Nondual Meditation with Novices and
Negative Emotion Reactivity and Cognitive Dissonance Discomfort

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Abstract

Nondual meditation (NDM) is a form of meditation that decreases one's view of the self as constituted by "content" (self-as-content) and directs attention to "awareness" (self-as-awareness). One way of conceptualizing the impact of NDM is to focus on its effects on a narrative sense of self that is central to emotion generation. In two studies, we tested whether a one-time NDM meditation with naïve participants could reduce negative emotional reactivity. Study 1 confirmed our hypothesis NDM would lead to a significantly greater reduction in negative emotional reactivity than a neutral control visualization. Study 2 added a covert cognitive dissonance task. In Study 2, however, we found no effects of NDM on either negative emotional reactivity or cognitive dissonance discomfort. We discuss potential sources for the null effects in Study 2, including the potential fragility of salutatory effects of NDM in meditation novices that may be susceptible to dissonance and choices strongly activating a narrative self.

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The concept of the self has been discussed in Western psychology since the time of Williams James. James (1890) posited three different kinds of self, including a physical, mental, and spiritual self. James' spiritual self refers to one's sense of personal identity that extends across the past and future, in contrast to the mental self which is the sense of an 'I' acting in the present moment. Eastern traditions, particularly Buddhist traditions, have devoted much contemplative practice toward studying the nature of self (Dunne, 2005; Gethin, 1998). Buddhist teachings assert that most people mistakenly view their personal identity in terms of a real and fixed "self," or *ātman*, which in reality does not exist (Dunne, 2005). From a Buddhist perspective, these misconceptions lead to the belief in the self as permanent, singular, and autonomous, and reifies an absolute sense of duality, or separation between self and other, and more generally between subject and object (Ekman, Davidson, Ricard, & Alan Wallace, 2005).

A central tenet of Buddhism posits that if one searches for the "experiencer" or "self" of one's experiences (i.e., as some constituent or constituents of mind and body), none can actually be found (Chambers, Gullone, & Allen, 2009; Dunne, 2005). The theory centered around this tenet is referred to as the theory of "no-self," or *anātman* (Dunne, 2005; for a more extensive introductory discussion see Gethin (1998) and for a more advanced discussion see Nydahl (2008)). This theory does not deny that the self can serve useful conventional purposes for both speaking and practical interaction (Dunne, 2005). However, Buddhist contemplative traditions state that sustained practice into understanding the ultimate nature of reality and the self are a source of enduring

happiness and the ability to transform and free oneself from afflictive states and emotions (Ekman, Davidson, Ricard, & Alan Wallace, 2005). The current paper looks at the shift in identification with the contents of the mind (thoughts, emotions and physical sensations) (self-as-content) to identification with awareness (self-as-awareness) and this perspective shift on negative emotional reactivity and cognitive dissonance.

In this introduction, I first discuss the essential teachings of Nondual traditions, and then focus on the shift from self-as-content to self-as-awareness and its potential influence on negative emotion and dissonance. I then address the challenge of operationalization and the weaknesses and strengths of relying on certain pre-existing models. Next, I attempt to lay the groundwork for future neurophenomenological study of Nondual meditations by drawing on neuroscience and cognitive science on pre-reflective features of consciousness, and then different modes of the self. I finally discuss the influence that sustained meditation practice may have on different modes of self, and I conclude with the specifics of our current study.

Nondual Traditions and Meditation

Nondual traditions of spirituality suggest that human suffering and afflictive emotions are generated by a belief in duality, separateness, and identification with contents of mind rather than awareness, which is our true identity. There is no single Nondual school or single tradition in Buddhism with a specific set of teachings on "the" view of Nonduality (Dunne, 2005; Gethin, 1998; Hudson, 2005). Many advanced practices (Nydahl, 2008) focus on direct experiences of awareness and Nondual experiences, but similar to mindfulness, different schools differ on certain details and

metaphysical conclusions (Dunne, 2005; Gethin, 1998). Meditation practices stemming from the Nondual traditions may nonetheless alter one's habitual relationship toward the self and awareness in specific ways.

Nondual meditation (NDM) refers to various Buddhist meditative practices that focus on experiences of no-self. In NDM, one introspects and experiences that there is no self constituted by any mental or bodily content, but despite a continual changing of content, there remains an ever present (pre-reflective) awareness. 'Awareness' refers to that which gives rise to "qualia" (Chambers, Gullone, & Allen, 2009), which is the subjective-experiential character of "what it is like for a subject" to be in a particular state (Lutz & Thompson, 2003; Nagel, 1979).   From the perspective of awareness, one identifies her nature with awareness rather than content which cannot constitute the whole self.

On the one hand, NDM decreases identification with a narrative self, whereby personal identity and autobiographical information are challenged as constituting an enduring, fixed self. We refer to "self-as-content" as the process of experiencing the self as thoughts (autobiographical, narrative, or conceptual information), feelings, or sensations. On the other hand, NDM directs attention toward a present moment experience of the self that does not include narrative or autobiographical content. This present moment experience of the self is a minimal subjective sense of "I-ness," a "minimal or core self" referred to as ""ipseity"" (Lutz, Dunne, & Davidson, 2006). We call the process of experiencing the self as this minimal sense of I-ness "self-as-awareness."

Nondual Meditation Shift from Self-as-content to Self-as-awareness

We conceptualize that meditations from the Nondual tradition that can result in a shift in identification with self-as-content to self-as-awareness may reduce negative emotion reactivity and cognitive dissonance discomfort. Emotional responding has been theorized to occur through a process of appraisal, whereby one evaluates a situation or event in relation to her personal well-being (Lazarus, 1993; Lazarus & Smith, 1988). Negative emotion reactivity results when the significance of what is happening is appraised as a threat against one's personal well-being or person-environment relationship (Lazarus, 1993; Lazarus & Smith, 1988). We suggest that a shift toward self-as-awareness may help individuals take potential threats less personally, which would result in reduced negative emotion.

More specifically, by identifying the self with awareness rather than content, one can relate to negative thoughts and feelings by viewing them as events in the larger field of awareness rather than as necessarily true – a process known as "decentering" (Fresco et al., 2007; Teasdale, 1997; Teasdale, Segal, & Williams, 1995). Decentering which refers to this process of distancing or disidentifying with negative content was later referred to as metacognitive insight (Bishop et al., 2004; Segal, 2002; Teasdale, 1999). Finally, metacognitive awareness refers to the process of experiencing negative thoughts and feelings within a decentered perspective, rather than as the self (Teasdale et al., 2002). From the perspective of identifying the self with awareness, content is not seen as accurately reflecting the nature of the self, which may lead to an increase in metacognitive awareness. This shift in identification to self-as-awareness and resulting

increase in metacognitive awareness may allow one to decenter from negative content targeting the self and reduce negative emotion reactivity.

 In addition to negative emotion reactivity, this shift in identification, if robust enough, may decrease cognitive dissonance discomfort. Cognitive dissonance theory (Festinger, 1957) suggests that holding in mind two views or cognitions that are inconsistent with one another leads to state of psychological discomfort. This discomfort known as cognitive dissonance results in the drive to reduce dissonance by altering one's cognitions (Festinger, 1957). Later developments in dissonance theory emphasized the importance of relation to the self, whereby only inconsistent cognitions relevant to one's self-concept induce dissonance discomfort (Aronson, 1969).

Nondual meditation's emphasis on one's relation to the self makes it worthy of comparing it to other heavily studied phenomena like self-affirmation that have been shown to reduce cognitive dissonance. Self-affirmation theory suggests that individuals are motivated to be good and honest in character, and that when threatened otherwise, the resulting discomfort can be minimized by affirming evidence that restores the integrity of the global self-system (Steele, 1988). Self-affirmation has shown robust effects in reducing the discomfort associated with threats and attacks against one's self-system (Sherman & Cohen, 2006), and in minimizing the need to engage in dissonance-discomfort reduction through cognitive distortions (Steele, Hopp, & Gonzales, 1986; Steele & Liu, 1983; Steele, Spencer, & Lynch, 1993).

We conceptualize that, if a strong NDM state can be sustained (an open question discussed below is how extent of practice may affect this process), NDM may offer

another means of minimizing dissonance discomfort that has not been considered in Western psychology – circumventing the global self-system rather than attempting to restore it. By residing in metacognitive awareness that decenters one from the dissonant contents threatening the self, NDM, may minimize the need to engage in dissonance reducing distortions, as self-affirmation does.

The Shift in Relation to Pre-existing Meditation Operationalizations

The author is not aware of any psychological literature attempting to operationalize NDM within a Western psychological model. To begin with, any operationalization should acknowledge that Buddhist teachings strongly emphasize that awareness cannot be understood conceptually, but can only be known through direct experience (Chambers, Gullone, & Allen, 2009). One of the difficulties in operationalizing mindfulness meditation has been the attempt to rely solely on pre-existing cognitive-behavioral operationalizations, even though mindfulness comes from a Buddhist tradition with different metaphysical assumptions and approaches to the mind that are different than in Western psychology (Chambers, Gullone, & Allen, 2009).

