

ARTICLE

Context is Everything (in Emotion Research)

Katharine H. Greenaway^{1†}  | Elise K. Kalokerinos^{2†} | Lisa A. Williams^{3†} 

¹Melbourne School of Psychological Sciences, University of Melbourne, Australia

²Faculty of Psychology and Educational Sciences, KU Leuven

³School of Psychology, UNSW Australia, Australia

Correspondence

Katharine Greenaway, Melbourne School of Psychological Sciences, University of Melbourne, Parkville, Australia
Email: katharine.greenaway@unimelb.edu.au

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Abstract

As in many areas of psychological inquiry, *context* matters for how emotion is experienced, expressed, perceived, and regulated. While this may sound like a truism, emotion research does not always directly theorize, manipulate, or measure emotion with context in mind. To facilitate this process, we present a framework of contextual features that shape emotion-related processes, and highlight several key factors that have been shown to matter in emotion research. We make four recommendations which we believe will help to better integrate context in emotion science. We argue that a deeper collective understanding, interrogation, and integration of context will propel the field forward theoretically and methodologically, and enhance researchers' ability to probe the mechanisms of human psychological experience. While our focus is on emotion research, we believe that the context framework and associated recommendations will also be useful to other fields of social psychological and personality science.

1 | INTRODUCTION

"Social scientists of the most varying standpoints agree that human action can be rendered meaningful only by relating it to the contexts in which it takes place. The meaning and consequences of a behavior pattern will vary with the contexts in which it occurs. This is commonly recognized in the saying that there is a "time and a place for everything." (Gouldner, 1955, p12).

As Gouldner's quote implies, and conventional wisdom holds, *context is everything*. Few social scientists would disagree that psychological experience is fundamentally shaped by context: what we think, how we feel and act, and to some extent *who we are* depends on the context in which we find ourselves. Context acts in myriad ways to influence cognitions, emotions, and behaviors, and shapes how these outcomes are perceived and interpreted by others (Barrett, Mesquita, & Smith, 2010; Ledgerwood, 2014; McNulty & Fincham, 2012). In this way,

[†]All authors contributed equally to this work

psychological processes cannot be interpreted independent of the context in which they occur, because it is the context that imbues them with meaning.

Despite this apparent truth, context is sometimes an unspoken force in psychological research. Although most researchers would agree that context matters, fewer researchers endeavor to systematically document the empirical reality of how, when, and why context influences psychological processes. In this article, we review the overarching impact of context in emotion science—an area of research that spans social and personality psychology disciplines. Just as with psychological processes more broadly, *emotion processes* cannot be interpreted without context, because context both produces emotion and shapes how emotion is interpreted. Thus, emotion science makes an excellent case study for unpacking the impact of context. To this end, we review current understanding of the role of context in shaping emotion processes, including emotion experience, expression, perception, and regulation. We build upon this promising work to make recommendations for how the field can move toward a more realized understanding of the rich role of context.

2 | CONTEXT IN EMOTION SCIENCE

We adopt Burke, Joseph, Pasick, and Barker' (2009) definition of context as a collection of sociocultural forces that shape experience, as this definition highlights the diverse nature of context. These sociocultural forces range from micro-level (intra- and inter-) personal factors that differentiate individuals and groups to macro-level political and historical factors that differentiate cultures. To better understand the interface between emotion and context, it is important to identify which contextual factors carry the potential to impact emotion processes. A reading of the emotion literature that addresses context explicitly (e.g., Aldao, 2013; Barrett, Mesquita, & Gendron, 2011; Mesquita & Boiger, 2014; Scherer, Clark-Polner, & Mortillaro, 2011) suggests several broad categories of contextual factors: person, situation, and culture. We have organized these contextual features into a framework presented in Figure 1, with levels ranging from micro-level (person) to macro-level (culture).

Contextual factors within each of the levels in Figure 1 can take several forms. Factors at the personal level (Level 1) comprise constructs that are internal to an individual, including demographics, personality, and stimulus appraisals. Factors at the situational level (Level 2) involve characteristics of the immediate environment and of the social relationships within that environment. Factors at the cultural level (Level 3) constitute a range of worldview factors that are common to a collection of individuals. While this framework captures contextual factors broadly in a way that can be applied to many psychological processes, we focus particularly on their relevance for emotion processes.

