Unpacking Emotion Differentiation: Transforming Unpleasant Experience by Perceiving Distinctions in Negativity

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Abstract
Being able to carefully perceive and distinguish the rich complexity in emotional experiences is a key component of psychological interventions. We review research in clinical, social, and health psychology that offers insights into the adaptive value of putting feelings into words with a high degree of complexity (i.e., emotion differentiation or emotional granularity). According to recent research, upon experiencing intense distress, individuals who experience their emotions with more granularity are less likely to resort to maladaptive self-regulatory strategies such as binge drinking, aggression, and self-injurious behavior; show less neural reactivity to rejection; and experience less severe anxiety and depressive disorders. These findings shed light on how negative emotions and stressful experiences can be transformed by people’s emotion-differentiation skill. Besides basic research suggesting that emotion differentiation is an important developmental process, evidence suggests that interventions designed to improve emotion differentiation can both reduce psychological problems and increase various strands of well-being.

Keywords
emotion differentiation, emotional complexity, emotion regulation, psychological flexibility

As the planes hit the first of the Twin Towers on September 11, 2001, reporters canvassed the streets, stopping running locals to ask them what they were feeling (see Barrett, 2006b, p. 25). On that horrific day, two people responded very differently:

My first reaction was terrible sadness. . . . But the second reaction was that of anger, because you can’t do anything with the sadness.

I felt a bunch of things I couldn’t put my finger on. Maybe anger, confusion, fear. I just felt bad on September 11th. Really bad.

With impressive detail, the first person described a series of specific emotional experiences associated with a desire to act. The second person, by contrast, struggled to represent her feelings in specific terms and in the end was left with a general feeling of unpleasantness.

These two examples are typical of how people put their feelings into words. Theorists have proposed that people with the skill to verbally characterize their emotional experiences with granularity and detail are less likely to be overwhelmed in stressful situations (Lane & Schwartz, 1987; Lindquist & Barrett, 2008). This sequence of events, starting with the onsets of intense, distressing feelings, is represented in Figure 1. First, the act of using emotion-word labels to differentiate what is felt in a given moment conveys information about the situation and possible courses of action (Barrett, 2006b, 2012). Second, labeled emotions in turn become easier to regulate, and they either become irrelevant or facilitate a person’s personal strivings (as in the case of, e.g., anger increasing someone’s dominant stance during a confrontational negotiation; Tamir, 2009). Third, with a healthy management of emotions, a person is better able to pursue personal striving beyond the alteration or control of private...
mental events (Kashdan, Breen, & Julian, 2010). When a person struggles to manage intense distress, life aims such as trying to be a compassionate parent, becoming physically fit, or writing a book about zombies with a historical approach become secondary to emotional-regulation efforts. Subsequently, those who struggle with emotion differentiation and regulation may be prone to unhealthy, unfocused responses to feel better that are not well tailored to the situation—such as binge drinking or physical aggression.

**Thinking Seriously About Measurement**

A number of different psychological constructs describe the ability to precisely represent affective changes as differentiated emotional experiences associated with healthy emotion regulation. These are presented in Table 1. One important distinction has to do with how the constructs are measured. There is a *trait* measure of emotion differentiation for which respondents are asked to characterize their experiences in global, retrospective terms (rating items such as “I am aware of the different nuances or subtleties of a given emotion” on a 7-point scale from *does not describe me very well* to *describes me very well*; Kang & Shaver, 2004). These types of retrospective responses require people to retrieve and aggregate responses from multiple situations and tend to reflect people’s beliefs about themselves rather than provide an accurate representation of momentary emotional experiences (see Robinson & Clore, 2002, for problems with retrospective self-reports).

In our view, because emotion differentiation is a skill, it should be measured behaviorally. This requires observing how people report their emotional experiences on a moment-to-moment basis. An experience-sampling approach allows scientists to construct a performance-based measure of emotional differentiation by taking intensive repeated measurements over a longitudinal period and observing the patterns in people’s momentary subjective reports (Lindquist & Barrett, 2008). People high in differentiation report more detailed emotional experiences on different occasions and use different adjectives to represent distinct kinds of experiences (e.g., distinguishing the presence and intensity of anger, nervousness, embarrassment, guilt, and regret). People low in differentiation use the same set of adjectives to report their experiences but use them to represent only a few general feeling states. For example, they might use words like *angry, sad, and afraid* to communicate an unpleasant experience and words like *excited, happy, and calm* to describe a pleasant experience.