Nonetheless, operationalizing a shift in self-as-content to self-as-awareness can benefit from comparing other operationalizations in mindfulness meditation literature while acknowledging their potential limitations. This includes a comparison with Mindfulness Based Cognitive Therapy (MBCT; Segal, 2002; Teasdale et al., 2002), Mindfulness Based Stress Reduction (MBSR; Kabat-Zinn, 1990), and Acceptance and Commitment Therapy (ACT; Hayes, Luoma, Bond, Masuda, & Lillis, 2006; Hayes & Pierson, 2005).

Though potentially limiting in operationalizing self-as-awareness, constructs of decentering and metacognitve awareness used in operationalizing MBCT (Segal, 2002; Teasdale et al., 2002) may prove useful in capturing the *effects* of a Nondual shift that change one's *relationship* to content. Decentering and metacognitive awareness would be expected to increase as a result of experiencing the self as awareness, in contrast to content that is not seen as accurately reflecting the nature of the self. Importantly, however, metacognitive awareness is not the same as the awareness which one identifies with in such a shift. While metacognitive awareness refers to a cognitive set of experiencing negative thoughts and feelings within a decentered perspective (Teasdale et al., 2002), the awareness one identifies with in Nondual practices is an awareness that is ever-present despite one's metacognition of it (i.e., is pre-reflective) and is not dependent on the type of content it observes.

Mindfulness Based Stress Reduction (MBSR; Kabat-Zinn, 1990), however, is the only mainstream meditation intervention which includes some meditation practice that directly focuses on awareness itself (Chambers, Gullone, & Allen, 2009). In MBSR's practice of "choiceless awareness," one extends her capacity of experiencing mental phenomena (thoughts, feelings, sensations) without mental elaboration or judgment by resting her attention on the awareness that gives rise to these experiences (Kabat-Zinn, 1990). Even though experience of direct awareness may be included, MBSR does not focus on Buddhist notions on the nature of "awareness and objects of awareness" and the relation to the experience of self and no-self (Chambers, Gullone, & Allen, 2009). As a result, the central tenet of no-self is missed in these formulations and potentially ignores

the emotional health benefits stemming from this experience and associated practices

(Chambers, Gullone, & Allen, 2009).

Though Acceptance and Commitment Therapy (ACT) does not incorporate

routine meditation practice as part of its intervention (Chambers, Gullone, & Allen,

2009), ACT's mindfulness construct of "self as context" (Hayes, Luoma, Bond, Masuda,

& Lillis, 2006; Hayes & Pierson, 2005), also referred to as "the observing self" (Harris,

2006) provides the best existing conceptualization for our term self-as-awareness. Harris

(2006) describes self as context succinctly as the observing self:

> *The Observing Self*: accessing a transcendent sense of self; a continuity of consciousness
> that is unchanging, ever-present, and impervious to harm. From this perspective, it is
> possible to experience directly that you are not your thoughts, feelings, memories, urges,
> sensations, images, roles, or physical body. These phenomena change constantly and are
> peripheral aspects of you, but they are not the essence of who you are. (p. 7)

The observing self is referred to as "self as context" because ACT helps clients

experience consciousness not as the contents of experience, but as the context for private

experiences (Hayes & Pierson, 2005). This conceptualization aptly makes this

distinction, and also refers to the unchanging and ever-present features of

self-as-awareness that we refer.

The reason I use the term self-as-awareness in place of "self as context" is

because I would like to extend the scope of my term to include a discussion of the recent

neuroscience and cognitive science literature pertaining to the experience of the self,

especially its pre-reflective features. Through such an extension of the term,

psychological science can build toward a better neurophenomenology of NDM practices.

Pre-reflective, Subjective, and Phenomenal Features of Self-as-awareness

The awareness that NDM draws one to identify with in self-as-awareness may likely be pre-reflective self-consciousness (Gallagher & Zahavi, 2006; Legrand, 2003, 2006, 2007). In line with self-as-awareness directing one toward "ipseity", or a minimal subjective sense of "I-ness", cognitive scientists and neuroscientists describe a minimal form of self-consciousness that is pre-reflective and a structural feature of conscious experience upon which other conscious experience is possible (Gallagher & Zahavi, 2006; Legrand, 2003).

I suggest that the "unchanging" and "ever-present" quality that self-as-awareness points to is this structural feature of self-consciousness. I quote directly from Gallagher and Zahavi (2006) to provide a more precise definition and explanation of pre-reflective self-consciousness:

> For the phenomenologists, [the] immediate and first-personal givenness of experiential phenomena must be accounted for in terms of a pre-reflective self-consciousness. In the most basic sense of the term, *self-consciousness is not something that comes about the moment one attentively inspects or reflectively introspects one's experiences*, or in the instant of self-recognition of one's image in the mirror, or in the proper use of the first-person pronoun, or in the construction of a self-narrative. Rather, these different kinds of self-consciousness are to be distinguished from the *pre-reflective self-consciousness* which *is present whenever I am living through or undergoing an experience*, i.e., whenever I am consciously perceiving the world, whenever I am thinking an occurrent thought, whenever I am feeling sad or happy, thirsty or in pain, and so forth. (Abstract, ¶ 1; emphasis added)

I suggest that self-as-awareness places one's attention on pre-reflective self-consciousness that is the ever-present feature responsible for one's phenomenal experience.

Northoff and colleagues' (2006) review on self-referential processing on the brain refers to this kind of self-consciousness as the subjective or phenomenal aspect (Block, 1996; Chalmers, 1996) of experience, which may be used as alternate terms for the same

structural feature of self-as-awareness. Here "'Experience' refers to phenomenal experience such as, for example, the feeling of love, the smell of a rose, or the feeling of mineness" (Northoff et al., 2006, p. 441). Northoff et al. emphasize that this phenomenal aspect is pre-reflective, and different than more cognitive and reflective functions. I suggest that self-as-awareness draws one's attention to and also leads one to view the self as this pre-reflective, subjective, and phenomenal aspect of experience.

Self-as-awareness' Relation to Different Modes of Self

In describing self-as-awareness in NDM, it is important to discuss the different modes of self-referential processing that may be affected. Northoff et al. (2006) discuss the phenomenal aspect of experience in the larger context of the relationship between concepts of the self and neuroscience of self-referential processing. Their review considers neuroimaging data coalescing support around three different kinds of self-referential processing that map roughly onto William James' (1890) physical, mental, and spiritual self.

The physical self (James, 1890) is a bodily self constituted by sensory and motor processing, and has more recently been called the "proto-self" (Damasio, 2000; Panksepp, 1998a, 1998b). The mental self is constituted by the minimal subjective sense "I-ness" or "ipseity", and has been referred to as the "core or mental self" (Damasio, 2000) or the "minimal self" (Gallagher, 2000; Gallagher & Zahavi, 2006). Northoff et al. (2006) suggest that this mental or core self is pre-reflective and involves the phenomenal aspect of experience. Finally, James' spiritual self, also called the "autobiographical self"

(Damasio, 2000) or "narrative self" (Gallagher, 2000), is the sense of self tied to memory and linked across time with events in the past, present, and future.

If experiencing self-as-awareness in NDM directs attention toward pre-reflective self-consciousness or the phenomenal aspect of experience, I suggest it would activate more strongly self-referential processing associated closely with this mental or core self. Importantly, this does not imply that this self-referential processing must be linked to self-related thinking or conceptual thought. In advanced Nondual states, experts report no thought, but an awake, "alive consciousness" (Astin, 2010), which should involve an experience of a mental self, the pre-reflective and phenomenal features of self-consciousness, but no conceptual content. While NDM may increase self-referential processing associated with the mental or core self, it likely decreases processing of the autobiographical or narrative self. While no empirical research has been done, a similar suggestion about mental and narrative self processing has been made about the alleged effects of open presence meditation (Lutz, Dunne, & Davidson, 2006).

Self-as-awareness and the Influence of Practice on Modes of Self

This difference in dual modes of self-referential processing may be influenced by amount of meditation practice. Such a difference has been shown on a neural level in a study by Farb et al. (2007) comparing mindfulness meditation between novice mediators and a mindfulness meditation training (MT) group who completed an 8-week Mindfulness Based Stress Reduction (MBSR) program. The study compared neuroimaging of a task for "narrative focus" (NF), where participants monitored self-relevant traits, with "experiential focus" (EF), where participants monitored

momentary experience. Narrative focus may represent a neural correlate for the

"narrative self," which links subjective experiences across time (Gallagher, 2000;

Northoff et al., 2006).

Strong evidence suggests that narrative mind-wandering serves as the default state

of self-reference (Mason et al., 2007), which is very similar to the default mode of resting

attention (Gusnard, Akbudak, Shulman, & Raichle, 2001; Raichle et al., 2001). In line

with this default mode evidence, Farb et al. (2007) found that novices showed a strong

coupling between the two modes that are habitually integrated, but only MT participants

showed a dissociation between these two modes during the EF task. Novices did show

significant deactivations in cortical midline regions associated with NF, although these

reductions were more marked in MT participants who showed an uncoupling between

regions associated with NF and EF (Farb et al., 2007).