Our purpose here is not to present a definitive list of all contextual factors relevant to emotion; such a list would be prohibitively long. Instead, we focus on what we believe are core categories of contextual factors. Other researchers have highlighted the importance of context within specific emotion subfields, including emotion experience, expression, perception, and regulation (e.g., Aldao, 2013; Aldao & Tull, 2015; Barrett et al., 2010; Barrett et al., 2011; Bonanno & Burton, 2013; Coifman & Bonanno, 2009; Hess & Hareli, 2015; Matsumoto & Sung Hwang, 2010; Mesquita & Boiger, 2014; Scherer et al., 2011). Our intention is to provide a framework that allows for synthesis

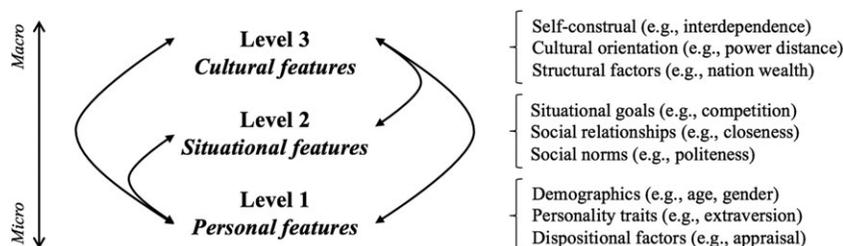


FIGURE 1 Contextual influences on emotion processes

across these emotion subfields in conceptualizing context and its impact on emotion. This framework represents a common language for emotion researchers to use in understanding and documenting the role of context.

In the following sections, we present a selective review of six contextual factors (two per level). We chose these particular contextual factors because they are well-studied in the emotion literature and thus have sufficient prior research to adequately document their impact. We structure our review by discussing the impact of our focal contextual factors on the four processes of emotion experience, expression, perception, and regulation. In doing so, we aim to highlight the utility of considering context at the different levels of analysis, and potential interactions between these levels (see Figure 1). We also aim to demonstrate that excellent research examining context is already being done, and that in integrating that research more fully using our framework, we are able to understand emotion more holistically.

2.1 | Focal Level 1 personal factors

Many emotion theories acknowledge the role of personal-level factors in shaping emotion processes. For example, appraisal theories (e.g., Ellsworth & Scherer, 2003; Frijda, 1986; Mackie, Devos, & Smith, 2000; Roseman, 1984) posit that a person's evaluation of a stimulus gives rise to experienced emotion, and as such, two people can have different responses to the same stimulus. Myriad personal-level variables have been implicated in emotion processes, including demographic variables like age (Carstensen et al., 2011) and gender (Nolen-Hoeksema, 2012), and individual differences like self-esteem (Heimpel, Wood, Marshall, & Brown, 2002) and personality (Watson & Clark, 1992). Here, we review evidence for the impact of two particularly well-studied personal level factors: gender, and the personality traits extraversion and neuroticism.

2.2 | Focal Level 2 situational factors

Several theoretical perspectives highlight the impact of situational features on emotion processes. These range from functionalist theories, which outline the adaptive utility of emotions in particular situations (e.g., K. C. Barrett & Campos, 1987; Tooby & Cosmides, 1990), to psychological constructivist approaches (e.g., Barrett & Bliss-Moreau, 2009; Russell, 2003), which argue that the experience of valence and arousal are constructed into emotional experience based on interpretation of context, including situational context. There are, of course, many different situational factors that could be expected to influence emotion processes. Here, we review the evidence for how relational factors (i.e., closeness between interaction partners) and goal-based factors (i.e., situations of competition vs. cooperation) shape these processes.

2.3 | Focal Level 3 cultural factors

Evidence that cultural factors shape emotion processes abounds. This is true of large-scale structural dimensions like nation wealth (Diener & Biswas-Diener, 2002) as well as psychological mindsets resulting from differences in cultural orientation. While there are other dimensions of culture beyond country-level individualism/collectivism, it is these dimensions, and the related self-construal states of independence/interdependence, that have received the most research attention in explaining cultural differences in emotion, and it is these factors that we focus on in our review.