![Diagram](https://via.placeholder.com/150)

**Fig. 1.** Emotion differentiation as a gateway to greater well-being in a sequence of events instigated by the presence of intense negative emotions and the ability to effectively label experiences with emotion-word labels.
In this article, we focus our review on findings from studies that have used performance measures to assess emotion differentiation as a skill. Nonetheless, we should be clear that experience sampling is not the only or the optimal measurement strategy; researchers have collected ratings of felt experiences following exposure to standardized emotionally provocative images (Suvak et al., 2011) and social situations (Boden, Thompson, Dizén, Berenbaum, & Baker, 2013). One problem with all of these approaches is that to truly capture an individual's spontaneous emotion-differentiation performance, researchers must assess what is being felt without using prompts with a closed-ended list of emotion-word labels. This line of research would benefit from think-aloud approaches in real-life and simulated situations, in which individuals verbalize what they are feeling while engaged in a situation (Davison, Navarre, & Vogel, 1995).

**Evidence for the Benefits of Negative-Emotion Differentiation**

Emotion differentiation is beneficial and transcends any single psychological problem, serving as a skill that facilitates psychological and social well-being. The first study to investigate this link showed that when people were asked to report intense negative experiences and their regulatory efforts as they occurred in daily life using a diary method, those who were adept at distinguishing negative emotions reported using nearly 30% more strategies to reduce negative emotions and increase positive emotions over the course of 2 weeks compared with people low in emotion differentiation (Barrett, Gross, Christensen, & Benvenuto, 2001). These findings showed for the first time that intense negative affect, if differentiated as emotional experience, could be functional in its link to healthy emotion-regulation strategies and potentially even to psychological health. This finding stands in contrast to a large body of work showing that intense negative affect is inherently problematic (e.g., Gunthert, Cohen, & Armeli, 1999; Watson & Clark, 1984). The important difference is the specificity with which feelings are experienced. Affect (pleasant or unpleasant), in and of itself, is objectless and directionless. When affect is conceptualized and labeled with emotional knowledge, it becomes associated with an object in a specific situation, providing the experiencer with information about how best to act in that specific context. Thus, emotion differentiation improves emotion-regulation abilities. The experience and labeling of negative affect are more important than the intensity of negative affect for subsequent functionality.

Table 1. Emotion-Complexity Terminology and Methodology

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<tr>
<th>Construct</th>
<th>Definition</th>
<th>Measurement</th>
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<tr>
<td>Emotion differentiation</td>
<td>The skill of labeling experience with a high degree of specificity—sometimes defined as the skill of &quot;identifying&quot; or “recognizing” emotions with accuracy (this assumes that emotional reports have a clear, objective criterion against which accuracy can be compared, but see Barrett, 2006a), at other times defined as the skill of constructing and representing experience with a high degree of granularity (i.e., fine-grained distinctions).</td>
<td>Empirically derived indices computed from intensively repeated measurements of momentary self-reports across situations and instances; there is also a global trait self-report measure (Kang &amp; Shaver, 2004).</td>
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<td>Emotional clarity</td>
<td>Possessing a clear, unambiguous representation of emotional feeling.</td>
<td>Trait judgments using a global, retrospective self-report measure (the Mood Awareness Scale; Swinkels &amp; Giuliano, 1995; also see Palmieri, Boden, &amp; Berenbaum, 2009, for a composite scale; and the Trait Meta-Mood Scale; Salovey, Mayer, Golman, Turvey, &amp; Palfai, 1995).</td>
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<tr>
<td>Emotional complexity</td>
<td>Refers to dialecticism (experiencing positive and negative affect at the same time) and the granularity of the experience of emotion.</td>
<td>Empirically derived indices computed from intensively repeated measurements of momentary self-reports across situations and instances.</td>
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<tr>
<td>Emotional awareness</td>
<td>The complexity of propositional knowledge of emotion.</td>
<td>Empirically derived indices computed from narrative responses to hypothetical emotion-inducing scenarios (the Levels of Emotional Awareness Scale; Lane, Quinlan, Schwartz, Walker, &amp; Zeitlin, 1990).</td>
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<td>Alexithymia</td>
<td>An impoverished conceptual system for emotion and emotion vocabulary, associated with impoverished descriptions of emotional experiences and problems understanding the emotional experiences of others.</td>
<td>Trait judgments using global, retrospective self-report measures (the Toronto Alexithymia Scale; Parker, Taylor, &amp; Bagby, 2001).</td>
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Over the past decade, there have been many examples of studies linking emotion differentiation to different indices of healthy psychological functioning. Individuals who experience more differentiated negative emotions are less likely to drink excessively when stressed immediately prior to an upcoming drinking episode, consuming approximately 40% less alcohol than individuals lower in emotion differentiation (Kashdan, Ferszizidis, Collins, & Muraven, 2010). People who are better at differentiating their negative feelings are also 20% to 50% less likely to retaliate aggressively (i.e., verbally or physically assault) against someone who has hurt them (Pond et al., 2012). People who were adept at describing and differentiating their feelings also showed less activity in the insula and anterior cingulate cortex when rejected by a stranger during a computer-simulated ball-toss game (Kashdan et al., 2014). These brain regions are part of the “salience” network that represents and regulates homeostatic and homeostatic signals during a wide variety of psychological phenomena, including (but not limited to) emotion, affect, and pain (Barrett & Satpute, 2013). While there might be many ways to interpret these brain findings, they are consistent with the view that emotion differentiation is associated with downregulating activity in regions of the brain that form part of the neural substrates for negative feeling. In a sense, people with greater emotion-differentiation skills appear to show greater equanimity when confronted with the pain of rejection.

