

Moving Through the Literature:

What Is the Emotion Often Denoted *Being Moved*?

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Abstract

When do people say that they are *moved*, and does this experience constitute a unique emotion? We review theory and empirical research on *being moved* across psychology and philosophy. We examine feeling labels, elicitors, valence, bodily sensations, and motivations. We find that the English lexeme *being moved* typically (but not always) refers to a distinct and potent emotion that results in social bonding, often includes tears, piloerection, chills, or a warm feeling in the chest, and is often described as pleasurable, though sometimes as a mixed emotion. While we conclude that there is a distinct emotion, we also recommend studying it in a more comprehensive emotion framework, instead of using the ambiguous vernacular term *being moved* as a scientific term.

Keywords: being moved, social emotion, tears, chills

*Moving Through the Literature:*What Is the Emotion Often Denoted *Being Moved*?

Then there are the emotions of being moved. Being moved too has control precedence. It intrudes on whatever one is doing. One falls silent. One is knocked over - bouleversé, as they say in French.

(Frijda, 2007, p. 38)

In his seminal work *The Laws of Emotion* Nico Frijda (2007) refers to a “class” of strong emotions he calls *being moved*. He argues that these “ambiguous” experiences (Frijda, 2001) are aesthetic emotions that “grip the body.” Later Tan (2009) noted that *being moved* resembles a feeling of “being conquered.” First systematically discussed in psychology by McDougal (1919; he called it “the tender emotion”) and Claparède (1930; *être ému*), theorizations and empirical evidence concerning *being moved* are scattered across the emotion literature, often hiding in the shade of similar concepts. In sociology, Durkheim (1912) posited a similar concept, “collective effervescence.” While some scholars have followed Frijda in regarding the concept of *being moved* as part of a bigger construct or set of emotions (e.g., Batson, Fultz, & Schoenrade, 1987; Haidt, 2000), others have conceptualized it as a distinct emotion (Cova & Deonna, 2014; Menninghaus et al., 2015; Tan, 2009; Zickfeld et al., 2018). The experience has been categorized as purely positive (Cova & Deonna, 2014; Haidt, 2000; Seibt, Schubert, Zickfeld, & Fiske, 2017), occurring with mixed affect (Frijda, 2007; Menninghaus et al., 2015), and even as primarily negative (Bartsch, Kalch, & Oliver, 2014). In a recent national survey about 51% of US American adults have reported *being moved* by media or something on the internet at least several times a week (Raney et al., 2018).

A systematic review of the literature on the concept of *being moved* must address the following questions: What is *being moved*? Where do different conceptualizations of *being moved* converge and diverge? What are the strengths and weaknesses of the various conceptualizations? Does *being moved* constitute a distinct emotion? What evidence is there about the characteristics and causes of *being moved*? How is *being moved* experienced in different cultures? We focus on the psychological literature. Accounts in the anthropological, religious, and sociological literatures are certainly also relevant, but are beyond the scope of the present review. For the current review we focus on literature that explicitly investigates *being moved* or measures its topic using the label *being moved*.

Approach and definitional issues

In order to review the literature on the concept of *being moved*, one must take a theoretical position about what emotions are in the first place. Unfortunately, there is little consensus what exactly emotions are (Russell, 2014). However, most researchers see emotions and their labels as closely linked, if not interchangeable. That is, they assume that an emotion is whatever it is labelled, and often define ‘emotion’ as the labeling of an experience. These assumptions run into basic problems as soon as one attempts to translate conceptual terms and measurement instruments. Different languages provide different and non-equivalent terms for emotions, similar to how color terms carve up the space of wavelength and brightness in visible light (Lucy & Shweder, 1979; Roberson, Davies, & Davidoff, 2000; Wierzbicka, 1999). Furthermore, even within a language community at one point in time, people use psychological terms ambiguously, and are inconsistent across contexts; further, different people use the same word differently (D. W. Fiske, 1981; S. T. Fiske, 1995). In addition, within every language, there are many overlapping but not completely synonymous emotion worlds.

The central debate in emotion literature is whether there is an equivalent to wavelength and brightness, or the rods and cones, when it comes to emotions, and if so, how many such dimensions there are. One school of thought argues that some basic, universal and biologically grounded emotions exist across cultures (Ekman, 2016; Tracy, 2014). Another view posits that emotions are primarily social constructions that are specific to social and cultural context, while being informed by biological processes (Barrett, 2014; Mesquita & Boiger, 2014). The basic emotions view sees labels as capturing existing natural kinds. The constructionist view sees emotion labels as cultural and sociolinguistic construals of situations, with a few bodily processes (affect, arousal) only as one input among others (or even as an output of the labelling).

This debate is important for *being moved* because the lexemes used to denote it appear to be particularly broad in many languages, raising the question of whether there is a clear or consistent referent. For the purposes of the current review, we take no a priori stand in this debate, simply discussing work that identifies its topic using the English phrase *being moved* and a few additional sources that we deemed relevant. We will also report on the (limited) evidence—predicted on the basic emotions perspective—concerning cultural universality of the concept of *being moved*. In the conclusion of the review, we will come back to this issue, and present our own view on how to solve it.

Most emotion perspectives agree that an emotion can be understood as a set of components that emerge in a coordinated manner that are experienced as basically simultaneous and instantaneous. Those components are (1) an appraisal pattern or elicitor, (2) bodily reactions, (3) a feeling or affect (valence and arousal), (4) action tendency or motivation, and (5) expression and labels (facial or verbal; Coppin & Sander, 2016; Scherer, 2005). Therefore, we review the literature on *being moved* with regard to these five aspects.

Linguistic Properties

Etymologically, *moved* derives from Latin *moveō* via French *émouvoir*. Interestingly, the word *emotion* derives from the same Proto-Indo-European root (as do *motive* and *motion*). One could therefore think, as Claparède (1930) did, that *being moved* might represent a kind of proto-emotion. Analyses of linguistic properties within the German language have identified that *moved* is related to similar lexemes indicating some kind of passive action (Kuehnast, Wagner, Wassiliwizky, Jacobsen, & Menninghaus, 2014; Menninghaus et al., 2015). English lexemes such as *moved*, *touched*, and *stirred* are based on the same metaphors of passive displacement or contact that a number of other languages use to denote more or less the same emotion (e.g., Mandarin *gǎn dòng* 感动, literally, ‘to feel movement’; see Fiske et al., 2017a).

Definitional Issues

Being moved has sometimes been defined as belonging to a larger class of emotions (Frijda, 2007; Scherer & Zentner, 2001). One example is the research by Batson and colleagues (1987) who have treated *being moved* as a part of their *empathy* or *empathic concern* construct, which also consists of feelings of sympathy, compassion, tenderness, warmth, and softheartedness. Another conceptualization has been provided by Jon Haidt and colleagues with the *elevation* construct (Haidt, 2000, 2003). Haidt (2003, p. 281) noted “that the popular press and Oprah Winfrey talk about it (as being touched, moved, or inspired)”. Scholars studying elevation have assessed their construct on multiple occasions with items asking participants if they were *moved* (e.g., Schnall, Roper, & Fessler, 2010). However, Pohling & Diessner (2016) argue that *being moved* refers to an emotional state which can be elicited by a much broader range of stimuli than elevation (see also Thomson & Siegel, 2016). Both empathic concern and elevation emphasize an *other-oriented* feeling, which occurs only in response to witnessing or learning of others’ actions or feelings.

Although the *elevation* and *empathic concern* concepts might seem broader than *being moved*, they are included in the present review for two reasons: First, both concepts have often been assessed with items including the label *moved*. Second, there is some evidence that both concepts in fact mostly capture *being moved* (Cova, Deonna, & Sander, 2016, 2017; Zickfeld, Schubert, Seibt, & Fiske, 2017). Therefore, we include data primarily collected in the frameworks of the elevation or empathic concern frameworks; we treat these data as probable evidence concerning the concept of *being moved*.