3 | CONTEXT IN EMOTION EXPERIENCE

3.1 | Level 1

With regard to gender, stereotypes suggest that women experience emotion more strongly than men (Barrett & Bliss-Moreau, 2009), yet gender differences do not consistently emerge in self-reported emotional experience (e.g. Barrett,

Robin, Pietromonaco, & Eysseil, 1998; Kring & Gordon, 1998). In fact, observed differences disappear when a manipulation is implemented suggesting that gender norms are comparable across men and women (Grossman & Wood, 1993).

In terms of personality traits, the relationship between positive emotion experience and extraversion is central to personality theories (e.g., Costa & McCrae, 1980), and is robust across many specific positive emotions (Shiota, Keltner, & John, 2006), although may be limited to high-activation positive affect (Yik & Russell, 2001). Likewise, personality theory highlights the link between neuroticism and greater experience of negative emotions such as anxiety, depression, and hostility (e.g., Costa & McCrae, 1980). In addition, these personality traits govern emotional reactivity (i.e., an individual's response to Level 2 situational factors): in negative situations, people high in neuroticism tend to feel more negative, and in response to positive situations, people high in extraversion tend to feel more positive (Ng & Diener, 2009).

3.2 | Level 2

Situational features of context, such as the presence and closeness of others, have been shown to influence emotion experience. While some studies show no moderation by closeness (Devereux & Ginsburg, 2001; Jakobs, Manstead, & Fischer, 2001; Yamamoto & Suzuki, 2006), others show amplified emotion experience in the presence of a friend, versus a stranger, versus alone (Barrett et al., 1998; Jakobs, Fischer, & Manstead, 1997; Yamamoto & Suzuki, 2012). Research in the latter case suggests that enhanced emotion experience in the presence of others appears to depend further on the role or identity of the other: people experience more intense emotion in the presence of others who are co-experiencing an event (Jakobs et al., 1997) or those who are of the opposite sex to the participant (highlighting further potential for interaction between factors at Levels 1 and 2; Barrett et al., 1998). In all, though, the findings suggest that the effects of other people on emotion experience are less reliable than the effects on emotion expression, which we review below.

In addition to *who* is involved in a given situation, there is evidence that active goals in the situation (e.g., competition vs. cooperation) can influence emotion experience. For example, cooperation is associated with increases in reported positive emotion experience (Tamir & Ford, 2012), whereas competition can increase both positive and negative emotion experience (Hanin, 2000). Predictably, the impact of competition depends largely on the outcome: people tend to show greater positive emotion in competitive contexts when they win and an opponent loses, and greater negative emotion when they lose and an opponent wins (Lanzetta & Englis, 1989).

3.3 | Level 3

People with an independent orientation focus on the self and thus tend to experience more egoistic emotions (e.g., pride), while people with interdependent orientations focus on the social context and thus tend to experience more other-focused emotions (e.g., sympathy; Markus & Kitayama, 1991). Researchers also speculate that people from collectivist cultures interpret their emotions through cognitive lenses of contradiction, change, and context, which makes emotion experience less intense and reactive to Level 2 situational features compared to people from individualist cultures (De Vaus, Hornsey, Kuppens, & Bastian, 2017).

However, despite observed differences, some research suggests that emotion experience does not in fact differ greatly across cultures (Oishi, 2002; Scherer & Wallbott, 1994; Tsai, Chentsova-Dutton, Freire-Bebeau, & Przymus, 2002; Tsai, Levenson, & Carstensen, 2000). Rather, cultures appear to differ more in terms of *ideal* emotion experience than *actual* emotion experience (Ford & Mauss, 2014; Tsai, Knutson, & Fung, 2006). It may even be the case that apparent cultural differences in emotion experience are better explained by genetic factors (which vary across nations; Allik & McCrae, 2004) than environmental factors (Diener & Lucas, 1999; Lykken & Tellegen, 1996). Yet, because much cultural work neglects to measure Level 1 personal factors, the relative impact of personal vs. cultural context on emotion experience is unclear (Tsai et al., 2006).