These differences between novices and those with practice of as little as 8 weeks

may be directly relevant to effects of NDM. As a preliminary caveat, Farb and

colleagues' (2007) operationalization of experiential focus (EF) is not equivalent to the

awareness of self-as-awareness because it involves the monitoring self-related thinking

rather than the direct monitoring of awareness. Nonetheless, novice meditators who

likely have more difficulty clearing their mind of thoughts may undergo similar processes

in NDM, and Nondual states of experts may still decrease narrative focus and recruit the

same processes *associated* with experiential focus. Specifically, novice participants may

show minimal effects as a result of attention on EF associated processes that result

largely through decreases in NF, but these effects may be distinct from those with

attentional training that results in more pervasive EF associated processes that is decoupled from NF.

Current Study

In this study we sought to determine if NDM could prove effective in reducing negative emotion and dissonance discomfort in participants with little or no meditation experience, i.e., novices. In looking at negative emotion, we conceptualized that NDM would help individuals take threats less personally, though we also wanted to test if any effects would also hold for negative emotion inducing encounters that did not target an individual personally.

For this reason, in Study 1, we used two measures of negative emotion reactivity to look at different kinds of negative emotion responding: responses to (1) personally critical negative statements, which targeted an individual's behavior, personality, and character, and (2) general negative statements, which were negative statements about situations and others but did not target the individual (see methods for specifics). In short, we conceptualized that NDM would lead to a shift from self-as-content to self-as-awareness which would help participants decenter from negative emotional threats. As a result, our hypothesis for Study 1, H1, was that NDM would significantly reduce negative emotional reactivity in participants on both measures of negative responding, in contrast to a neutral control visualization that would not.

In Study 2, we sought to expand our findings in Study 1, to also look at effects of NDM on cognitive dissonance discomfort. Because of desires of efficiency of looking at both negative emotion responding and cognitive dissonance discomfort, Study 2

integrated tasks for both these measures into one study. We conceptualized that if a Nondual shift from self-as-content to self-as-awareness was robust enough in these novice participants, this shift could decenter participants from negative emotional threats and cognitive dissonance discomfort. However, we were uncertain if this shift would be strong enough in novices to withstand both a negative emotion induction and a cognitive dissonance instating task. This is especially uncertain given the findings of Farb et al. (2007) that show far less pervasive effects in experiential focus in novices compared to those with 8 weeks of mindfulness training.

As in Study 1, we still predicted the same hypothesis regarding negative emotion, H1a: NDM would significantly reduce negative emotion reactivity on both measures of responding more than in participants receiving a control visualization. It was unclear whether the cognitive dissonance would be strong enough to counter the normal effects, leading to the alternate hypothesis, H1b: there would be no significant differences in negative emotion responding between participants in the NDM and control condition. Likewise, we considered two hypotheses for the cognitive dissonance task. The first hypothesis, H2a, predicted that NDM would significantly reduce cognitive dissonance discomfort more than a neutral control visualization. The second hypothesis, H2b, predicted that NDM would not lead to any such differences compared to the control condition.

Study 1: NDM and Negative Emotion Reactivity

Methods

Participants

Participants in Study 1 were 40 undergraduate students (33 females, 7 males, average age = 25.2 years) at a California State University. Participants received course extra credit in their psychology class for participation.

Procedure

Participants were randomly assigned to either a NDM condition or a neutral imagery visualization that served as the control condition. Both conditions were not told anything about the content of their meditations, but were simply told that they would be guided through a meditation, so as to minimize demand characteristics. The NDM we used in our experiment was written by Kelly Werner, Ph.D., a clinical psychologist, and researcher at Stanford University (See Appendix A). The control group received a 20 minute visualization involving neutral imagery. This included visualizing parking lots, bookstores, drugstores, trains and other neutral scenes (See Appendix B). Participants were split into different classrooms based on condition. They were guided through their respective meditation or visualization by a live experimenter. I outline below the content of the NDM used in our study.

The essential features of NDM that we used are as follows: (1) encouraging the setting aside of the objects or "contents" of awareness, (2) introspecting in an attempt to search for and find the self, (3) developing the insight that there is no stable entity of self constituted by content, (4) inquiring further what the nature of one's self is if one is not content, and (5) realizing that this nature is awareness. To concretize these core features, below I quote excerpts from our meditation to illustrate each feature.

(1) Participants are invited to set aside objects of awareness or "contents" of awareness:

> …I invite you to relax your thinking about yourself, put aside your ideas, images, and memories, and just be open to your experience here in this room…

(2) The critical distinguishing feature of Nondual meditation from mindfulness is a focus on introspection into the self and trying to find the self:

> Now, in this moment right here, I invite you to look at something in yourself. Right now in this actual moment I'd like you to look for yourself. What is it that is actually you? What is the real you? Find out where this thing called self is. Can you find it? What do you experience when you try to find yourself?

(3) The insight offered from Nondual meditation is that there is no stable entity defined by its contents that comprises a self:

> What do you find? Most people get a bit confused. They can't quite find it, but something tells them it is here. I know it is here…but I can't find it. There is a sense of self…but can you actually find a stable entity of self? If you really look…you can't actually find this thing called self. If you look with your own being, the currency of own existence…not your thoughts…what is it that is actually you?

(4) Still, the individual is encouraged to see that if one is not the contents of one's mind or any narrative or autobiographical self in terms of identity, that what is she?

> When you are not thinking, what is the experience of you? ….. Are you your physical body? Are you your feelings? Are you your thoughts? Are you your opinions? Are you your personality? Are you your beliefs? Are you your past experiences? Are you your projected future? … is this really what makes you you?

(5) The Nondual meditation guides the participant to view her relation to the self not in terms of a self with identity or narrative, but rather as awareness:

> What is it that you actually are? There is something that stands in the midst of and simultaneously prior to your thoughts, feelings and sensations. Because your thoughts come and go and they change, and your feelings come and go and they change, and your experiences come and go and they change. A whole lifetime can come and go. Your thoughts change and you remain. Your emotions change and you remain. Yet at the core of you, you always remain.
> …

> There is something that is prior to all of this flux. This constant change of thoughts, feeling, emotion, defining oneself by the past…what you have achieved and lost, or the future…what you might attain. If you start to just very simply feel into your experience…you will see all of these things come and go. Yet, it is all being recognized. What is it that recognizes all of your feelings, all of your mind-states, all of your striving, all of your struggles, and all of your successes? What is it that records all of that? What is it that notices all of that? You start to come to something more primary than this constant flux—up and down, good and bad. And there is this very simple, very clear awareness.

(6) Finally, the Nondual meditation uses repetitive words to help participants disidentify with the contents of their mind and enter into an awake state of awareness.

In Study 1 we employed a 2 (condition) x 2 (block/time) design. We utilized a negative emotion induction task to measure negative emotional reactivity. This task involved a repeated induction of threatening contents against the self-system that adapted a task used by Goldin et al. (2009). Participants were presented with a set of 50 audio clips of negative and neutral statements and were told to imagine a close other or someone they hold in high regard speaking these statements to them.

The negative statements were of two types: personally critical negative statements and general negative statements. Personally critical statements were negative statements targeted at one's behavior, personality, or character (e.g., "No one is drawn to you;" "People have said unpleasant things about you"). General negative statements were negative without targeting the individual (e.g., "She drank a cup of phlegm;" "The school burnt to the ground"). Neutral statements (e.g., "A watch tells time;" "You greet people") served as a control with the expectation that there would be no significant drop in neutral ratings pre- and post-intervention. We also used the neutral statements to ensure participants were listening carefully to statements and not automatically rating

statements as negative. After each audio clip, participants rated how negative they felt on a scale of 0 to 10.

Participants first received this negative emotion induction at baseline (Block 1), followed by a 20 minute NDM or control visualization manipulation. This was followed by another negative induction of a similar set of 50 audio clips with the same instructions (Block 2, reinstatement). We compared negative emotion ratings in Block 1 and Block 2 to measure changes in negative emotional reactivity pre- and post-intervention. Participants concluded by filling out a form for payment purposes.

Data Analysis

Participants who failed to follow instructions or left more than 25% of all responses blank were excluded from data analysis. Participants who met these criteria, but failed to answer more than 25% of a particular response type were excluded from analyses for that specific set of responses. Under these criteria, 1 participant was excluded for leaving more than 25% of all questions blank, while 4 participants were excluded for just neutral ratings.

All analyses were conducted using SPSS statistical analysis software.

Results

Personally Critical Statement Responses

I conducted a repeated measures ANOVA with participants' personally critical negative emotions ratings as the dependent measure. Time/block (baseline vs. post-intervention) ratings was the within-subject predictor, and the condition (control vs. NDM) was the between-subject predictor.

I found a significant main effect of time/block (baseline vs. post-intervention), $F(1,37) = 9.58$, $p < 0.01$, indicating that participants reported lower negative emotion to personally critical statements in post-intervention than in baseline, M's = 5.97 vs. 6.61. I did not find a significant main effect of condition, $F(1, 37) = 3.13$, $p = 0.085$, with participants reporting less negative emotion in the NDM condition than in the control condition, M's = 5.73 vs. 6.86. Importantly, we found the predicted time/block X condition interaction, $F(1, 37) = 6.58$, $p = 0.015$. Independent sample t-tests confirmed that in the control condition, participants' negative emotion reports did not decrease post-intervention vs. baseline, $t(19) = 0.679$, $p = 0.506$, M's = 6.91 vs. 6.80, but participants in the NDM condition reported significantly lower negative emotion post-intervention vs. baseline, $t(18) = 3.01$, $p = 0.008$, M's = 5.15 vs. 6.31.