Cova & Deonna (2014) have argued that *being moved* is a distinct positive emotion, sometimes also labeled as *touched*, which is elicited by positive core values standing out. They assume that it is identical to what French speakers call *être ému*, ‘be moved.’ Similarly, based on studies of the semantics of German lexemes that they used to translate *moved* (*bewegt, gerührt*; Kuehnast et al., 2014; cf. Schmidt-Atzert & Ströhm, 1983), Menninghaus and colleagues (2015) have proposed that *being moved* is a distinct emotion, which often occurs in response to significant relationship events or aesthetic stimuli. They integrate *being moved* in their recently proposed *Distancing-Embracing* model (Menninghaus, Wagner, Hanich, et al., 2017). According to the model *being moved* helps integrating negative affect into pleasurable states in art reception. Research on aesthetics has produced a number of additional definitions. Schindler et al. (2017) define *being moved* as an *aesthetic emotion* that includes mixed affect. Konečni (2005, 2011, 2015) regards *being moved* as part of the *aesthetic trinity*, which also involves feelings of *awe* and *thrills*.

Bartsch et al. (2014) investigated *being moved* in the context of media enjoyment and argued that the feeling satisfies eudaimonic needs eliciting increased reflective thoughts. Interestingly, they define *being moved* as partly characterized by its negative valence. According to their definition, *being moved* can be regarded as a mixed emotion predicting enjoyment of aesthetic stimuli. *Being moved* as related to media enjoyment has sometimes

been characterized as belonging to the class of *self-transcendent* emotions (Dale, Raney, Janicke, Sanders, & Oliver, 2017; Oliver et al., 2018; Stellar et al., 2017). According to Stellar and colleagues (2017) self-transcendent emotions are experienced as pleasant, other-oriented, and function to bind individuals together (typical examples include awe, compassion, gratitude, and elevation; see also Van Cappellen, Saroglou, Iweins, Piovesana, & Fredrickson, 2013).

Finally, Fiske, Seibt, and Schubert (Fiske, Schubert, & Seibt, 2017a, 2017b; Fiske, Seibt, & Schubert, 2017) argue that the emotion that English speakers often (but by no means always) refer to as *being moved* is part of the concept they call *kama muta* (Sanskrit for ‘moved by love’). They note that vernacular labels are ambiguous and imprecise, therefore proposing the use of a scientific construct denoted by a formally defined lexeme. Thus, they indicate that while people often use *being moved* or *touched* to denote *kama muta*, they also use many other terms, depending on context and speaker, and sometimes use *being moved* or *touched* to denote other emotions distinct from *kama muta* (such as sadness or even anger/outrage). They note that in some contexts speakers of some languages have no accessible labels for their *kama muta* experiences—they experience the emotion, but cannot find a distinct name for it.

Similar concepts

Researchers studying *being moved* have identified a number of emotions that they regard as related but distinct (see Table 1). Among these have been awe and admiration (Haidt & Keltner, 2004); gratitude (Siegel, Thomson, & Navarro, 2014); inspiration (Algoe & Haidt, 2009); empathy (Batson, 2010); personal distress (Batson et al., 1987); sentimentality (Cova & Deonna, 2014); nostalgia, poignancy, elevation, and awe (Menninghaus et al., 2015); happiness, sadness, surprise, respect, empathy, and sympathy (Tokaji, 2003); aesthetic awe, thrills, and catharsis (Konečni, 2005); and awe, joy,

admiration, pride, and sadness (Seibt, Schubert, Zickfeld, & Fiske, 2017). Awe and admiration are mentioned most frequently as sister emotions to the concept of *being moved*. While *being moved* experiences are often argued to be evoked by increased interpersonal closeness or moral acts (e.g., Seibt, Schubert, Zickfeld, & Fiske, 2017), Keltner and Haidt (2003) posit that awe is evoked by *perceived vastness*. Algoe and Haidt (2009), and Onu, Kessler, and Smith (2016) posit that admiration is evoked by competence exceeding standards—which does not need to include moral acts or increased interpersonal closeness. There is also empirical evidence differentiating the label *being moved* from the labels of *awe* (Seibt, Schubert, Zickfeld, & Fiske, 2017; Zickfeld et al., 2018); *admiration* (Algoe & Haidt, 2009; Seibt, Schubert, Zickfeld, & Fiske, 2017); *gratitude* (Algoe & Haidt, 2009; Siegel et al., 2014); and *sadness* (Seibt, Schubert, Zickfeld, & Fiske, 2017; Zickfeld et al., 2018).

Nostalgia is also in the same extended family of emotions (Batcho, 2013; Sedikides & Wildschut, 2017; Wildschut, Sedikides, Arndt, & Routledge, 2006). According to Wildschut and colleagues' theory, nostalgia is often triggered by negative affect such as loneliness or separation, and generates positive affect and approach tendencies. Similar to *being moved* it was found to include positive valence, approach orientations, and low arousal (Tilburg, Wildschut, & Sedikides, 2017). While *being moved* is often regarded as an other-oriented emotion, nostalgia is primarily categorized as a self-relevant emotion. However, Menninghaus and colleagues (2015) found evidence that the lexemes *bewegt* (*moved*) and *Nostalgie* (*nostalgia*) cluster together when people rate emotional episodes, and Fiske and colleagues (2017a, 2017b) suggested that *nostalgia* may be what English speakers label *kama muta* when it is evoked by a memory of strong communal sharing.

Agents and even objects that are perceived as *cute* are often described with labels such as *moving* or *touching* (e.g., Aragón et al., 2015; Sherman & Haidt, 2011; Steinnes, 2017). While some languages do have a precise term for the experience (e.g., Finnish,

Estonian, Hungarian), English and most Germanic languages lack such a term. Some scholars have suggested calling this emotional reaction *Aww*, after the phatic exclamation that cute babies and animals often elicit in speakers of some languages (Buckley, 2016). Some findings have linked *cuteness* to the empathic concern concept (Lishner, Batson, & Huss, 2011; Lishner, Ocejka, Stocks, & Zaspel, 2008). Two studies showed that the predominant emotion evoked by cute targets is *kama muta*, as assessed by appraisals of intensified communal sharing, positivity, desire to share the emotion, labels, sensations, and increased communal sharing motives (Steinnes, 2017).

Some researchers have argued that sadness and happiness or joy can be integral components of the *being moved* experience (Frijda, 2001, 2007; Menninghaus et al., 2015; Wassiliwizky, Wagner, Jacobsen, & Menninghaus, 2015), while others have treated *being moved* as distinct from these emotions, though positively valenced (Cova & Deonna, 2014; Fiske, Schubert, et al., 2017a; Fiske, Seibt, et al., 2017).

Appraisals or Elicitors

A great deal of research has been conducted on *elevation*, sometimes also referred to as *moral elevation* (for reviews, see Pohling & Diessner, 2016; Thomson & Siegel, 2016). Elevation is posited to result from witnessing especially virtuous behavior—acts of ‘moral beauty’ (Haidt, 2000). English speakers are said to typically label elevation as *being moved* or *touched*. Elevation is only evoked by observing moral beauty from a third party perspective; the theory does not mention elevation ever resulting from actions directed at the self, or in response to the person’s own self-initiated actions, sentiments, motives, or memories. So the experience of someone doing something morally beautiful towards/for oneself would not evoke “elevation.” Observing a stranger helping an old woman on the bus, for example, would qualify as evoking elevation if this action is appraised as morally

beautiful. However, Janicke & Oliver (2017) have argued that elevation might also be evoked by connectedness, love, or kindness.