4 | CONTEXT IN EMOTION EXPRESSION

4.1 | Level 1

In terms of gender, women appear to be more emotionally expressive than men both when assessed via self-report (Gross & John, 1995) and via observer ratings (Kring & Gordon, 1998). In terms of personality, extraversion is positively, and neuroticism negatively, associated with observer-rated expressiveness (Riggio & Riggio, 2002). In both cases, however, these differences may depend on emotional valence. Among adults, extraversion is associated with self-reported *positive* emotion expression, and neuroticism with self-reported *negative* emotion expression (Gross & John, 1995). Likewise, in children, mother-rated extraversion predicted positive emotion expression, and mother-rated neuroticism predicted negative emotion expression (Abe & Izard, 1999).

4.2 | Level 2

Research shows that the simple presence of another person elicits more facial emotion expression compared to situations in which people are alone (Jakobs et al., 2001; Yamamoto & Suzuki, 2006; cf. Yamamoto & Suzuki, 2012). Moreover, expressive displays appear to be amplified when that person is a close other and dampened when that person is a stranger (Barrett et al., 1998; Buck, Losow, Murphy, & Costanzo, 1992; Devereux & Ginsburg, 2001; Fischer, Becker, & Veenstra, 2012; Jakobs et al., 2001; Smoski & Bachorowski, 2003; Wagner & Smith, 1991; Yamamoto & Suzuki, 2006). This seems to be due to the communicative function of emotion: people report stronger desire to communicate with friends than with strangers (Jakobs et al., 2001).

Situational goals also influence emotion expression in ways that mirror effects on experience. Unsurprisingly, winners express positive emotions such as pride and losers express negative emotions such as shame (Matsumoto & Willingham, 2009; Tracy & Matsumoto, 2008). Other work suggests that expressions of certain emotions, such as pride, signal of high status and could serve to intimidate potential challengers in competitive contexts (e.g., Shariff & Tracy, 2009). Thus, the competitive or cooperative nature of an interaction shapes how people express emotion in strategic ways.

4.3 | Level 3

In general, cultural individualism is positively correlated with higher expressivity norms, particularly for positive emotions (Matsumoto, Yoo, & Fontaine, 2008a), although people with an interdependent orientation appear more likely to express other-focused emotions (e.g., sympathy, shame) than people with an independent orientation (Markus & Kitayama, 1991). These effects may also depend on the Level 2 situational context. For example, people from individualistic cultures are more likely to express guilt about violating societal standards, while people from collectivistic cultures are more likely to express guilt about harming someone else (Stipek, Weiner, & Li, 1989). Moreover, emotion expressions may have different meanings in different cultures. That is, in individualistic cultures, emotion expression is thought to reflect genuine internal experience, whereas in collectivistic cultures, emotion expression is thought to serve more instrumental motives not directly linked to true experience (Matsumoto, 1989; Peng & Nisbett, 1999). This suggests that there is value in considering not only interactions across contextual levels but also in comparing and contrasting the effects of context across multiple dimensions of emotion, such as experience and expression.

5 | CONTEXT IN EMOTION PERCEPTION

5.1 | Level 1

A large body of research has demonstrated that women are more accurate than men at correctly recognizing others' emotions (Hall, 1978; Hall, Carter, & Horgan, 2000) even when given only minimal stimulus information (Alaerts,

Nackaerts, Meyns, Swinnen, & Wenderoth, 2011; Hall & Matsumoto, 2004; Hoffmann, Kessler, Eppel, Rukavina, & Traue, 2010). Only limited work has examined how personality traits shape emotion perception. Early research suggested that extraverts are more accurate in perceiving nonverbal signals, including emotional information (Akert & Painter, 1988). However, Matsumoto et al. (2000) directly examined the role of extraversion and neuroticism in emotion recognition across four studies and found superior recognition among extraverts in only one study.

5.2 | Level 2

Perhaps because expressive displays are more intense when with a close other, these expressions are more easily recognized than those made in the presence of a stranger (Wagner & Smith, 1991). Research also shows that the perceived appropriateness of emotion expressions depends on salient situational goals. For example, positive emotion expressions are perceived to be appropriate in cooperative contexts, because the affiliative quality of these emotions match the implied goal (e.g., Fridlund, 1991; Greenaway & Kalokerinos, 2017; Hess & Fischer, 2013; Van Kleef, De, & Manstead, 2004; Van Kleef, De, & Manstead, 2010).