General Negative Statement Responses

I conducted a repeated measures ANOVA with participants' general negative emotion ratings as the dependent measure. Time/block (Pre-intervention vs. post-intervention) ratings was the within-subject predictor, and the condition (control vs. NDM) was the between-subject predictor.

I found a significant main effect of time/block (baseline vs. post-intervention), $F(1,37) = 12.67$, $p < 0.01$, indicating that participants reported lower general negative emotion post-intervention than pre-intervention, M's = 4.02 vs. 4.59. I also found a significant main effect of condition, $F(1, 37) = 6.61$, $p = 0.01$, with participants reporting less general negative emotion in the NDM condition than in the control condition, M's = 3.51 vs. 5.11. More importantly, we found the time/block X condition interaction,

F(1,37) = 6.84, p = 0.01. Independent samples t-tests confirmed that in the control

condition, participants' general negative ratings did not significantly decrease

post-intervention vs. baseline, t(19) = 0.654, p = 0.521, M's = 5.03 vs. 5.18, but

participants in the NDM condition reported significantly lower general negative emotion

post-intervention vs. baseline, t(18) = 4.472, p = 0.000, M's = 3.02 vs. 4.00.

Neutral Statement Responses

I conducted a repeated measures ANOVA with participants' neutral negative

emotion ratings as the dependent measure. Time/block (Pre-intervention vs.

post-intervention) ratings was the within-subject predictor, and the condition (control vs.

NDM) was the between-subject predictor.

I found a main effect of time/block (baseline vs. post-intervention), F(1, 33) =

8.36, p = 0.01, with means for baseline vs. post-intervention, M = 0.56 vs. 0.30. I did not

find a significant main effect of condition, F(1, 33) = 0.000, p = 0.988, with means for the

NDM condition vs. control condition, M = 0.43 vs. 0.43. Importantly, in contrast to

negative emotion statements, for neutral statements, I did not find a time/block X

condition interaction, F(1, 33) = 1.26, p = 0.271. Though it should be emphasized that

there was no neutral rating interaction, I did run independent sample t-tests which found

no significant drop in the control condition post-intervention vs. baseline, t(17) = 1.212, p

= 0.24, M's = 0.35 vs. 0.51, but participants in the meditation condition experienced

significantly lower general negative affect post-intervention vs. baseline, t(16) = 2.96, p =

0.009, M's = 0.25 vs. 0.61.

Though the neutral ratings surprisingly showed a significant drop in the NDM condition, the mean drop for the neutral ratings ($M = 0.36$) was lower than the mean drop for the personally critical ($M = 1.16$) and general negative statements ($M = 0.98$). Also, as expected, the means for the neutral ratings (NDM and control M's = 0.43 and 0.43) were significantly lower ($p < 0.05$) than personally critical (M's = 5.73 and 6.86) and general negative statements (M's = 3.51 and 5.105). These significantly lower scores for the neutral condition (with the baseline conditions average less than 1 on a 0-10 point scale) confirm that our participants were correctly listening to the statements and reporting negativity.

Discussion

In summary, in Study 1, the NDM condition showed significantly greater drops than the control condition in both types of negative emotions ratings, those for personally critical statements and for general negative statements. This supports our conceptualization that a shift from self-as-content to self-as-awareness can diminish negative emotional reactivity, and supported our hypothesis for Study 1, H1, that NDM would significantly reduce negative emotion reactivity compared to the control visualization.

The NDM condition also showed an unexpected significant drop in neutral ratings. However, the mean drop for neutral ratings ($M = 0.36$) was lower than the mean drop for personally critical statements ($M = 1.16$) and general negative statements ($M = 0.98$), suggesting the neutral drop was comparatively small, especially given that this was a mean drop of 0.36 on a 10 point, 1 unit increment scale. Importantly though, this

significant drop in neutral ratings was not accompanied by a significant interaction effect, which was, however, found for personally critical and general negative ratings.

These findings suggest that in the paradigm in Study 1, NDM and its shift from self-as-content to self-as-awareness were able to significantly reduce negative emotional reactivity. Because all participants were novices, this suggests that NDM and a shift to self-as-awareness may have beneficial effects on negative emotion for individuals without any prior meditation experience.

Study 2: Negative Emotion Reactivity and Cognitive Dissonance Discomfort

Methods

Participants

Participants in Study 2 were 37 (27 females, 10 males; average age = 20 years) undergraduate students at a local community college. Participants received credit in their psychology research methods class and also a $10 gift in exchange for participation in the study.

Procedure

Study 2 sought to replicate the negative emotional reactivity task (Task 1) in addition to a second task measuring cognitive dissonance discomfort (Task 2). Study 2 replicated the same format as Study 1, only the cognitive dissonance task was interspersed with Task 1 (See Figure 4). Task 2 utilizes a free-choice paradigm task (Brehm, 1956) used extensively in dissonance literature. Recent adaptations of this paradigm (e.g., Heine & Dehman, 1997; Kitayama, Snibbe, Markus, & Suzuki, 2004; Steele, 1988; Steele, Hopp, & Gonzales, 1986) had participants rate 10 music CDs.

Participants were then given a choice of their 5th and 6th ranked albums, and later asked to re-rate the 10 CDs. Cognitive dissonance in this paradigm was defined as the post-decision discomfort arising from having the chosen CD but not the other, and discomfort is inferred by dissonance reduction/cognitive distortion, measured by spreading in ratings of the desirability of alternatives pre- and post-decision. That is, the participant's initial ratings will have a given difference between their 5th and 6th choice; but following the dissonant decision between the 5th and 6th choice, the participant may attempt to reduce dissonance by rationalizing to oneself that she values the chosen item more and/or values un-chosen item less. This would lead to larger difference between 5th and 6th choice ratings when the participant is given a chance to re-rate the CDs. This spreading in scores can be used as measure of dissonance discomfort.

Because CDs are now obsolete with digital music stores, we adapted this free-choice paradigm to use $10 gift cards to big brand and popular stores in place of CDs. This adapted free-choice paradigm task was covertly disguised as bonus gift we were offering the students for letting our group visit their class and have them participate. Participants were told that in exchange for participating they would receive a $10 gift card. We told the participants that we had gift cards from 10 different stores (e.g., Starbucks, Itunes, Borders), but that we only had a limited stock from each stores. As a result, we told participants that we wanted to get their preferences for these 10 gift cards in order to give them the best possible match. To begin, participants filled out a questionnaire where they rated these 10 gift cards on 118 mm line scale in terms of desirability. Based on their ratings they were then to rank the 10 gift cards in order of

desirability from 1 to 10 (see the Appendix C). Once participants made their ratings, this gift card questionnaire was collected. One of the two experimenters left the classroom with the questionnaires under the premise that the experimenter would determine the best options for the participants. The experimenters really selected each participant's 5th and 6th ranked preferences, and set aside paper slips for each of these choices to offer to the participant later in the study.

Participants then began Task 1, the negative emotion induction task. Block 1 of the negative emotion task proceeded as in Study 1, and this was also followed by the manipulation meditation or visualization. However, in contrast to Study 1, following the manipulation, the dissonance inducing choice was introduced prior to Block 2 of the negative emotion task. The experimenter who left the room returned and told participants that based on the stock and tallying up the class' preferences, we would be able to offer each person a choice between two gift cards. Each participant was then returned their questionnaire with the two paper slips for two gift cards. Participants did not know that these choices were covertly chosen to be their 5th and 6th choice. Participants were told to mark which gift card they wanted.

Once this choice was made, the experiment resumed with Block 2 of the negative emotion task. Once Block 2 was complete, participants then filled out a final questionnaire to have participants re-rate the gift cards. The intent of this re-rating was disguised under the premise that we were interested in consumer choices. We told participants we wanted to know whether they thought specifically about the particular items they could buy with each gift card or whether they simply made their choice

because of the brand name (see Appendix C). Participants were provided a list of potential items they could purchase from each store. This strategy was adopted from previous free-choice tasks involving CDs, where participants were reminded of the specific songs on each CD album (Steele, Spencer, & Lynch, 1993). After seeing this list, participants were then asked to re-rate the items. This re-rating was used to determine spreading as a measure of cognitive dissonance discomfort.

Data Analysis

Participants who failed to follow instructions or left more than 25% of all responses blank were excluded from data analysis. Participants who met these criteria, but failed to answer more than 25% of a particular response type were excluded from analyses for that specific set of responses. Under these criteria, five participants had to be excluded from data analysis for leaving blank a significant portion of all negative emotion measures, and an additional participant had to be excluded from the cognitive dissonance analysis for failing to follow instructions for this task.

All analyses were conducted using SPSS statistical analysis software.

Results

Personally Critical

I conducted a repeated measures ANOVA with participants' personally critical negative emotions ratings as the dependent measure. Time/block (baseline vs. post-intervention) ratings was the within-subject predictor, and the condition (control vs. NDM) was the between-subject predictor.

I did not find a main effect of time/block (baseline vs. post-intervention), F(1, 30) = 4.118, p = 0.051, with means for pre-intervention vs. post intervention, M = 6.95 vs. 6.32. I did not find a significant main effect of condition, F(1, 30) = 0.794, p = 0.38, with means for the meditation condition vs. the control condition, M's = 6.92 vs. 6.34. I did not find a time/block X condition interaction, F(1, 30) = 0.004, p = 0.95.