Empathic concern, a concept Batson and colleagues propose, is said to often be labeled *being moved* (Batson et al., 1987; Batson, Eklund, Chermok, Hoyt, & Ortiz, 2007). It is posited to be elicited by a combination of three appraisals: witnessing someone in need or distress, adopting the needy person's perspective, and valuing the welfare of this person. Similar to elevation, empathic concern is primarily experienced as an *other-oriented* emotion; that is, one would not feel empathic concern for oneself. A meta-analysis of 16 studies found that empathic concern, as a trait measured by self-report of typical emotional responses to others' suffering or distress, correlates .35 with self-reports of *being moved* or *touched* by a number of stimuli (Zickfeld et al., 2017).

Cova and Deonna (2014; Cova, Deonna, & Sander 2017) argued that *being moved* is elicited by positive core values emerging and standing out from a negative background. More precisely, people are moved by events that manifest positive values, such as kindness or solidarity, despite negative circumstances. For Cova and Deonna, actively performing an action oneself or receiving a good deed may evoke *being moved*; it is not limited to events that one witnesses. According to this proposition, observing the stranger helping the old woman could *move* an observer if helping older ladies (or more broadly, helping) is a positive core value and there were negative circumstances, such as the woman struggling or falling down while trying to get on the bus. A recent study found that *core values* related to love, willpower, and beauty were rated as more *moving* when arising in unfavorable in contrast to favorable circumstances (Strick & Van Soolingen, 2017), providing the first empirical support for Cova and Deonna's theorization. Similarly related to core values, it has been argued that individuals are *moved* by other people *surpassing standards* with regards to virtue and success, but also music (Landmann, Cova, & Hess, 2016).

Based on studies that took the vernacular labels *being moved* as their starting point, Menninghaus et al. (2015) theorized that this is a label for an emotion evoked by significant relationships or critical life events, such as weddings or reunions, especially if they are highly compatible with pro-social norms and self-ideals. In addition, they noted that aesthetic stimuli such as films or music often elicit feelings of *being moved*. So in this framework, observing the stranger helping the old woman might elicit feelings of *being moved* if this is appraised as a critical event and compatible with one's self-ideals or norms.

Fiske, Schubert, & Seibt (2017a; Fiske, Seibt, & Schubert 2017) argued that *kama muta* is evoked by the sudden intensification of a communal sharing (CS) relationship. The sudden CS intensification might occur between the participants and a target entity, (e.g., a human being, group, deity, cute animal, the earth) or by observing the intensification of CS between third parties. One of Fiske's four fundamental relational models, CS is a social equivalence relation in a dyad or group perceived to have something essential in common (Fiske, 1991, 2004). CS relations typically involve feelings of belonging or identification, and altruistic behavior, such as sharing and caring without keeping track, just giving what is needed. Need-based giving, hugging, kissing, sharing food and touching are typical indicators of CS relations. Communal sharing generates the morality of kindness, compassion, and shared responsibility (Rai & Fiske, 2011).

Fiske and colleagues (2017) note that 'intensification' of CS may consist of a rapid temporal increase in a CS relation; the creation of a new CS relation; or a transformation of loss, separation, or longing into CS, whether the transition is remembered, anticipated, imagined, or actually experienced. These intensifications may be initiated by the participant, by a second person, by observed third parties, or result from collective action such as engaging in a protest or moving in rhythmic synchrony together. According to this proposition, observing the stranger helping the old woman would be experienced as moving

if their communal sharing is perceived to suddenly intensify—if the helper and the woman are suddenly perceived as *closer* and their relationship is perceived as *warmer*, or the helper is suddenly perceived as *caring and kind* because he feels *compassion*, or the perceiver suddenly feels *closer* to the woman and/or the helper.

Scholars have put forward more proposals on causes of *being moved*: forgiveness, selfless sacrifices, and generosity (Konečni, 2005); overcoming adverse circumstances (Tokaji, 2003); and fulfillment of a union in melodrama (Neale, 1986). Tan (2009) argued that easing the difficulty (such as separation) of a dear object (such as a close friend) elicits *being moved*. Similarly, Frijda (1988, p.88) noted that there is a particular sequence of events that evokes *being moved*: “Latent attachment concerns are awakened; expectations regarding their non-fulfillment are carefully evoked but held in abeyance; and then one is brusquely confronted with their fulfillment”. Judging by the phrase “carefully evoked but held in abeyance,” Frijda is apparently describing the evocation of this emotion by narrative or drama. In addition, *being moved* has been studied with regard to aesthetic stimuli such as films or music. In a survey study including 141 participants, feeling *moved* was identified as the fourth most common emotion in response to music (Juslin & Laukka, 2004; see also Eerola & Peltola, 2016; Gabrielsson, 2001). See Table 2 for a summary of the appraisals that have been proposed.

Eliciting Being Moved. Research has generally elicited *being moved* by either asking people to think of an episode involving *positive tears* and writing it down (e.g., Seibt et al., 2017; Zickfeld, Schubert, Seibt, Blomster, et al., 2017), or by presenting participants with stimuli such as short film clips (e.g., Schnall et al., 2010; Wassiliwizky et al., 2017); music (e.g., Benedek & Kaernbach, 2011; Eerola, Vuoskoski, & Kautiainen, 2016; Strick et al., 2015; Vuoskoski & Eerola, 2017); short written narratives (e.g., Batson et al., 1987; Tokaji, 2003); or audio narratives (Zickfeld, 2015). These stimuli were either chosen by the

researchers based on their judgment that they would evoke the targeted emotion (e.g., Schnall et al., 2010; Strick et al., 2015), or they were picked by the participants themselves (e.g., Benedek & Kaernbach, 2011). For example, to elicit elevation Silvers and Haidt (2008) employed a video clip depicting a scene from the Oprah Winfrey show. In this scene a musician is surprisingly reunited with his old mentor and music teacher, who had helped him to overcome personal obstacles. This scene, and similar videos clips, have been used in other studies as well (e.g., Schnall et al., 2010; Seibt et al., 2016).

Affect and Experience

Researchers have distinguished between *valence* and *arousal/activation* in the feeling of an emotion (Larsen & Diener, 1992; Posner, Russell, & Peterson, 2005; Watson & Tellegen, 1985). With regard to the valence of *being moved*, most scholars have proposed that it is overall experienced as positive (Darwin, 1872; Batson et al., 1987; Cova & Deonna, 2014; Fiske et al., 2017; Fiske, Seibt, & Schubert, 2017; Frijda, 2001; Haidt, 2003; Menninghaus et al., 2015). Cova & Deonna (2014) theorize that *being moved* consists only of positive affect: they exclude from their *being moved* construct instances of experiences labeled as *being moved* that are reported as purely sad, saying that sad instances are only phenomenologically and semantically similar. However, in their opinion the loss of something important might still trigger episodes of *being moved*. On the one hand, several researchers suggest that *being moved* includes aspects of happiness or joy together with sadness, positing that it is a mixture of positive and negative affect (Frijda, 2001; Hanich, Wagner, Shah, Jacobsen, & Menninghaus, 2014; Menninghaus et al., 2015; Pohling & Diessner, 2016; see also Aragón, Clark, Dyer, & Bargh, 2015). For example, Frijda (2001) noted that *being moved* includes “joy with a melancholy overtone” and also “sadness with a not unpleasant tone”. Similarly, Menninghaus and colleagues divide *being moved* into two different variants: one with joy as the main component, another one with sadness as the key

ingredient (Menninghaus et al., 2015; Schindler et al., 2017; Wassiliwizky et al., 2015). In their study on appreciation of entertainment experiences, Bartsch et al. (2014) reported that *being moved* was primarily negatively valenced, though also including positive affect (see also Oliver & Bartsch, 2011). They characterized *being moved* as increasing reflective thoughts, that is, the tendency to meaningfully think about a given stimulus, thereby resulting in more positive evaluations and enjoyment of such film stimuli (cf. Hanich et al., 2014). However, although including both components of joy and sadness, most proponents of this positive and negative mixture conceptualization have highlighted that *being moved* is still experienced as overall positive.