Emotion differentiation is also useful for distinguishing how people diagnosed with mental disorders understand, respond to, and relate to their emotions. Findings from two studies support this premise. First, people diagnosed with major depressive disorder not only experienced more intense distress in their daily lives but, accounting for this, also showed a lower level of negative-emotion differentiation than healthy adults (Demiralp et al., 2012). Second, people diagnosed with social anxiety disorder could be distinguished from healthy adults by their tendency to describe and label their negative emotions in a less specific, undifferentiated manner during the course of social interactions and random prompts in everyday life (Kashdan & Farmer, 2014). Other studies have shown that low emotion differentiation is relevant to autism spectrum disorders (which might be related to an inability to understand and use emotion words; Erbas, Ceulemans, Boonen, Noens, & Kuppens, 2013), eating disorders (Selby et al., 2013), and borderline personality disorder (Suvak et al., 2011). Taken together, these studies offer novel insights into the phenomenology of psychological disorders and the potential role emotion differentiation plays in emotion dysregulation.

**Interventions Targeting Emotion Differentiation**

There is preliminary evidence for the efficacy of interventions that train individuals to expand their emotion vocabulary and teach them to deploy this vocabulary in a flexible, contextualized manner. Spider-fearing individuals trained to differentiate their emotions when observing a spider (e.g., “In front of me is an ugly spider and it is disgusting, nerve-racking, and yet intriguing”) experienced less anxiety and showed a greater willingness to approach spiders (i.e., reduced behavioral avoidance) compared with people who were given other strategies, such as cognitive reappraisal (“Sitting in front of me is a little spider, and it is safe”) or distraction (e.g., “Decide on the best time to floss teeth and make this a habit”; Kircanski, Lieberman, & Craske, 2012). Moreover, at a follow-up assessment one week later, spider-fearing individuals trained to differentiate their emotions experienced less sympathetic arousal when confronted with spiders compared with individuals in the cognitive-reappraisal and exposure-only conditions. Training on emotion differentiation also improves a person’s ability to resist the biasing effects of emotion on judgments. People trained to be more detailed in describing their feelings produced moral judgments that were less influenced by incidental, intense feelings of disgust (Cameron, Payne, & Doris, 2013). These findings suggest that emotion differentiation might have its greatest impact during emotionally reactive situations, when the need for regulation is greatest.

Perhaps most impressive is evidence that teaching school-aged children to broaden their knowledge and use of emotion words (20–30 minutes per week) improves their social behavior and academic performance in school (Brackett, Rivers, Reyes, & Salovey, 2012). The brief intervention also impacted teachers: Classrooms employing this educational model were better organized and were rated by blind observers as having better instructional support for students (Hagelskamp, Brackett, Rivers, & Salovey, 2013). These findings are impressive because emotion differentiation is a simple, easily trainable skill that is frequently overlooked. Why? Because the skill naturally evolves during socialization as parents use emotion words in everyday discourse or as therapists talk to their patients. When the process is formalized, it is usually presented as child’s play. Walk into a kindergarten classroom and you will find a wall poster showcasing the facial expressions for different emotions—often portrayed in a cartoonish or silly fashion. Yet brief, targeted interventions conducted in laboratory settings suggest that, like children, adults can improve their emotional
knowledge and complexity. By doing so, adults become more proficient at healthy emotion differentiation and, in turn, better able to regulate their emotions. Healthier emotion regulation enables these adults to pursue activities most relevant to their well-being. In fact, there is some evidence that emotion differentiation improves as adults age (Carstensen, Pasupathi, Mayr, & Nesselroade, 2000), perhaps in part because of an increased vocabulary due to accrued experience.

