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It has been hypothesized that whether religion originated as a by-product of evolution or a functional adaptation, religious beliefs have engendered an evolutionary advantage to believers (Norenzayan et al., 2016). Religion can be thought of as a disease-avoidance mechanism (Terrizzi, 2017) and a mechanism to deal with uncertainty (Powell & Clarke, 2013). However, considering yourself more religious wouldn't necessarily replace traits that evolved to maximize likelihood of survival, such as disgust sensitivity (Oaten, Stevenson, & Case, 2009). More religiousness actually relates to higher levels of disgust sensitivity (Lieberman, Tybur, & Latner, 2012). By adopting religious beliefs, a social phenomenon, on a personal level, individuals may develop an excess of disease-avoidance mechanisms (Terrizzi, Shook, & Ventis, 2012). This excess may manifest in the form of a more reactive and less discriminatory threat-detection system, and downstream prejudice (Crawford, Inbar, & Maloney, 2014).

One religion which may diverge from major religions (i.e. Christianity, Judaism, Islam) regarding adaptive advantages is Buddhism. A possible reason for this is that a tradition of mindfulness practice was embedded in Buddhist beliefs (Nyanaponika, 1973). In addition to meditative mindfulness practices, one's tendency, or disposition, to be mindful may interact with religious beliefs in a way that promotes functional adaptivity. We are currently collecting data to examine the interaction between religious beliefs, dispositional mindfulness, and adaptive outcomes such as disgust sensitivity. We expect dispositional mindfulness to be associated with only some of the same constructs as general religious beliefs. Two evolved systems pertaining to disease-avoidance (Schaller, 2014) and uncertainty (Webster & Kruglanski, 1994) likely exhibit different relationships to religious beliefs and mindfulness. Mindfulness training has consistently led to less automatic reactivity and greater resilience to consequences of affective experience (Desbordes et al, 2015). As such, mindfulness training might be calming, and optimizing the function of evolved threat-detection systems in present experience.

Current investigations are looking into the influence of both dispositional and trained mindfulness on threat-detection systems. An intensive 5-day training course in the Four Foundations of Mindfulness (FFMT) has been developed in an effort to isolate and examine the effects of mindfulness-based meditation practice. This type of training is substantively distinct from the predominant Western mindfulness training programs, particularly in the absence of yoga. Considering the key role of affect in attention and threat-detection (Ohman, Flykt, & Esteves, 2001), neural responses while viewing affective pictures will be used to illustrate the effects of FFMT. Presenting affective cue words prior to affective images allows measurement of early neural indicators of affective anticipation, bias, and appraisal. This study examines six categories of affective images with varying arousal and valence levels (Lang, Bradley, & Cuthbert, 2008), with two "very unpleasant/high arousal" categories: volitional human threat (e.g. a gun being pointed at you) and incidental disease threat (e.g. feces).