The resolution of this issue may depend on the temporal resolution of the self-reports, where an extended experience often consists of distinct moments of positive affect and other moments of negative affect. In time series analysis of responses while viewing videos selected to evoke *being moved*, one set of participants' continuous ratings of *being moved* or *touched* at each moment were consistently cross-correlated with another set of participants' ratings of happiness at the same moments, but not cross-correlated with a third set of participants' ratings of sadness at those moments (Schubert, Zickfeld, Seibt, & Fiske, 2016). However, when rating an entire episode, story, or video in the aggregate, participants may report feeling both sadness and happiness, though they probably felt the negative and positive affects at different moments (Seibt, Schubert, Zickfeld, & Fiske, 2017). Indeed, when concern about getting back together with loved ones evokes anxiety, fear, anger, or sadness, these negative affects may afford especially strong positive *kama muta* when the loved ones are ultimately reunited (Fiske, Schubert, et al., 2017b; see also Frijda, 1988; Deonna, 2018). Another issue here is that positive affect and negative affect are not polar opposites on a single dimension; they are often distinct aspects of the valence of an experience, so they need to be measured separately (Cacioppo & Berntson, 1994). In Schubert and colleagues' (2016)

time series analyses of means of separate sets of participants' ratings while watching kama muta-evoking video, the cross-correlations of happiness and sadness across moments was .03; after linear and quadratic temporal detrending, the cross-correlation was -.64. Similarly, Deonna (2018) argues that sadness is the opposite of *being moved* and the reason that they are sometimes regarded as the same might be either a mistake in labeling or that *being moved* is a rather ambiguous label.

In sum, there is some degree of consensus that *being moved* is a positive experience, though some scholars argue that the emotion often, or typically, also has a sad valence at the same time. In contrast, the arousal signature of *being moved* is not well characterized. Menninghaus and colleagues (2015) proposed that *being moved* consists of low to moderate arousal, while Bartsch and colleagues (2014) suggested that the experience is characterized by moderate levels of arousal. It seems reasonable to suppose that arousal levels may range from low to high, depending on the intensity of the emotion (Reisenzein, 1994). As noted in the next paragraph, both sympathetic and parasympathetic systems are activated during episodes of *being moved*. See Table 3 for a summary of proposed valences.

Bodily Reactions

There is considerable consensus in the literature on the bodily sensations and signs that characterize the emotion that English speakers often label *being moved*. Darwin (1872) and James (1890) mentioned tears in response to *tender* feelings. Later Tan and Frijda (1999) described tears as typical of *being moved*. Nearly all conceptualizations have identified weeping or moist eyes as a common symptom of *being moved* (Cova & Deonna, 2014; Fiske, Schubert, & Seibt, 2017a; Fiske, Seibt, et al., 2017; Haidt, 2003; Konečni, 2005; Menninghaus et al., 2015; Miceli & Castelfranchi, 2003; Pohling & Diessner, 2016; Tan, 2009; Tan & Frijda, 1999; Thomson & Siegel, 2016). This theorization is supported by several studies that have found that people report moist eyes or tears when they have

experiences they label *being moved* (e.g., Mori & Iwanaga, 2017; Schubert et al., 2016; Seibt et al., 2017; Wassiliwizky, Jacobsen, Heinrich, Schneiderbauer, & Menninghaus, 2017).

Reviewing and meta-analyzing evidence from 42 studies reported by Seibt, Schubert, Zickfeld, Zhu, et al. (2017) and Zickfeld et al. (2018, 2017) with 7084 participants scattered across the globe revealed a correlation of, $r = .47$ [.43, .51] for the relationship between tears and *being moved* (see Supplementary Material). Research to date is based on self-report evidence; no objective measures of tears have been used in the context of *being moved*.

In addition, some theories have suggested that *being moved* may be accompanied by a lump in the throat or being choked up, having difficulty speaking, or speaking in a creaky voice (Cova & Deonna, 2014; Fiske, Schubert, et al., 2017a; Fiske, Seibt, et al., 2017; Konečni, 2005). These sensations and signs may be aspects of intense crying or of trying to suppress tears. Conversely, US and Norwegian observers tend to perceive tears in an appropriate context as a sign that the tearful person is *moved* and *touched* (Zickfeld & Schubert, 2018).

A second bodily reaction that has been mentioned frequently is goosebumps or chills (we provisionally treat them here as two names for the same experience, although they may be distinct; Benedek & Kaernbach, 2011; Fiske, Schubert, et al., 2017a; Fiske, Seibt, et al., 2017; Konečni, 2005; Menninghaus et al., 2015; Mori & Iwanaga, 2017; Panksepp, 1995; Schubert et al., 2016; Seibt et al., 2017; Wassiliwizky et al., 2017, 2015). Panksepp (1995) found self-reports of chills in the context of music (see also Laeng, Eidet, Sulutvedt, & Panksepp, 2016; Mori & Iwanaga, 2017; Nusbaum et al., 2014), which has been found to evoke *being moved* quite frequently (Juslin & Laukka, 2004). Later studies collected objective evidence on piloerection by employing a camera (Benedek & Kaernbach, 2011; Wassiliwizky, Jacobsen, et al., 2017; Wassiliwizky, Koelsch, Wagner, Jacobsen, & Menninghaus, 2017). Reviewing and meta-analyzing the same self-report data as above

including 42 studies suggested a correlation of, $r = .35$ [.31, .39] for the relationship between self-reports of chills or goosebumps and *being moved* (see Supplementary Material).

The third bodily sensation that has been reported repeatedly across the literature is the experience of warmth, especially in the center of the chest (Cova & Deonna, 2014; Fiske, Schubert, et al., 2017a; Fiske, Seibt, et al., 2017; Pohling & Diessner, 2016; Schnall et al., 2010; Schubert et al., 2016; Seibt et al., 2017; Tan & Frijda, 1999; Thomson & Siegel, 2016; Zickfeld, 2015). It is not clear whether there is an actual physical increase of warmth in the body, especially since many people experiencing *kama muta* on many occasions report a pleasant feeling in the center of the chest that they describe as something other than warmth, such as *swelling* or *tingling* or some kind of motion. In our own unpublished pilot work using thermal videography (resolution around 0.1° C) with a small number of participants, we found no change in temperature on the surface of the chest at moments when participants reported subjective feelings of ‘warmth’ there. Haidt (2003) speculated that the increase of warmth might be attributed to activity in the vagus nerve, which is involved in the parasympathetic nervous system, but research measuring core body temperature related to ostensibly *moving* stimuli has provided no consistent evidence (e.g., McFarland, 1985; Rimm-Kaufman & Kagan, 1996; Salimpoor, Benovoy, Larcher, Dagher, & Zatorre, 2011; Salimpoor, Benovoy, Longo, Cooperstock, & Zatorre, 2009). Also, there are multiple indications of sympathetic nervous system activation in episodes described as *being moved* (see below). Reviewing the same self-report studies as presented above (7084 participants) resulted in a correlation of, $r = .50$ [.46, .54] between felt warmth (in the chest) and *being moved* (see Supplementary Material).

