Reply to Josipovic: Duality and non-duality in meditation research

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ABSTRACT

We agree with Josipovic that a fundamental differentiating feature of meditation techniques is whether they remain within the dualistic subject–object cognitive structure, or they transcend this structure to reveal the underlying non-dual awareness. Further discussion is needed to delineate the basic non-dual experience in meditation, where all phenomenal content is absent, from the more advanced experience of non-duality in daily life, where phenomenal content is obviously present as well. In this discussion, it is important to recognize that the experiencer–object relation makes the experience dual or non-dual, rather than the nature of the object experienced.

Josipovic defined a second important dimension to categorize meditation practices, namely whether meditation experiences are primarily dual or non-dual: “In terms of the actual goal of meditation practice, the fundamental differentiating feature of a meditation technique is whether it remains within the dualistic subject-object cognitive structure, or whether it transcends this structure to reveal the underlying non-dual awareness.” This experience-dimension maps roughly onto the three categories of cognitive processing in meditation practice—focused attention, open monitoring and automatic self-transcending—expanded by Travis and Shear (2010) from Lutz, Slagter, Dunne, and Davidson (2008).

We agree with Josipovic that: “Both focused attention and open monitoring styles of meditation contain an essentially dualistic orientation of subject-observing-object.” Focus on a single object of experience or an orientation to monitoring changing objects of experience keeps the meditator involved with the procedures of the technique.

In contrast, the basic non-dual experience (“pure consciousness” or “emptiness”) is devoid of phenomenological content, and by its nature requires transcending of the processes and objects of meditation. If processes or objects were there, it would not be this widely described experience. We also agree that “...there may be, initially, various degrees of focused attention deployment, until one can access this non-dual awareness.” This could be true within a single meditation sitting as well as in an individual’s meditation experience over time.

We were happy to see Josipovic mention the distinction between (i) the basic non-dual experience in meditation, where all phenomenal content is absent and (ii) the more advanced experience of non-duality in daily life, where phenomenal content is obviously present as well. This is a very important phenomenological distinction, often missed in contemporary discussions of non-duality and the development of consciousness. Our discussion of non-dual experiences here was only with the basic type of non-duality as experienced in meditation, rather than later, more advanced experience.

We also agree with his observation that non-dual awareness is not a level of consciousness easily operationalized in cognitive neuroscience. We explored the nature of non-dual experiences during practice of the Transcendental Meditation

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technique, a meditation practice that fell in the “automatic self-transcending” category. Fifty-two TM practitioners were asked to describe their deepest experiences during TM. They were asked to use their own words, as if they were describing the taste of a strawberry. Content analysis of their descriptions yielded three themes—the absence of time, absence of space, and absence of body sense (Travis & Pearson, 2000). Time, space and body sense are the framework for giving meaning to waking experience. It is understandable that the basic non-dual meditation experience, characterized by the absence of this meaning-making framework, would be outside of usual cognitive models.

We’d like to address Josipovic’s discussion of gamma EEG. First, we agree that gamma EEG during meditation needs to be carefully distinguished from eye saccades (Yuval-Greenberg, Tomer, Keren, Nelken, & Deouell, 2008) and effects of muscle tone (Whitham et al., 2007). Second, Josipovic questioned whether loving kindness meditation should be in the focused attention category with Qigong, Zen (focusing on the 3rd ventricle) and Diamond Way Buddhism. He suggests that “…the non-referentiality of compassion makes it more akin to meditations in the non-dual or ‘automatic self-transcending’ category.” As we discussed, gamma EEG reflects local processing within short-range connections responsible for object recognition and so construction of the content of experience (Lubar, 1997; Singer, 1999). The description of the procedure of loving kindness and compassion—to create a specific experience, pure compassion—suggests that the subject actively constructs in awareness a specific experience different from other experiences. As gamma EEG is reported during “…construction of the content of experience,” it appears that loving kindness would fit in this category. In our opinion, it is not the nature of the object experienced, but the experiencer–object relation that makes an experience non-dual, and Josipovic’s observation about the non-referentiality of the object of experience (compassion) does not itself speak to this relation. In addition to their focused attention practice, the monks studied may well have been having non-dual experiences of the advanced type. Here, as elsewhere, teasing out the reality will require close attention to the details of the phenomena involved, as Josipovic so rightly emphasizes.

Last, Josipovic mentions that Cahn, Delorme, and Polich (2010) reported “parietal–occipital” gamma EEG during Mindfulness Meditation. In our paper, we commented: “Gamma was reported in the four sensors on the periphery of the electro-cap, with P7 and P8 being over temporal rather than parietal cortices. This study is included in the open monitoring category, marked by theta activity, because theta (also) significantly increased during this meditation and the meaning of gamma power on the periphery of the recorded EEG is not clear.”

We echo Josipovic’s ending comment that EEG signals during meditation may more reflect the overall levels of arousal in the brain and the specifics of various cognitive processes associated with the techniques of meditation rather than the end state of meditation practice itself. Adding this second dimension—the nature of the subjective experiences during meditation along a dual/non-dual continuum—is a valuable step towards building a taxonomy to guide meditation research.

References