5.3 | Level 3

While there is evidence that cultural features influence emotion perception and recognition, the universality of this process has been hotly debated, with some researchers arguing for evolved uniformity in expression and perception (Ekman, 1992) and others arguing that cultural differences exist in emotion conception and, by extension, perception (Gendron, Roberson, van der Vyver, & Barrett, 2014). There is nevertheless strong evidence that people find it easier to recognize emotions that are expressed by cultural ingroup members rather than outgroup members (Elfenbein & Ambady, 2002). This may be due to expression “accents” (Elfenbein, Beaupré, Lévesque, & Hess, 2007), such that Western perceivers fixate on a wider variety of facial features than East Asian perceivers, who tend to focus mainly on the eyes (Jack, Blais, Scheepers, Schyns, & Caldara, 2009).

6 | CONTEXT IN EMOTION REGULATION

6.1 | Level 1

Women report using most emotion regulation strategies more than men (Nolen-Hoeksema, 2012), including generally maladaptive strategies such as rumination and generally adaptive strategies such as reappraisal (Nolen-Hoeksema & Aldao, 2011). On a methodologically relevant note, there is evidence that women are more effective at following emotion regulation instructions: meta-analysis has revealed that studies with a higher proportion of women yield larger effects of emotion regulation manipulations (Webb, Miles, & Sheeran, 2012). In terms of personality, people high, compared to low, in neuroticism are less inclined to down-regulate negative emotions both in lab tasks (Ng & Diener, 2009) and longitudinally (Kokkonen & Pulkkinen, 2001)—perhaps because these individuals are more comfortable with negative emotion experience and expression as outlined above. In line with this, neuroticism has been linked with decreased use of strategies that are effective in reducing negative emotion, such as reappraisal (Egloff, Schmukle, Burns, & Schwerdtfeger, 2006; Gross & John, 2003). In contrast, extraversion is associated with more putatively adaptive strategies such as savoring positive emotions (Ng & Diener, 2009), seeking social support (Kokkonen & Pulkkinen, 2001), and reappraisal (Gross & John, 2003) to reduce negative emotions.

6.2 | Level 2

People report regulating their emotions more in social compared to non-social contexts, and more with strangers compared to friends (Gross, Richards, & John, 2006), which is interesting given that emotions appear to be less

intense in the former compared to the latter case, as reviewed above. Situational goals also influence emotion regulation processes: in line with value-expectancy models of emotion, people aim to up-regulate positive emotion and down-regulate negative emotion when motivated to cooperate, and aim to down-regulate positive emotion and up-regulate negative emotion when motivated to compete (Tamir & Ford, 2012).

6.3 | Level 3

One consistent cultural difference emerges in willingness to suppress certain emotions. Expressive suppression is considered a maladaptive emotion regulation strategy in many Western countries, but is considered acceptable, and even desirable, in East Asian cultures (Matsumoto, Yoo, & Nakagawa, 2008b). The detrimental consequences of suppression do not emerge among people with an interdependent orientation, either because cultural norms validate the use of this emotion regulation strategy (Butler, Lee, & Gross, 2007) or because suppression itself can be used to promote social harmony (Kalokerinos, Greenaway, & Casey, 2017), which is valued by interdependently focused people (Le & Impett, 2013). There is also cultural variation in use of other emotion regulation strategies, such as cognitive reappraisal. This is partly influenced by cultural differences in perspectives, with individuals in Western cultures tending to take a first-person perspective and individuals in East Asian cultures tending to take a third-person perspective (De, Boiger, & Mesquita, 2013). This immersive versus distancing regulatory style has implications for the regulation of emotion through reappraisal, with the former style up-regulating, and the latter style down-regulating, emotion experience (Grossmann & Kross, 2010). Thus, there are consistent cultural differences in the use and outcomes of different emotion regulation strategies that are tied to the way people perceive their cultural world.

7 | CONSIDERING CONTEXT COMPREHENSIVELY

In this very brief summary of six contextual effects on emotion processes of experience, expression, perception, and regulation, there is clear value in considering context at multiple levels of analysis. For example, we have observed the importance of assessing personal traits (a Level 1 factor) alongside cultural orientation (a Level 3 factor), because differences in the former—if not measured and controlled for—may present as differences in the latter. Also observable from this summary is that certain factors may affect emotion through mechanisms at different levels of analysis. For example, cultural orientation (Level 3) may influence emotion through situational factors (e.g., affecting interpretation of social relationships) or personal factors (e.g., affecting appraisals of the environment).