General Negative

I conducted a repeated measures ANOVA with participants' general negative emotion ratings as the dependent measure. Time/block (Pre-intervention vs. post-intervention) ratings was the within-subject predictor, and the condition (control vs. NDM) was the between-subject predictor.

I did not find a main effect of time/block (baseline vs. post-intervention), F(1, 30) = 0.044, p = 0.835, with means for baseline vs. post-intervention, M's = 5.28 vs. 5.23. I did not find a significant main effect of condition, F(1, 30) = 2.329, p = 0.14, with means for the NDM condition vs. the control condition, M's = 5.81 vs. 4.69. I did not find a time X condition interaction, F(1, 30) = 1.34, p = 0.26.

Neutral Statement Responses

I conducted a repeated measures ANOVA with participants' neutral negative emotion ratings as the dependent measure. Time/block (Pre-intervention vs. post-intervention) ratings was the within-subject predictor, and the condition (control vs. NDM) was the between-subject predictor.

I no found a significant main effect of time, F(1,30) = 0.836, p = 0.37, with means for baseline vs. post-intervention, M's = 0.94 vs. 0.81. I did not find a significant main

effect of condition, $F(1, 30) = 1.60$, $p = 0.22$, with means for the NDM condition vs. the control condition, M's $= 0.68$ vs. 1.07. I did not find a time X condition interaction, $F(1, 30) = 3.204$, $p = 0.084$.

Cognitive Dissonance Discomfort

I excluded two participants who failed to follow the directions about how to rank the gift cards, one of whom was already excluded from the above analyses, leaving, $n = 14$ for the control condition, and $n = 17$ for the NDM condition. I ran an independent samples t-test with the spread of alternatives measure as the dependent variable and condition as an independent variable. I did not find a significant difference, $t(29) = 0.100$, $p = 0.21$ (2-tailed), M's $= 33.82$ vs. 17.21.

Discussion

Study 2 found null results for differences between groups in drops in negative emotional responding and also for any significant differences between groups for cognitive dissonance discomfort. This rejected the main hypotheses H1a and H2a, and affirmed alternate hypotheses H1b and H2b.

While Study 1 found that a single NDM could significantly reduce negative emotion responding in meditation novices, Study 2 found that this effect was lost when participants were simultaneously presented with a cognitive dissonance instating task. These findings suggest that there may be a fragility to the beneficial effects of NDM on negative emotion in novices, such that it could not withstand the introduction of the cognitive dissonance task.

I suggest that the reason for this fragility may be the extent of practice one has in meditation, which influences specific effects NDM may have on processes associated with distinct modes of self-focus (Farb et al., 2007). Processes associated with experiential focus (EF) increase momentary awareness of the self in the present and are associated with inhibition of cognitive elaboration of thoughts and mental events about the past and future (Farb et al., 2007). In contrast, processes associated with narrative focus (NF) deal with cognitive elaboration of mental events, and as a result decrease attention toward the present moment (Farb et al., 2007). Farb et al. (2007) found that there significant differences in activations of regions associated with EF and NF between meditation novices and those with as little as 8 weeks of mindfulness training practice. While those with 8 weeks of practice showed a decoupling of NF and EF associated regions, which are habitually integrated, novices showed less robust changes largely isolated to reductions in NF associated regions. As a result, effects of meditation on present moment experience in novices works by largely inhibiting narrative thoughts and elaboration.

I suggest that the beneficial effects for novices that NDM had on negative emotion in Study 1 may work largely through decreasing narrative activity or one's focus on the narrative self. By deactivating a narrative self, a novice may be able to decenter herself from personal threats and negative emotion targeting a narrative sense of self. However, this effect that relies largely upon decreases in narrative activity may be far less resilient to negative threats and distraction than for individuals with more meditation

training and consequently a robust effect involving a dissociation between NF and EF associated processes.

In Study 2 in particular, the addition of the cognitive dissonance that introduced difficult choices between closely rated gift cards likely introduced strong narrative thoughts for participants. For instance, participants may have begun to think about what they would buy for themselves or others in the future. These narrative thoughts involving a dissonant decision may have been so strong that they countered any effect the NDM would have had on decreasing narrative thought and increasing attention on momentary present experience and awareness.

General Discussion

In summary, Study 1 found that Nondual meditation and its shift from self-as-content to self-as-awareness could significantly reduce negative emotion responding in participants with little or no meditation experience. Study 2 found that the introduction of cognitive dissonance task obliterated this effect and also showed no significant reduction in dissonance discomfort resulting from a shift to self-as-awareness.

Study 1 suggests that the identification of the self with awareness can enhance adaptive emotional responding and help individuals take critical remarks and threats less personally. Negative emotion has been shown to chiefly result through a process of appraisal in reference to the self (Lazarus, 1993; Lazarus & Smith, 1988). As a result, practices that enable a shift toward self-as-awareness may potentially serve as a tool for emotional well-being by directly impacting this self-referential process.

Specifically, there may be emotional benefits for being able to adaptively increase one's focus on self-as-awareness in contrast a narrative or autobiographical self. Self-as-awareness which increases one's focus on ipseity or the minimal, core self may decrease the emotional generative process associated with a narrative self that projects into the past or future. This was supported by Study 2 which found that the salutatory effects in Study 1 were lost when participants also underwent a cognitive dissonance inducing task. The cognitive dissonance task that likely led to thoughts about one's future purchases may have reinstated a strong narrative focus. Such beneficial effects may be especially fragile for participants with not much meditation practice.

While more recent is needed, support of these findings would suggest that integration of self-as-awareness may valuable tools in therapies. Identification of the self with awareness already exits as a core feature of Acceptance and Commitment Therapy (ACT; Hayes, Luoma, Bond, Masuda, & Lillis, 2006; Hayes & Pierson, 2005) with its use of "self as context" or "the observing self." The integration of practices that could more directly focus on identification of the self with awareness could have important implications for society and mental health.

Limitations and Future Directions

One of the limitations of this research study was the attempt to test both negative emotional responding and cognitive dissonance in one study as a result of desires for efficiency and cost. A more ideal research project could isolate these two variables in separate studies.

Also, such research could benefit from studies on various populations to test if the results in Study 1 can be generalized. An important caveat is that these studies were done on undergraduates at state and community colleges in the Bay Area in Northern California. Students of this region may have had more exposure to the idea of meditation that may have affected results differently than individuals of different regions in the US and different cultures. If similar positive results are found in future research on NDM, it would be important to attempt to test these findings across different populations.

A concern that may be raised with the findings in Study 1 is that participants may have been susceptible to demand characteristics. In this study, we were not able to include questionnaires on social desirability, so we cannot absolutely rule out this possibility. However, I suggest that the results we found were likely not the result of social desirability for two reasons. Firstly, both conditions were portrayed as meditations, and participants did not know anything about the contents of the meditations beforehand. For desirability to come into effect, participants would have to guess they were in the control or meditation condition and adjust responses accordingly.

More importantly, this can likely be ruled out because of the results we see from Study 2. Study 2 retained the same structure as Study 1 with the insertion of the cognitive dissonance task. In Study 2, the positive results for negative emotional responding were obliterated. If demand characteristics were responsible for the results in Study 1, it would likely be that Study 2 would replicate these findings for negative emotional responding. However, Study 2 found null results for negative emotional

responding and cognitive dissonance. This could not be explained by demand

characteristics. Nevertheless, future research can best settle these uncertainties.

Future work should focus on concretizing a single formulation that can extract the

essential features of Nondual teachings and practices. If certain features are difficult to

formally describe then such limitations should be acknowledged. Without this, these

formulations run the risk of ignoring central aspects of these practices that may be

otherwise lost, as may be argued has been partly the case for mindfulness in the West

(Chambers, Gullone, & Allen, 2009). More refined formalizations would certainly be

valuable when studying experts in these traditions.

Additionally, one of the more promising areas of future research would be to test

the effects of more long term NDM practice. For instance, if an 8-week NDM course

was developed analogous to Mindfulness Based Stress Reduction (MBSR; Kabat-Zinn,

1990), future research could look at the effects of NDM practice on resilience to various

threats such as negative emotional intensity or narrative focus that may have been

particularly influential in Study 2. Additionally, such a program could provide a valuable

comparison tool for comparing mindfulness meditation with other forms of meditation.

Especially relevant would be research testing if altered experiences of self and direct

awareness in NDM would differ in the strength or speed by which a participant develops

beneficial changes in metacognitive insight and in negative affective responding.

Future research would also benefit from studies of those with expert training in

Nondual meditation practices. The conceptualization for NDM presented here was meant

to be one that would be relevant if a participant can fully engage with the process and

direct attention accordingly and develop Nondual insight and experiences. It is unclear to what extent participants with little or no meditation experience participating in NDM for the first time actually achieve these results. As a result, though this conceptualization may still be applicable for novices, this conceptualization may be more relevant to studying those with more extensive NDM training who are able to enter such states. Additionally, it would be valuable to study the differences between those with different degrees of training – from novices to experts with 10,000 or more hours of training – and also to see if different conceptualizations for varying levels of expertise and their resulting experiences are necessary.