Several studies have shown intercorrelations among tears or moist eyes, goosebumps or chills, and warmth in the chest (Mori & Iwanaga, 2017; Schubert et al., 2016; Van de Ven, Meijs, & Vingerhoets, 2017; Wassiliwizky, Jacobsen, et al., 2017). However, it should be

noted that each symptom on its own is not sufficient to indicate the concept of *being moved* (Fiske, Schubert, et al., 2017a; Fiske, Seibt, et al., 2017). Tears might occur in response to sad events (Vingerhoets & Bylsma, 2015), to fear or anxiety, and to pain, as well as with intense laughter; chills or goosebumps in response to awe or fear (Maruskin, Thrash, & Elliot, 2012); and general warmth in the body in response to positive affect in general (Fredrickson, 2001). It seems to be the combination of all three sensations that uniquely indicates *being moved* (Schubert et al., 2016; Seibt, Schubert, Zickfeld, & Fiske, 2017). However, while the three sensations are consistently and highly correlated within and across participants responding to the same situation, many people report *being moved* with only two, one, or none of the three sensations.

Based on interviews, participant observation, and many ethnographic and historical sources, Fiske and colleagues (2017a; 2017b) have observed that *kama muta* experiences often include taking and holding a deep breath, and also sensations of buoyancy (lightness, floating) and exhilaration (feeling refreshed, energized, and optimistic) that may endure for some time after the emotional moment.

Chills and goosebumps result from activation of the sympathetic nervous system. And studies have shown that episodes of *being moved*, as operationalized by the occurrence of piloerection or lachrymation, involve two other markers of sympathetic nervous system activation. There is an increase in heart rate (HR; Benedek & Kaernbach, 2011; Piper, Saslow, & Saturn, 2015; Salimpoor et al., 2011, 2009; Sumpf, Jentschke, & Koelsch, 2015; Wassiliwizky, Jacobsen, et al., 2017; Wassiliwizky, Koelsch, et al., 2017), and a decreased pulse volume amplitude (Benedek & Kaernbach, 2011; Salimpoor et al., 2011, 2009). In some studies *being moved* episodes were marked by higher respiration rate than control events (Salimpoor et al., 2011, 2009; Shiota, Neufeld, Yeung, Moser, & Perea, 2011; Wassiliwizky, Jacobsen, et al., 2017), while there were no differences in other studies

(Benedek & Kaernbach, 2011; Sumpf et al., 2015). Benedek and Kaernbach (2011) observed differences from controls in respiratory depth at the moments when participants reported *being moved*. In addition, some evidence has been accumulated that *being moved* episodes involve (phasic) skin conductance responses (Benedek & Kaernbach, 2011; Salimpoor et al., 2011; Wassiliwizky, Jacobsen, et al., 2017; Wassiliwizky, Koelsch, et al., 2017), but not increased skin conductance (Benedek & Kaernbach, 2011).¹ Finally, testing moral elevation, Piper et al., (2015) reported an increase in respiratory sinus arrhythmia. These findings suggest that both sympathetic and parasympathetic systems are activated during episodes of *being moved*.

A few studies have explored neurophysiology of *being moved* experiences. It has been theorized that emotions such as *being moved* involve activation of the hippocampus (Koelsch et al., 2015), though no evidence has been provided to date. In a recent study Wassiliwizky, Koelsch, et al., (2017) explored the neurophysiological aspects of listening to poetry and experiencing chills. They found increased activity in subcortical areas of the basic reward system, but did not confirm previous studies showing greater activity in the nucleus accumbens when experiencing chills (Blood & Zatorre, 2001; Salimpoor et al., 2011). Although they did not design their study to evoke the particular emotion of *being moved*, Immordino-Yang, McColl, Damasio, & Damasio (2009) showed segments of videos that often *moved* their participants; these videos activated brain systems such as the insula that are involved in interoceptive representation and homeostatic regulation, as well as the default network that is involved in thinking about social relationships. Evoking elevation, Piper and

¹ It should be noted that except for Benedek and Kaernbach (2011), and Wassiliwizky et al., (2017), none of these studies explicitly measured *being moved*. Most of the studies used aesthetic stimuli such as music or poetry to induce goosebumps or chills. In most of these studies participants were not asked about tears and warm feelings, and some of the people reporting goosebumps or chills may have felt *awed* by the stimuli, but not *moved*.

colleagues (2015) identified medial prefrontal cortex activation. Exploring *aesthetic engagement*, the disposition to be *moved* by art or beauty, and employing resting state fMRI Williams, Johnson, Curtis, King, and Anderson (2018) observed higher integration of the default mode network. In addition, a small study by Silvers & Haidt (2008) found that elevation can induce nursing in breastfeeding women. Based on this, Silvers and Haidt suggested that elevation involves the release of prolactin and perhaps oxytocin, but their results do not necessarily generalize to non-lactating women, or to males.

In sum, *being moved* experiences are often accompanied by self-reports of moist eyes or tears, goosebumps or chills, and subjective feelings of warmth in the body, especially in the center of the chest. However, the only objective evidence for any of these three types of bodily responses concerns goosebumps, and nothing is known about the physiology of the sensations in the center of the chest that are often described as *warm* (but sometimes described in other terms). In addition, increases in heart rate, respiration rate, and skin conductance may occur along with reported chills during experiences that people may describe as *being moved*. See Table 4 for a summary of proposed sensations and signs of *being moved*.

Action Tendencies or Motivation

Most scholars have proposed that *being moved* results in affiliation with others and pro-social or altruistic behavior (Batson, 1991; Cova & Deonna, 2014; Fiske, Schubert, et al., 2017a; Fiske, Seibt, et al., 2017; Haidt, 2003; Menninghaus et al., 2015; Pohling & Diessner, 2016; Tan, 2009; Thomson & Siegel, 2016). More precisely the consequences of *being moved* have been posited to be love for others or *moral action tendencies* (Thomson & Siegel, 2016); the *empathy-altruism hypothesis*, which also includes the motivation to relieve the distress or need of another person (Batson, 1991, 2010); “reorganization of one’s hierarchy of values and priorities” (Cova & Deonna, 2014, p. 458); approaching, bonding,

helping, as well as promoting social bonds (Menninghaus et al., 2015); signaling significance (Tan, 2009); and affective devotion and moral commitment to communal sharing relations (Fiske, Schubert, et al., 2017a; Fiske, Seibt, et al., 2017).

Early research by Frijda, Kuipers, and ter Schure (1989) corroborated the propositions that social relational motives emerge from this emotion. Participants classified the lexeme *being moved* as an emotion fostering approach tendencies. Scores of studies on the elevation concept have further supported this notion (see Pohling & Diessner, 2016; Thomson & Siegel, 2016). In addition, studies have provided evidence that *being moved* may reduce stereotypes and prejudice (Bartsch, Oliver, Nitsch, & Scherr, 2016; Krämer et al., 2016; Lai, Haidt, & Nosek, 2014; Oliver et al., 2015); increase altruistic helping behavior (Batson et al., 1988; Cova et al., 2016; Cox, 2010; Schnall et al., 2010; Strick et al., 2015; Thomson & Siegel, 2013); increase humanization of out-groups (Blomster, Seibt, & Thomsen, 2018); and foster interpersonal closeness and communal relations (Oliver et al., 2015; Steinnes, 2017; Zickfeld, 2015).

Other authors have argued that *being moved* might also lead to insight, meaning, and personal growth (Bartsch et al., 2014; Oliver & Bartsch, 2011; see also research on *peak experiences* that people often describe as deeply *moving*: Maslow, 1962, 1970; Wuthnow, 1978; Keutzer, 1978; Woodward, Findlay, & Moore, 2009). Similarly, several studies have provided evidence that *being moved* plays a crucial part in the enjoyment of arts such as film (Hanich et al., 2014; Oliver & Raney, 2011); music (Vuoskoski & Eerola, 2017); and poetry (Menninghaus, Wagner, Wassiliwizky, Jacobsen, & Knoop, 2017). *Sad* music or films may lead to an increase in *being moved*, perhaps through empathic concern (compassionate caring), which in turn increases the enjoyment and pleasure ratings (Hanich et al., 2014; Vuoskoski & Eerola, 2017). Eerola, Vuoskoski, Peltola, Putkinen, and Schäfer, (2017) provided a comprehensive review on the enjoyment of music-induced sadness and discussed

being moved as one possible aspect resulting in enjoyment. Finally, *moving* music has been found to increase the *transportation* effect of narratives, thereby also reducing critical processing in response to commercials (Strick et al., 2015). See Table 5 for a summary of proposed action tendencies.

