate the ability to listen and to work with the often conflicting emotions that arise when we relate with people on a meaningful level.

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