Another possibility concerns interactions across levels—for instance between personal factors (Level 1) and situational factors (Level 2), such that certain people are more emotionally reactive to certain situations than others (in line with general social and personality approaches; Higgins, 1990; Ross & Nisbett, 1991); or between cultural factors (Level 3) and situational factors (Level 2), such that particular cultural orientations increase the likelihood of expressing particular emotions in particular situations (e.g., Schwartz, Zamboanga, & Weisskirch, 2008). Moreover, there may be interactions between contextual factors *within* levels. For example, the impact of goal-based features of the situation (e.g., competition) on emotion processes may depend on relational features of the situation (e.g., the nature of the relationship between participants; Van Van Kleef et al., 2010).

Thus, contextual factors at one level may act as mediators or moderators of contextual factors at another level or within the same level. Locating these mechanisms in the context framework we propose (i.e., Levels 1–3) will result in greater precision in theorizing about which processes are operating to bring about specific differences in emotion. Articulating and cataloging the effects of higher-order interactions within and across levels is an endeavor that can benefit emotion science as a whole.

To provide preliminary data about how prevalent these types of interactions may be, we coded all 125 articles that appeared in a premier affective science journal, *Emotion*, from October 2015 to September 2016 for whether they assessed personal, situational, or cultural contextual features as well as cross-level interactions between these

three groups of features. The results of this analysis are presented in Table 1, and revealed that over three quarters of articles assessed personal factors, while less than a quarter assessed situational factors, and fewer than 5% assessed cultural factors. On the latter point, we note that culturally-based emotion research of this sort may be more likely to appear in journals oriented toward cultural psychology and so this is likely to be an underestimation. Notably, fewer than 20% of articles assessed cross-level interactions. Among these, person (Level 1) by situation (Level 2) interactions were most frequent, with only a very small number assessing person (Level 1) by culture (Level 3) interactions. No articles assessed situation (Level 2) by culture (Level 3) interactions; nor did any investigate higher order interactions between all three levels.

Of course, this reflects only a fraction of the papers published on emotion processes in a short timeframe and is limited to one journal, but we believe it provides initial insight into the type of articles published in this area. We encourage future efforts to document the assessment of context across a broader range of journals and time frames. We contend that continuing to unpack two- and three-level contextual interactions is a valuable direction for emotion science to take in future investigations.

8 | CONTEXT IN EMOTION METHODOLOGY

Having introduced a framework to catalog the impact of context on emotion processes, and outlined how existing work can be reviewed using this framework, we now discuss more practical matters concerning how researchers incorporate context into the study of emotion. Specifically, we review methods of manipulating emotion and measuring emotion with context in mind.

8.1 | Manipulating Emotion

All manipulations of emotion capitalize on context to one degree or another—given that they are by necessity oriented around varying stimuli so as to produce an emotional experience. Yet, as we highlight in this section, different emotion manipulations “do” context in different ways. Here, we highlight the trade-offs involved in manipulating emotion using contextual features at one particular level of our taxonomy. We highlight manipulations that capitalize on factors at different levels of our framework, and discuss the advantages and disadvantages of such manipulations for establishing a broader understanding of context.

One popular approach to manipulating emotion is to expose participants to an emotion-eliciting stimulus or set of stimuli. The majority of such manipulations involve passively viewing images, videos, or sounds that have been pretested to elicit the targeted emotion. Showing the popularity of this approach, there exist several stimulus corpora of emotion-eliciting images (Dan-Glauser & Scherer, 2011; Lang, Bradley, & Cuthbert, 2008; Marchewka,

TABLE 1 Proportion of papers in *Emotion* from October 2015 (Volume 15, Issue 5) to September 2016 (Volume 16, Issue 6) assessing context

	Number	Percent
Total papers	125	100.00%
Articles assessing personal contextual features	97	77.60%
Articles assessing situational contextual features	27	21.60%
Articles assessing cultural contextual features	5	4.00%
Articles assessing personal x situational interactions	19	15.20%
Articles assessing personal x cultural interactions	2	1.60%
Articles assessing situational x cultural interactions	0	0.00%

Note. Further details of the coding available from the authors upon request.