Facial or Verbal Expression and Labels, Including Labels Used for Measurement

Many researchers have measured *being moved* by simply asking people to rate whether, or how much, they are *moved* (Batson et al., 1987; Cova & Deonna, 2014; Konečni, 2005; Menninghaus et al., 2015; Schnall et al., 2010; Schubert et al., 2016; Seibt, Schubert, Zickfeld, & Fiske, 2017). Some researchers have also asked people to rate how *touched* they are (Coke, Batson, & McDavis, 1978; Cova & Deonna, 2014; Konečni, 2005; Menninghaus et al., 2015; Schindler et al., 2017; Seibt, Schubert, Zickfeld, & Fiske, 2017; Silvers & Haidt, 2008). Menninghaus and colleagues, as well as Cova and Deonna, have indeed conceptualized their constructs as the denotation of the vernacular German and French cognates respectively, of the English vernacular term *moved*. That is, they define their constructs as the ordinary language semantics of the lexemes—and assume that the semantics of the translated lexemes are essentially the same in at least these languages. They further assume that these vernacular lexemes correspond one-to-one with a distinct psychological system, so that psychology is simply lexicography: *being moved* is whatever people mean when they say that they, or someone else, is *moved*. Menninghaus et al. conducted a cluster analysis of German-speaking participants' ratings *moving* episodes. They identified *im Innersten bewegt sein* (*being deeply moved*), *bewegt sein* (*being moved*), *berührt sein* (*being touched*), *gerührt sein* (*being stirred*), and *Nostalgie* (*nostalgia*) as the *being moved* cluster. Schmidt-Atzert and Ströhm (1983) also identified a cluster containing, *Dankbarkeit* (*gratitude*), *Verehrung* (*adoration/worship*), *Wohll wollen* (*benevolence*), *Zuneigung*

(*affection*), *Zutrauen* (*reliance*), *Mitgefühl* (*sympathy/compassion*), and *Rührung* (the substantive of *gerührt sein*).

Research on elevation and on empathic concern have used quite a large set of lexemes to measure the constructs (Batson et al., 1987; Thomson & Siegel, 2016). On different occasions elevation has been measured using ratings of *touched*, *inspired* (Silvers & Haidt, 2008), *gratitude*, *love* (Algoe & Haidt, 2009), *compassion*, *admiration* (Freeman, Aquino, & McFerran, 2009), *moved*, *uplifted*, *optimistic about humanity* (Schnall et al., 2010), *emotional*, *meaningful*, *tender* (Oliver, Hartmann, & Woolley, 2012), *respect*, *inspiration*, *awe* (Cappellen, Saroglou, Iweins, Piovesana, & Fredrickson, 2013), and *emotionally*, *morally uplifted* (Lai et al., 2014). These measures have not been convergently validated, so they may not measure the same thing. Weidman and colleagues (Weidman, Steckler, & Tracy, 2017) reviewed 10 years of self-report measurements of different emotions published in *Emotion*; they identified 65 emotion categories that the respective researchers purported to be distinct, although many of them overlap with each other conceptually or in the items used to measure them. Highlighting these discriminant validity issues, they found that self-ratings of *moved* were used in various studies to assess the concepts of sympathy (or empathic concern), empathy, and sadness.

Batson and colleagues (1987) have used a comparable arsenal of emotion words to measure the empathic concern construct. Their empathic concern measure includes ratings of *sympathetic*, *moved*, *compassionate*, *tender*, *warm*, and *softhearted*. An earlier version of this list also included *touched*, *empathic*, *concerned*, and *intent* (Coke et al., 1978).

To assess the *kama muta* concept, Fiske and colleagues (2017a) have used ratings of *moved* and *touched* on several occasions (Schubert et al., 2016; Seibt, Schubert, Zickfeld, & Fiske, 2017). They recently validated a scale assessing five aspects of *kama muta*; in the

subscale of verbal labels it includes items on *moved*, *heartwarming*, and *touched* (Zickfeld, Schubert, Seibt, Blomster, et al., 2018).

While there has been a lot of work on the verbal labeling of *being moved*, to our knowledge there has been no research on any non-verbal expressions. Pohling and Diessner (2016), Thomson and Siegel (2016) posit that no distinct facial expression exists for elevation, and Fiske et al (2017a) posit that there is none for *kama muta*. Studies using facial EMG have provided evidence that *being moved* might involve a simultaneous activation of the zygomaticus and corrugator muscles (Wassiliwizky, Jacobsen, et al., 2017; Wassiliwizky, Koelsch, et al., 2017). Finally, Fiske et al. (2017a; 2017) propose that *kama muta* sometimes includes putting one or both palms on the chest, and uttering a phatic exclamation such as *Awww!*.

See Table 6 for a summary of proposed verbal labels and whether non-verbal displays are distinctive. At this point, however, there exists no specific method for an observer to identify instances or degrees of *being moved*.

Cross-Cultural Evidence

In the beginning we posed the question: what is an emotion? One might adopt the perspective that some emotions are universal natural kinds, or, alternatively, that they are infinitely diverse, culturally constructed events. Most evidence regarding *being moved*, especially with regard to the elevation framework, has been collected using US American participants (Thomson & Siegel, 2016). However, other studies have employed French-speaking Swiss (Cova & Deonna, 2014), German (Kuehnast et al., 2014; Menninghaus et al., 2015; Wassiliwizky, Jacobsen, et al., 2017), British (Schnall et al., 2010), Japanese (Tokaji, 2003), Dutch (Damen, 1999; Strick et al., 2015), Chinese, Israeli, Portuguese, Norwegian (Seibt, Schubert, Zickfeld, Zhu, et al., 2017), Finnish (Vuoskoski & Eerola, 2017) or Spanish (Casado, 2006) participants. Because each of these studies operationalized *being moved*

differently, and measured it with items using vernacular lexemes that do not correspond one-to-one with the English lexeme *be moved*, nor with the other lexemes using in English scales, these findings cannot be directly compared. On the other hand, we are not aware of any major inter-cultural differences. *If* there is a term in a language that can be used as a measurement item, then similar findings seem to emerge. However, we note that some languages (e.g., Hindi/Urdu, Bikol, Ancient Greek) seem not to have a distinct, easily accessible lexeme for *being moved*, while others (e.g., Arabic)—indeed, probably most languages—have labels for this emotion in some contexts, but none for it when it appears in other contexts.

Similarly, Fernández-Dols and Russell (2003) have discussed the Spanish expression of *emocionado*, which literally means to *be emotional* and can be best translated as *being moved* or *being touched*. Casado (2006) provided qualitative reports from Spanish speakers showing evidence that *emocionado* is represented distinctively from happiness. The authors also suggested that the concept of *emocionado* could be culture specific, as the full meaning in Spanish it is not easily translatable to English vernacular.

A recent many-labs investigation including 19 different countries from five continents tested how kama muta is experienced cross-culturally (Zickfeld et al., 2018). In general, the study revealed few systematic differences among the countries and provided cross-cultural support for the kama muta concept in every sample, as well as for the KAMMUS measure that was administered in 15 languages. To our knowledge the kama muta model is one of the few constructs making explicit cross-cultural predictions. The concept is based on the anthropologically-grounded Relational Models Theory, which posits that these models are evolutionary prepared mechanisms that act in concert with culture-specific implementations (Fiske, 1991, 1992, 2004). Thus, whereas a sudden intensification of a communal sharing relationship evidently elicits kama muta universally, the communal sharing relationships that exist, and the specific signs that indicate sudden intensification, vary across cultures.