Finally, in addition to the central focus on emotional responding, this paper was in part directed at the potential benefit that may be derived from integrating developments from neuroscience and cognitive science with phenomenological descriptions of meditation. However, the conceptualizations outlined here represent just a starting point for conceptualizing meditations from a Nondual tradition. A rich and larger body of literature exist on the topic of integrating phenomenological approaches and neuroscience stemming from Varela's (1996) "neurophenomenology", and research developments that have built on this earlier work on meditation, neuroscience, and consciousness (Lutz, Dunne, & Davidson, 2006; Lutz & Thompson, 2003). A fuller, more detailed engagement with this literature in conceptualizing Nondual meditations and practices is possible, but was beyond the scope of this paper. Future research should continue to refine these conceptualizations and engage in this exchange with neuroscience and neurophenomenology.

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Acknowledgments

Figures

Figure 1

In Study 1, participants who were in the NDM condition showed a significantly greater reduction in ratings in response to personally critically negative statements than participants in the control condition ($p < 0.05$).

Study 1 (Continued)

Figure 2
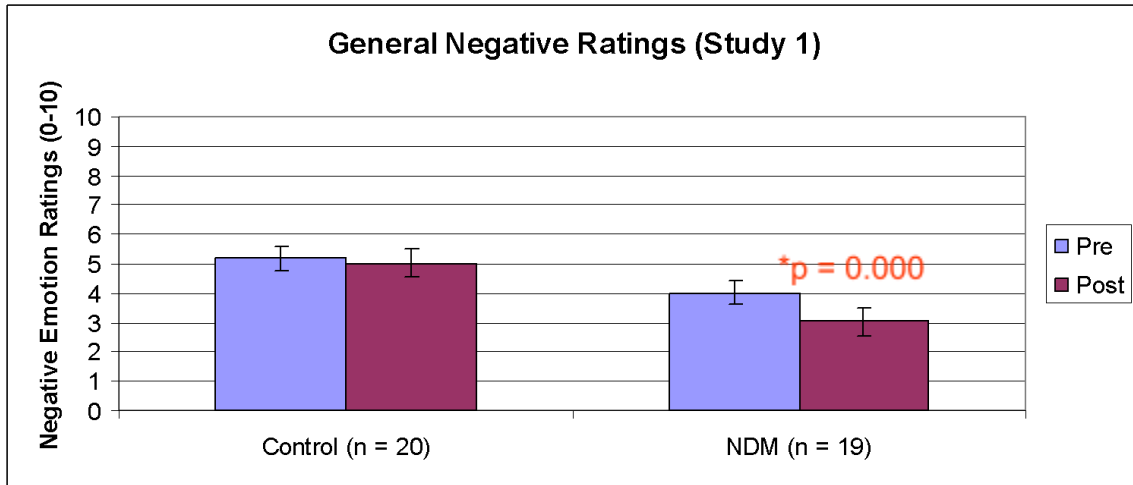
In Study 1, participants who were in the NDM condition showed a significantly greater reduction in ratings in response to general negative statements than participants in the control condition (p < 0.01).

Figure 3
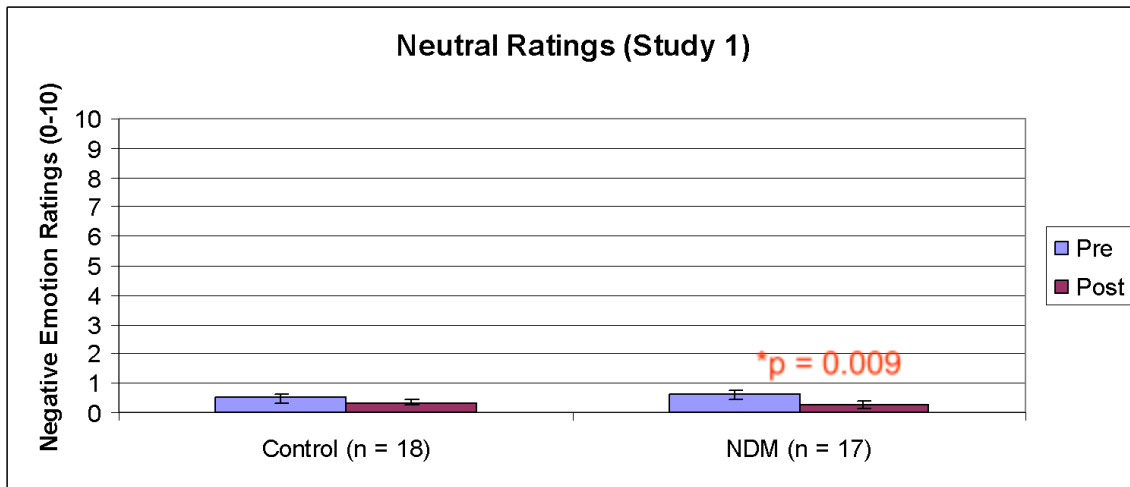
In Study 1, participants who were in the NDM condition showed a significantly greater reduction in negative ratings in response to neutral statements than participants in the control condition (p < 0.05). However, it is important to emphasize that there was no neutral ratings X group interaction, in contrast to both the personally critical and general negative statements. Additionally, the mean drop for these neutral statement ratings (M = 0.36) was comparatively lower than the mean drop for personally critical statements (M = 1.16) and general negative statements (M = 0.98). This suggests the neutral drop in the NDM condition was comparatively small, especially given that this was a mean drop of 0.36 on a 10 point, 1 unit increment scale.

Figure 4
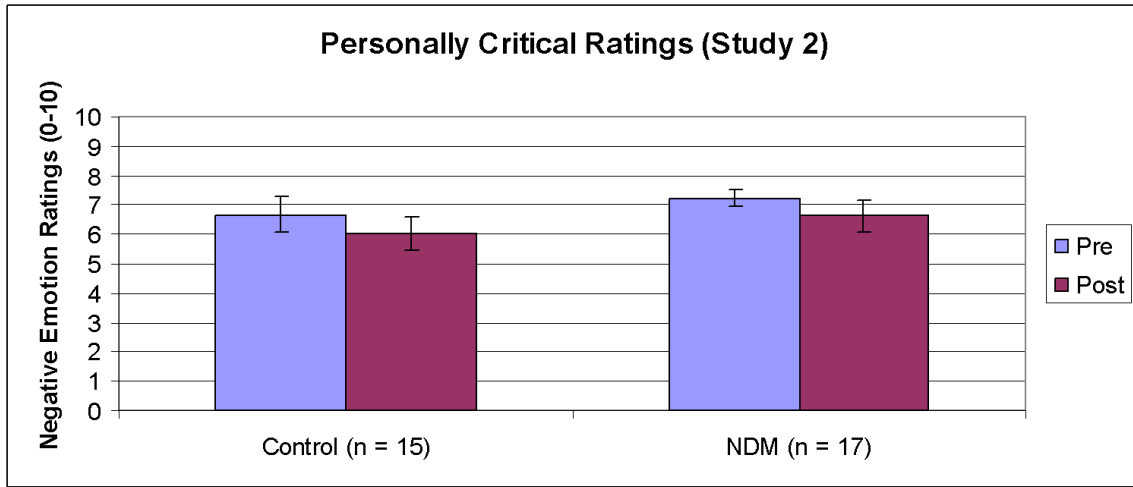
Personally Critical Ratings (Study 2)

In Study 2, no significant drops were found between groups in negative emotion ratings in response to personally critically negative statements.
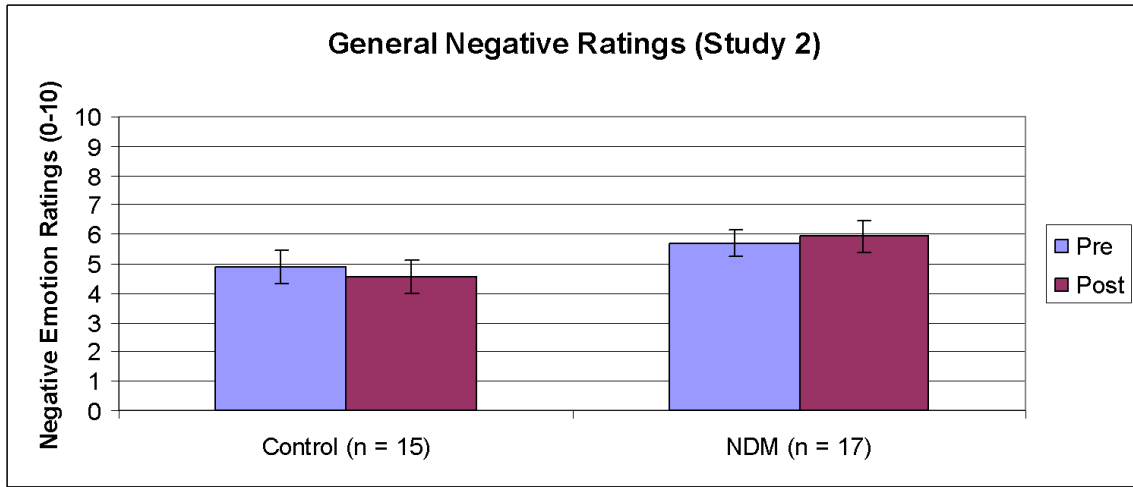
Figure 5

In Study 2, no significant drops were found between groups in negative emotion ratings in response to general negative statements.