The Mechanisms of Emotion Differentiation

Thus far, we know that emotion differentiation is linked to improved emotion regulation and a variety of better outcomes, and that a more specific use of emotion words plays some role in improving emotion differentiation as a skill. The next stage of research is to explore the mechanisms by which emotions emerge, the role that emotion words play, the mechanisms that underlie the beneficial effects of improved differentiation, and the limits of emotion differentiation (i.e., can there be too much of a good thing?).

We and others propose that emotion differentiation depends on the development of emotion concepts (Barrett, 2006b; Lane & Garfield, 2005; Lindquist & Barrett, 2008). More specifically, we propose that emotion vocabulary words are linked to the emotion concepts that people use to conceptualize their affective experiences and to transform them into more refined, granular emotional experiences. We propose that momentary experience is created as people categorize incoming sensations from the world and from the body. This categorization process creates a conceptualization of the sensations that is tied to the specific context or situation, providing specific predictions for contextualized action (and presumably adaptive coping). Because conceptual knowledge is embodied, it can also serve to modify internal sensations from the body and reduce intense negative affect, effectively resulting in improved emotion regulation (Barrett, Wilson-Mendenhall, & Barsalou, 2014). When a person has only rudimentary emotion knowledge (because his or her emotion vocabulary is restricted and underdeveloped) or does not have the working memory capacity to deploy his or her category knowledge (Barrett, Tugade, & Engle, 2004), sensory inputs will be conceptualized in a relatively undifferentiated fashion, depriving that person of the contextualized knowledge that is required to deal with the situation at hand. When a person has elaborate emotion knowledge and has been taught to use what he or she knows, then sensory inputs will be conceptualized in a relatively targeted, situation specific fashion, and that person will have the contextualized knowledge that is required to effectively deal with the situation at hand. These mechanistic hypotheses await scientific testing.

The exact mechanisms by which better granularity ameliorates the adverse impact of intense distress are also not yet known. People who respond to their felt experiences with greater differentiation are more mindfully aware of their conscious state and thus find it easier to shift their attentional focus and maintain emotional stability (Fogarty et al., 2013; Hill & Updegraff, 2012; Pond et al., 2012). We speculate that when distressing feelings and bodily sensations arise, instead of letting these experiences dominate attention or dictate how to behave, high differentiators are better able to distance themselves (a concept referred to as defusion, Hayes, Strosahl, & Wilson, 1999, or self-distancing, Kross & Ayduk, 2011). With this psychological distance, there is greater opportunity to direct effortful behavior toward personally valued strivings or goals.

Concluding Thoughts

Emotion differentiation is a skill that is relevant to a wide range of psychological problems and disorders. Those more adept in constructing granular, precise experiences will be better able to deal with them, no matter their intensity. Those experiencing less granularity in their negative experiences are easily overwhelmed by stress and are susceptible to unhealthy emotion-regulation strategies such as binge drinking and eating, aggression, and self-injurious behavior. Knowing whether someone is experiencing frequent, intense negative affect is insufficient for predicting whether they are going to be healthy and functional. These psychological outcomes depend on whether a person is also effective at differentiating those experiences. Results from psychological interventions suggest that people can be trained to become better at constructing more granular experiences. At the heart of these interventions is the expansion of a person’s emotion vocabulary. The manner through which emotion words are important in constructing conscious experience with downstream effects on emotion-regulation capacity and healthy psychological functioning is a matter of future research.

Recommended Reading


Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (1999). (See References). A rich, theoretical model of how we do not just have emotions but form relationships with our emotions, and the therapeutic strategies that are available to improve the quality of these relationships.

Tamir, M. (2009). (See References). An important framework for understanding emotions as “tools” to obtain desired goals as opposed to an end in themselves to pursue.
Declaration of Conflicting Interests

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