Likewise, the meaning of the experience is different in each context in each culture, and typically differs according to context, gender, age, social class, and race/ethnicity.

Open Questions

There are a number of open questions and issues that the literature on *being moved* has not yet resolved. First, there is no clear consensus on what evokes *being moved*.

Second, most theorizations have based their account of *being moved* directly and operationally on the usage of vernacular lexemes of a specific language such as English, French, or German (Bartsch et al., 2014; Cova & Deonna, 2014; Menninghaus et al., 2015). Cova and Deonna (2014) concluded after a series of thought experiments that some uses of the label *moving* (or *émouvant*) are theoretically irrelevant. While vernacular lexemes can be studied to address linguistic and lexicographic questions, vernacular labels are not likely to denote valid psychological mechanisms (Schubert, Seibt, Zickfeld, Blomster, & Fiske, 2017; Fiske, Schubert, et al., 2017a; Fiske, Seibt, et al., 2017; but see Lakoff, 2016). Nor are vernacular labels used consistently across situations, persons, dialects, or historical time. Moreover, as there is no one-to-one correspondence of lexemes in different languages, an approach that relies on vernacular lexemes from one language (and hence implicit folk psychology and taxonomy from one culture) makes valid cultural comparison problematic, and is unlikely to yield a theory that is valid for all humans (Fiske, Schubert, et al., 2017a; Fiske, Seibt, et al., 2017). Hence, we view the vernacular lexeme *being moved* as a culturally situated term that is not well suited for use as a scientific concept, which is why we have italicized it throughout the text. We prefer to use a conceptually defined technical label for our scientific concept such as elevation, empathic concern or *kama muta*.

A closely related limitation has been the employment of self-report ratings of emotion labels as operational definitions of *being moved* (see Paulhus & Vazire, 2007). As reviewed earlier, these self-report measures have employed a number of different sets of emotion

labels, which complicates the ability to reliably assess distinct emotion categories (Weidman et al., 2017). In addition, most studies have often only assessed feeling labels, while neglecting other aspects of the emotional concept such as the appraisal, bodily sensations, or action tendencies. Coppin & Sander (2016) recommend that for a valid assessment of an emotion concept all of these aspects should be measured. Scholars have also recommended assessing emotions using multiple methods in addition to self-report, such as observational, neurophysiological, physiological or behavioral measures (Coppin & Sander, 2016; Scherer, 2005). However, very few studies of *being moved* have employed neurophysiological or physiological measurements (for an exception see Benedek & Kaernbach, 2011; Wassiliwizky, Jacobsen, et al., 2017; Wassiliwizky, Koelsch, et al., 2017) or qualitative approaches (for an exception see unpublished studies by Cullman, 2015; Shepperd, 2006). Future studies should make increased use of such techniques, especially physiological measurement, neuroimaging, participant observation, and extended interviews. No psychological construct can be validated, nor can any measure of it be validated, without comparing the results from measuring multiple constructs, each assessed using multiple methods that differ in their sources of error and bias (Campbell & D. W. Fiske, 1959; D. W. Fiske, 1986).

Likewise, the validity of a psychological construct as a human universal cannot be established without research in a large number of truly different cultures. Recent findings show that *kama muta* is very similar across samples from 19 nations on five continents (Zickfeld et al., 2018). But like most psychological research, these 19 samples, though differing in the language families of the participants, are all from literate, mostly highly-educated populations that are thoroughly engaged in the modern market economy—and hence atypical of *Homo sapiens* (see Henrich, Heine, & Norenzayan, 2010).

Future Directions

There are a number of questions that have not been explored by the current empirical literature: Are there specific gender differences in experiencing *being moved*, or in the meaning of it for people with different gender identities? Do women feel more often and more intensely *moved* than men? Preliminary findings seem to point at such a difference with women reporting on average higher intensities of *being moved* (Seibt, Schubert, Zickfeld, Zhu, et al., 2017; Zickfeld et al., 2018; see also Raney et al., 2018), but more systematic research is needed. This is a methodological challenge, since women and men may reference different anchors in responding to the same Likert scale.

How long does the experience of *being moved* typically last? Is there a mood corresponding to this emotion? Studies to date have only focused on the immediate and short-lived effects and consequences of *being moved*. Longitudinal research or methods such as diary studies or experience sampling might help in uncovering possible long-term effects and changes. How did the emotion of *being moved* evolve? Are there evolutionary fitness benefits? Fiske and colleagues (2017a) speculate that *being moved* may be a crucial source of solidarity that supports many kinds of social groups, but this needs to be empirically confirmed. Previous research has suggested that *being moved* might foster the connectedness to other (out-)groups (Oliver et al., 2015) and increase humanization of out-groups (Blomster et al., 2018), but how would *being moved* affect relations between antagonistic groups? Would the experience in such a context bring them closer together, or strengthen in-group identity and thereby increase prejudiced or discriminatory behavior toward out-groups? How may this depend on whether what *moves* the person is an interaction between members of the outgroup, between an in-group person and someone in the outgroup, or between persons who belong to neither?

Most studies of *being moved* have used normal adults; there are no data on the ontogeny of *being moved*. It should be illuminative to study it among young children, and also in people who are atypical in their sociality, especially people on the autism spectrum, people who have Williams syndrome, who have early stage fronto-temporal dementia, and who are highly sociopathic, narcissistic, or socially avoidant.

**There Is an Emotion that English Speakers May Label *Being Moved*—
But There Is No Consensus on What Causes It, What Its Valence Is,
Or How to Measure It**

We have systematically reviewed the evidence on appraisal patterns, valence, bodily sensations, motivation and action tendencies, feeling labels, measures and methods for research on the concept of *being moved*, including the literature on intersecting constructs such as elevation and empathic concern.

We are well aware that there is a certain irony in the fact that we offer a comprehensive review of the literature on *being moved*, only to conclude that this term is ill-suited as a scientific concept. Theories should be constructed around scientific constructs that are precisely and explicitly defined, and measured using multiple indicators. Constructs such as cognitive dissonance, projection, releasing stimulus, reinforcement, and elevation, or DSM and ICD diagnoses, are useful because (or to the extent that) their meanings are explicitly defined and consistently used. The purpose of this review was not to promote the use of kama muta theory, but to survey the literature as it has developed by using the term *being moved*. Any theory of being moved should explicate what meta-theory of emotions it is using, and how it understands the relations between specific languages' vernacular labels for emotional states and the emotions themselves (if it distinguishes between labels and psychological states).

In any case, this review shows that a large number of theoretical and empirical proposals converge in the claim that there is an emotion, which English speakers often call *being moved*, that has an identifiable pattern of components and can be operationalized precisely enough to be studied. This is in and by itself an important conclusion, because the label *being moved* is sometimes used broadly to label a variety of emotions, and many other lexemes in English are often used to denote the same emotion in particular contexts.

Researchers differ in their conceptualization and measurement of *being moved*—differ regarding elicitors and appraisal patterns, valence, and labels. Menninghaus and colleagues (2015) have included both positive and negative German vernacular lexemes indicative of the concept that they call *being moved*. Bartsch and colleagues' (2014) conceptualization of *being moved* comprises mostly negative experiences. Not focusing on the labels per se, Haidt (2001) has argued that the concept of *elevation* might be called *moved*, and posits that it is a very positive experience. However, a recent review (Pohling & Diessner, 2016) of the elevation concept argues that *being moved* is broader than elevation and includes negative cases. Batson and colleagues (1987) identify *moved* as part of the *empathic concern* concept, which also contains labels of *sympathetic* or *tenderness*. Finally, *kama muta* theory has argued that there is an emotion that English speakers often label *moved*, but this emotion has many other English labels, and that people sometimes use the term *being moved* to label awe, sadness, or even outrage.