Figure 6
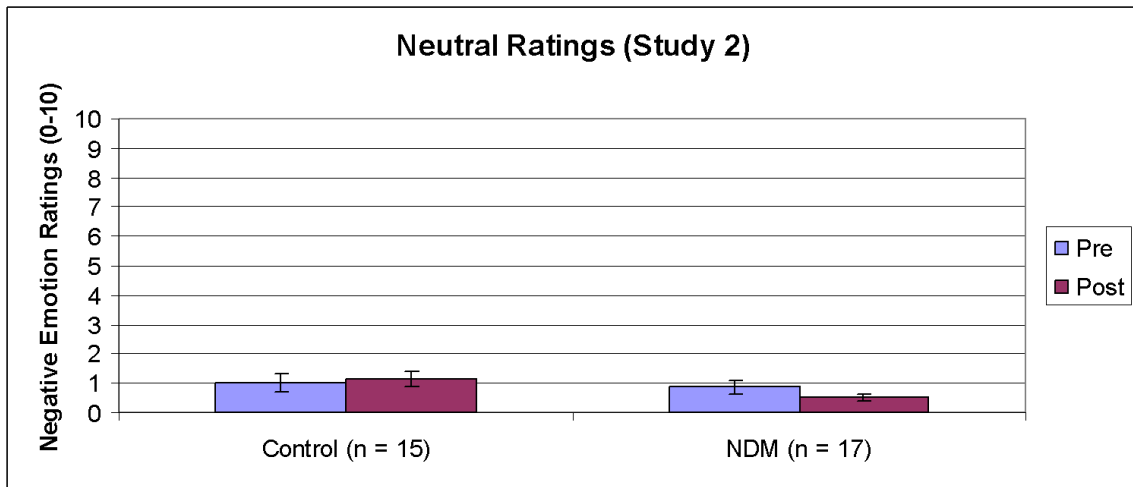
In Study 2, no significant drops were found between groups in negative emotion ratings in response to general negative statements. Importantly, means for neutral ratings shown here were significantly lower than means for personally critical and general negative statements (p < 0.05).

Figure 7

Cognitive Dissonance Discomfort (Study 2)
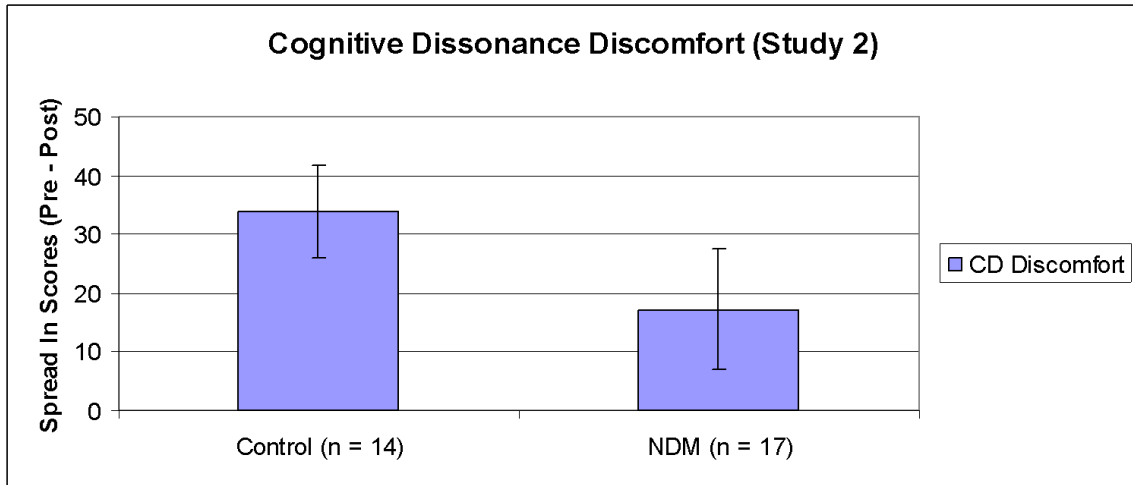
In Study 2, no significant difference was found between conditions in measures of cognitive dissonance discomfort in response to a free-choice paradigm task involving a choice between gift cards.

Figure 8

Nondual meditation: Effects on Negative Emotional Reactivity (Task 1) and Cognitive Dissonance Discomfort (Task 2)

Preparation, & instructions

Appendix A

15 minute Nondual Meditation

CD task – Rate 10 gift cards on scale 1 - 100   **1 min**

Take a comfortable position. Let your eyes close partially or completely—however you can be the least distracted and really engage with these instructions. I'd like to invite you to just relax the body right now…Just be at ease…Natural. Just rest the body as you sit here; Also, let the mind just also rest

10 Neutral statements
20 Negative personally critical statements
20 General negative statements

2 sec still face
4 sec statement
3 sec rumination
3 sec response time
+
12 seconds total trial time
50 trials X 12 seconds = 10 mins

BLOCK 1: Uninstructed Responding

Bringing your attention to the breath…feel how your abdomen expands and contracts. Pushing the clothes forward and then falling back. No need to change the breath as you notice it. Relax into a space where you are naturally watching it rise and fall. Feel the breath go in on the inhale and out on exhale.

Rating (after every statement)
How negative do you feel right now?
1 2 3 4 5 6 7 8 9 10
Not   Moderate   Very

12.5 min

Now gently let go of any tension you have in the body. Let go of any kind of tension in the shoulders, the neck, the jaw, the face. Release any tension you have in the chest, the abdomen, the arms, the thighs, the calves, and the feet. Now ask yourself, "Can tension be let go of even a little bit more?" And now let go, even a little bit more.

50%   50%

Disidentification from Self Meditation   Visualize parking lot/bookstore meditation   **15 min**

Throughout this exercise you'll be asked to consider yourself in new ways and look beyond some of your current conceptions of yourself. I invite you to relax your thinking about yourself, put aside your ideas, images, and memories, and just be open to your experience here in this room with an innocent mind and an innocent heart.

CD task – Choose between 5th and 6th chan...   **1 min**

Also, during this, you may notice that your mind wanders from these instructions from time to time…this is what minds do. For this exercise, as soon as you notice your mind has wandered, just also notice your breath and instructions at hand. For many, the mind wanders many many times…so again, just as soon as you notice, bring your attention back to your breath and the instructions at hand.

10 Neutral statements
20 Negative Self relevant statements
20 Negative non self relevant statements

BLOCK 2: Meditation Manipulation   **12.5 min**

Now, as you sit here… deeply allow yourself not to have to . . . control or hold . . . anything . . . let yourself simply . . .

Rating after every statement
1 2 3 4 5 6 7 8 9 10
Not   Moderate   Very

…relax the body right now…Just be at ease…Natural…Just rest the body as we sit here; Also, let the mind just also rest…No need to focus the mind in any particular way, or make the mind do anything in particular…Just allow it to rest…As you rest the body…Letting everything just come to rest in an easy natural way…As you feel this sense of being at rest

Now, in this moment right here, I invite you to look at something in yourself. Right now **CD task – Re-rate 10 gift cards**   **3 min** in this actual moment I'd like you to look for yourself. What is it that is actually you? What is the real you? Find out where this thing called self is. Can you find it? What do you experience when you try to find yourself? What do you find? Most people get a bit confused. They can't quite find it, but something tells them it is here. I know it is here…but I can't find it. There is a sense of self…but can you actually find a stable entity of self? If you really look…you can't actually find this thing called self. If you look with

your own being, the currency of own existence…not your thoughts…what is it that is actually you?

When you are not thinking, what is the experience of you? ….. Are you your physical body? Are you your feelings? Are you your thoughts? Are you your opinions? Are you your personality? Are you your beliefs? Are you your past experiences? Are you your projected future? You may think you are your opinions, beliefs, projected future, what you feel, the thoughts that go through your head, you may have some idea that the next thought actually tells you who you are. But is this really what makes you you?

What is it that you actually are? There is something that stands in the midst of and simultaneously prior to your thoughts, feelings and sensations. Because your thoughts come and go and they change, and your feelings come and go and they change, and your experiences come and go and they change. A whole lifetime can come and go. Your thoughts change and you remain. Your emotions change and you remain. Yet at the core of you, you always remain. If you are listening to me talk, what you really are is listening to me talk. You go traveling and there you are. You come home and there you are. You are upset at not getting something you want as a child--and you are there, you drive your first car--and you are there, you watch 9/11 and you are there. So, what is it that you really are?

There is something that is prior to all of this flux. This constant change of thoughts, feeling, emotion, defining oneself by the past…what you have achieved and lost, or the future…what you might attain. If you start to just very simply feel into your experience…you will see all of these things come and go. Yet, it is all being recognized. What is it that recognizes all of your feelings, all of your mind-states, all of your striving, all of your struggles, and all of your successes? What is it that records all of that? What is it that notices all of that? You start to come to something more primary than this constant flux—up and down, good and bad. And there is this very simple, very clear awareness.

Now, as you sit here… deeply allow yourself not to have to . . . control or hold . . . anything . . . let yourself simply be . . .

Just relax the body right now…Just be at ease…Natural

Just rest the body as we sit here; Also, let the mind just also rest

No need to focus the mind in any particular way, or make the mind do anything in particular…Just allow it to rest

As you rest the body…Letting everything just come to rest in an easy natural way…As you feel this sense of being at rest

Just notice the sense of being awake, or being alert and aware…Here you are sitting here awake and aware; not asleep but awake;

effortlessly awake; effortlessly aware…You did not create this sense of being aware, it is simply here, this sense of wakefulness,…awareness

And just rest as this simple sense of being aware of being awake, relaxing into this simple ease of being, the simple ease and naturalness of awareness… of wakefulness…just resting… naturally…peacefully

With nothing to do, and nowhere to go and nowhere to get; other than to just be present here in this wakefulness; just allowing everything to be as it is; just allowing everything to simply be at rest; and to flow however it may flow; to let thoughts appear and disappear; to let feelings arise and subside; to let all of the sensations of the body flow freely

With no need to alter them in any way. No need to control experience or change experience. Simply allowing everything to be as it is. And you remain naturally, effortlessly, easefully awake and aware

No matter what thoughts or feelings appear, just allow them to be there; allow them to move and dance and change, however they do, whatever way they appear, you just remain restfully aware and awake noticing the dance. Just at ease.

Letting the body be as it is, letting the breath be as it is, letting the air that surrounds you and the sounds that surround you; letting everything simply be as it is.

Resting again and again as the simple sense of being aware. The simple sense of just being.

Feeling the ease of naturalness; the ease of your own being.

The ease and naturalness of your own sense of being awake.

With eyes opened, just letting yourself see the world from this simple sense of wakefulness and ease.

Letting all of the sounds and sights just register in this simple spacious sense of openness and awareness.

Appendix B

Neutral Control Visualization

Close your eyes
Keep your feet flat on the floor and your spine straight. It is very important that you keep your eyes closed throughout the whole exercise.
Please focus on the instructions and do you best to keep your attention on the instructions. This is a visualization exercise, and please do your best to try and visualize each thing that these instructions suggest.
Take a deep breath in
And breath out.

During this exercise, you may notice that your mind wanders from these instructions from time to time…this is what minds do. For this exercise, as soon as you notice your mind has wandered, just bring your attention back to the instructions at hand. For many, the mind wanders many many times…so again, just as soon as you notice, bring your attention back to the instructions at hand and try and follow the instructions as best as you can.

Now visualize the interior of a bookstore
Any bookstore that you choose, or a bookstore that you imagine
Walk down the aisles of the bookstore and imagine it's look and feel
Imagine the colors of the walls and floors
And the shape and look of the bookshelves
Bring to mind the smell of the bookstore
Imagine the sounds you might hear in that store
Visualize the check-out counters
Now look around the book-store and take it all in.
Notice the colors, shapes, and lighting that surround you.

Now think of a large outdoor parking lot 7:00
Imagine what it looks like
Visualize the type of cars you might see there
Old beat-up cars and flashier newer ones
Imagine whether there are puddles or litter in the lot
Imagine the entrance and exit of the parking lot
There may be a booth for parking payments
Now look around the parking lot and take it all in.
Notice the colors, shapes, and lighting that surround you.

Now bring to mind a train 7:01.25
Imagine what it looks like from the outside
Now picture how it looks from the inside
Imagine how the train seats would feel and what the windows would look like

Look down at the floor and imagine what it looks like
Bring to mind the smell of the train
Listen to the sounds you would hear in that train
Imagine what the train driver's voice would sound like announcing the stops over the intercom
Now look around the train and take it all in.
Notice the colors, shapes, and lighting that surround you.

Now bring to mind an office building elevator 7:03.22
Imagine what the elevator buttons would look like
Picture the color and texture of the walls and floors of the elevator
Look up to the ceiling and imagine what it looks like
Imagine what the doors look like and what they would sound like when they open and close
Bring to mind how it feels like to travel in the elevator
Now look around the elevator and take it all in.
Notice the colors, shapes, and lighting that surround you.

Again, you may notice that your mind wanders from these instructions from time to time…. For this exercise, as soon as you notice your mind has wandered, just bring your attention back to the instructions at hand. For many, the mind wanders many many times…so again, just as soon as you notice, bring your attention back to the instructions at hand and try and follow the instructions as best as you can.

Now visualize the inside of a drugstore
Walk through the different aisles one by one
Imagine the soap and shampoo section with all of its different brands
Walk down the notebook and pen section, examining all the different kinds of pens…
Visualize the laundry detergent and cleaning products and mops, brooms etc
Walk through the medicine section and imagine the pharmacy counter
Visualize the checkout counter
Now look around the drug-store and take it all in.
Notice the colors, shapes, and lighting that surround you.

Now picture a full and messy garage,
imagine exactly what it looks like
Bring to mind the texture, color and look of the garage with all its contents
Imagine walking through the garage and taking a look at each article
Bikes, lamps, boxes, shoes, charirs, old computers, tools, equipment which might be lying around…
Examine each article for its color and texture
Bring to mind the smell and feel of the garage
Now look around the garage and take it all in.
Notice the colors, shapes, and lighting that surround you.

Now think of a laundry room
Picture the inside of the room, imagine the floors and the walls
See how the washer and dryer line up
Imagine the smell of the laundry room
Visualize any objects that might be lying around: laundry detergent bottles, fabric softener or dryer sheets…
Imagine where the trash can, shelves or table are located
Now look around the laundry room and take it all in.
Notice the colors, shapes, and lighting that surround you.

Now bring to mind a cluttered desk
Think of all the objects that are on that desk
Pens, papers, bills, post-it notes, coffee cup…
Bring them all to mind…
Open a drawer and visualize each object in that drawer
Imagine the chair that goes with the desk and feel how it would be to sit in that chair and at that desk
Now look around the cluttered desk and take it all in.
Notice the colors, shapes, and lighting that surround you.

Now think of a large carpet warehouse filled with different types of carpet
Imagine all the different kinds of carpets that are there
Imagine the different textures: cotton, woolen, straw-like and so on
Think of all the different colors and mixtures of colors that you might see there
Imagine walking through the corridors, looking at and feeling each carpet one by one
Now look around the carpet warehouse and take it all in.
Notice the colors, shapes, and lighting that surround you.

Now bring your mind to a gas station
Imagine the different pumps
Imagine a little convenience store and teller
Think of what the weather is like
Imagine opening your gas tanks and pumping some gas
Imagine getting in your car and driving off
Now look around the gas station and take it all in.
Notice the colors, shapes, and lighting that surround you.

Now bring to mind an urban corporate office
Imagine the look of the walls and floors
Imagine the welcome desk, the rows of cubicles and computers
Imagine how the lighting is fixed and what the floors, walls and ceiling look like
Visit one of the conference rooms and look out of the window
Examine the table and chairs of that conference room
Walk around the printer and photocopy rooms
Now look around the office and take it all in.

Notice the colors, shapes, and lighting that surround you.

Take a deep breath in. And breathe out. You are now finished with this task. When you are ready, you may open the eyes.

1 minute booster meditation
Now visualize the interior of a bookstore
Any bookstore that you choose, or a bookstore that you imagine
Walk down the aisles of the bookstore and imagine it's look and feel
Imagine the colors of the walls and floors
And the shape and look of the bookshelves
Bring to mind the smell of the bookstore
Imagine the sounds you might hear in that store
Visualize the check-out counters
Now look around the book-store and take it all in.
Notice the colors, shapes, and lighting that surround you.

Appendix C

[The following pages contain the materials and questionnaires used for the cognitive dissonance gift card task]

Name: _____

Second Gift Card Questionnaire

Instructions: When you thought about how much you wanted a gift card, *did you think about the specific item(s) you wanted to buy with the gift card, or did you just think of the store/brand-name without thinking of the specific items*? You can use the list below to remind yourself of common items that each gift card could help you buy.

Please rate yourself by making a mark on the scale:

1. Overall, when making my ratings,

|---|

I thought of the specific item(s) I wanted   I just thought of the brand/store

2. I thought of at least one or two items I wanted to use the gift card for? (Circle One)

Yes   No

Common Items for Purchase

American Eagle Outfitters: polos, shirts, jeans, dresses, skirts, hats, belts, sunglasses

Best Buy: electronics for TV and video, audio, cameras, computers, video games

Borders: fiction and nonfiction books, magazines, CDs and music albums, cards

Itunes: songs, music albums, TV shows, audiobooks, apps and games for phone

Jamba Juice: smoothies, juices, protein and nutritional bars, breads and snack foods

Netflix: DVD rentals, DVD purchases, movies streamed online, Blu-Ray movies

Starbucks: brewed coffee, espressos, Frappuccino's, teas, breakfast & snack foods,

See's Candy: assorted chocolates, brittles and toffees, nuts and chews, candy bars, pops

Subway: sub sandwiches, sandwich wraps, salads, soft drinks, chips, cookies, soups

Target: school and office supplies, shoes and clothing, bed and bath products, electronics

Please re-rate all the gift cards in response to how much you would like to own the gift card. Please indicate how you would rate these gift cards *right now, regardless of your previously reported ratings.*

|--|

extremely undesirable   extremely desirable

Target

|--|

Borders

|--|

See's Candy

|--|

Subway

|--|

American Eagle Outfitters

|--|

Netflix

|--|

Best Buy

|--|

Starbucks

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Itunes

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Jamba Juice

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