Based on the converging evidence with regard to bodily sensations, motivation, and valence we think that there is a distinct emotion that has often been referred to as *being moved*. However, we think that calling this emotion *being moved* or operationalizing it purely by asking about *moving* experiences (or any other set of labels) should be avoided. In order to get a more valid idea of the concept we should measure several of its aspects, including

appraisals, bodily sensations, valence and arousal, motivation, bodily expressions (if any), and labels.

The study of the concept that is often referred to as *being moved* may help inform a number of research areas. It may be a major source of social solidarity, and it may be crucial to processes such as prejudice and discrimination, and fostering connectedness among groups (Oliver et al., 2015). It also seems to play a major role in the appreciation and enjoyment of arts, psychotherapy, support groups, addiction-recovery groups, marketing, politics, and religion. There is much promising ground to explore.

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Tables

Table 1. Similar emotions.

Related Emotion	Elicitor/Appraisal	Feeling	Action Tendencies	Key Sources
Awe	Perceived vastness, need for accommodation	Positive	Passive contemplation and submission	Keltner & Haidt (2003); Shiota, Keltner, & Mossman (2007)
Admiration	Competence exceeding standards	Positive	Approaching and emulating social models	Onu, Kessler & Smith (2016)
Gratitude	Perception of moral excellence that benefits the self	Positive	Pro-social, moral behavior	McCullough, Kilpatrick, Emmons, & Larson (2001)
Compassion	Suffering, negative events	Positive	Pro-social (desire to reduce other's suffering)	Goetz, Keltner, & Simon-Thomas (2010)
Nostalgia	Negative affect (e.g., loneliness, separation)	Positive	Pro-social/approach	Sedikides & Wildschut (2017)

Table 2. Appraisal patterns and elicitors of *being moved*.

Conceptualization	Appraisal Pattern	Manifestation	Perspective	Key Source
(Moral) Elevation	Witnessing morally virtuous behavior	Moral Virtue/Beauty	Passive	Haidt (2003); Thomson & Siegel (2016); Pohling & Diessner (2016)
Empathic Concern	Perceiving someone in need	Adopting perspective; valuing welfare	Passive	Batson et al. (1987); Batson et al. (2007)
Being Moved (Cova & Deonna)	Positive core values standing out	Transformation from negative to positive	Active/Passive	Cova & Deonna (2014)
Being Moved (Menninghaus)	Significant relationship and critical life events; Aesthetics	High in compatibility with pro-social norms and self-ideals	Active/Passive	Menninghaus et al. (2015)
Kandoh (being emotionally moved)	Overcoming adverse circumstances	Transformation from negative to positive	Passive	Tokaji (2003)
Being Moved (Aesthetic Trinity)	Forgiveness, selfless sacrifice, generosity		Passive	Konečni (2005)
Being Moved (Tan)	Easing difficulty of dear object	Transformation from negative to positive	-	Tan (2009)
Kama Muta	Sudden intensification of communal sharing (CS)	Strengthening, creating CS bond; Transformation from negative to positive	Active/Passive	Fiske et al. (2017); Zickfeld, Schubert, Seibt, Blomster et al. (2018)

Table 3. Valence and arousal of *being moved*.

Conceptualization	Valence	Type of Affect	Arousal	Key Source
(Moral) Elevation	Positive	Positive	-	Haidt (2003)
Empathic Concern	Positive	Positive	-	Batson et al. (1987)
Being Moved (Cova & Deonna)	Positive	Positive	-	Cova & Deonna (2014)
Being Moved (Menninghaus)	Positive	Mixed	Low	Menninghaus et al. (2015)
Being Moved (Bartsch)	Negative	Mixed	Mid	Bartsch et al. (2014)
Being Moved (Frijda)	Positive	Mixed	-	Frijda (2001)
Kama Muta	Positive	Positive	-	Fiske et al. (2017)

Table 4. Sensations of *being moved*.

Conceptualization	Sensations	Autonomic Features	Brain	Key Source
(Moral) Elevation	Moist eyes/Tears, Warmth in the Chest	+ HR + RSA	Medial prefrontal cortex; Anterior Insula, Anterior Cingulate, Hypothalamus, Mesencephalon	Haidt (2003); Piper et al. (2015); Immordino-Yang et al. (2008)
Empathic Concern	-	-	-	-
Being Moved (Cova & Deonna)	Tears, Warmth in the Chest, Lump in the Throat	+ HR*	-	Cova & Deonna (2014)
Being Moved (Menninghaus)	Tears, Chills/Goosebumps	+ HR + RR + SCR	Subcortical areas of basic reward system	Menninghaus et al. (2015); Wassiliwizky et al. (2017)
Being Moved (Benedek & Kaernbach)	Goosebumps	+ HR o RR + RD + SCR o SCL	-	Benedek & Kaernbach (2011)
Being Moved (Aesthetic Trinity)	Tears, Chills/Thrills/ Lump in the Throat*	-	-	Konečni (2005; 2011)
Being Moved (Tan)	Tears*	-	-	Tan (2009)
Being Moved (Scherer & Zentner)	Tears/Moist Eyes, Chills/Goosebumps*	-	-	Scherer & Zentner (2001)
Kama Muta	Moist Eyes/Tears, Chills/Goosebumps, Warmth in the Chest, Lump in the throat	-	-	Fiske et al. (2017); Zickfeld, Schubert, Seibt, Blomster et al. (2017)

Note. Heart Rate (HR), Respiratory Sinus Arrhythmia (RSA), Respiratory Rate (RR), Respiratory Depth (RD), Skin Conductance Response (SCR), Skin Conductance Level (SCL); *not empirically tested; + = increase, o = no change

Table 5. Action tendencies of *being moved*.

Conceptualization	Action Tendency	Patterns	Key Source
(Moral) Elevation	Approach	Affiliation, Love, Moral Action, Pro-social/Altruistic	Thomson & Siegel (2016); Pohling & Diessner (2016)
Empathic Concern	Approach (<i>Empathy-Altruism Hypothesis</i>)	Pro-social/Altruistic, Relieving other's need	Batson (2010); Batson et al. (1987)
Being Moved (Cova & Deonna)	Reorganization of hierarchy of values and priorities	Pro-social/Altruistic	Cova & Deonna (2014)
Being Moved (Menninghaus)	Approach	Bonding, Pro-social/Altruistic, Promoting Bonds	Menninghaus et al. (2015)
Being Moved (Bartsch)	Insight	Satisfy eudaimonic need, meaning, personal growth	Bartsch et al. (2014)
Being Moved (Tan)	Approach, Submission	Bonding, Signaling Significance	Tan (2009)
Kama Muta	Approach	Sustaining, engaging in CS relation	Fiske et al. (2017)

Table 6. Labels for *being moved*.

Conceptualizations	Verbal	Non-Verbal	Key Source
(Moral) Elevation	moved, touched, inspired, gratitude, love, compassion, admiration, uplifted, optimistic about humanity, etc.	none distinct	Thomson & Siegel (2016); Pohling & Diessner (2016)
Empathic Concern	moved, sympathetic, compassionate, tender, warm, softhearted	-	Batson et al. (1987)
Being Moved (Cova & Deonna)	moved, touched	-	Cova & Deonna (2014)
Being Moved (Menninghaus)	moved, deeply moved, touched, stirred, nostalgia	-	Menninghaus et al. (2015)
Being Moved (Aesthetic Trinity)	moved, touched	-	Konečni (2005; 2011)
Being Moved (Benedek & Kaernbach)	moved	-	Benedek & Kaernbach (2011)
Kama Muta	moved, touched, heartwarming, part of something larger than myself, nostalgia	none distinct	Fiske et al. (2017); Zickfeld, Schubert, Seibt, Blomster et al. (2018)