Żurawski, Jednoróg, & Grabowska, 2014), sounds (Bradley & Lang, 1999), and videos (e.g., Rottenberg, Ray, & Gross, 2007; Schaefer, Nils, Sanchez, & Philippot, 2010).

Another popular emotion manipulation adopts a situation-based operationalization of context. Participants are led to experience an emotion-eliciting situation live or to imagine experiencing that situation. For instance, one established way to elicit anger is to stage a situation in which the participant is insulted (e.g., Harmon-Jones & Sigelman, 2001), or to ask a participant to imagine being insulted (Keltner, Ellsworth, & Edwards, 1993). Another example is providing feedback indicating high performance levels along with social acclaim to induce pride (Williams & DeSteno, 2008, 2009). Other work has elicited compassion by exposing participants to a confederate's pathos-inducing story (Condon & DeSteno, 2011).

These stimulus- and situation-based approaches to emotion manipulation rest on the assumption that most, if not all, participants will engage with the stimulus or situation in a consistent manner, thus bringing about the experience of the target emotion (i.e., if person $X_{1...n}$ experiences Y situation, they will experience Z emotion). As a general rule, both approaches focus on the power of the situation (Level 2) to elicit emotional experience. The consistency of such approaches across participants is a clear benefit from an experimental control perspective, but this comes with a trade-off for incorporation of personal-level (Level 1) or cultural (Level 3) contextual influences. Indeed, controlling contextual factors is not the same as considering them from an empirical point of view.

Research shows that this trade off (i.e., a focus on Level 2 at the expense of Levels 1 and 3) may obscure important sources of variance. Personal factors—such as appraisals—have a powerful impact on how situations shape emotional experience (Siemer, Mauss, & Gross, 2007). Indeed, other research shows that both personal *and* cultural factors can moderate the impact of situation-based emotion manipulations on emotion experience (Kuppens et al., 2017). Even more broadly, a meta-analysis by Lench, Flores, and Bench (2011) revealed how a variety of different contextual factors impact the effectiveness of emotion manipulations. For instance, the presence vs. absence of a cover story, group vs. single testing, the use of between vs. within-subjects designs, and even the mode of manipulation (e.g., images vs. films) all determine the degree to which an emotion manipulation gives rise to the targeted emotional experience (Lench et al., 2011). This trade-off is not one that is easily resolved if researchers desire consistency of content across participants within a particular emotion manipulation condition, which is of course a defensible aim. As such, it is important for researchers who utilize this approach to recognize potential sources of variability stemming from contextual features at Levels 1 and 3.

Other emotion manipulations cater to each participant idiosyncratically, capitalizing on contexts that the participants themselves identify as relevant for the experience of a particular emotion. Many such manipulations rely on autobiographical recall of an event during which the participant experienced either a particular emotion (e.g., disappointment) or was in a situation involving emotion elicitors (e.g., a time in which an expectation for a positive outcome was not met; Zeelenberg et al., 1998). Idiographic approaches also exist for sound inductions, in which participants provide music that they feel elicits particular emotions in them (e.g., Carter, Wilson, Lawson, & Bulik, 1995). While such approaches inherently acknowledge the relevance of personal context (Level 1) in eliciting emotion, the kinds of situations people recall or stimuli they select is typically not examined, thus ignoring contextual influences at Level 2. In light of this, a more considered use of idiographic manipulations—perhaps turning to coding of selected or recalled content—may represent one way to better incorporate context in these manipulations. Such an analysis might involve asking participants to describe the event or stimulus that evokes a particular emotion, and coding this on dimensions that have been identified by researchers to be core contextual factors affecting people's interpretation of their environment (e.g., Parrigon, Woo, Tay, & Wang, 2017; Rauthmann et al., 2014; Rauthmann & Sherman, 2018). These coding schemes include factors such as valence and importance of the situation, and presence or absence of other people.

One step that researchers could take to better understand the role of context in emotion manipulations at all levels is to give more thought to variation that may occur in the research context itself. Laboratories are often assumed to be context-neutral spaces in which participants respond to stimuli in a manner relatively free from contextual influence. We believe researchers should be open to the idea that laboratories themselves represent a

unique context (for instance, they often create an implicit power differential between ‘experimenter’ and ‘experimented’; see Haslam, Reicher, Millard, & McDonald, 2015). The presence or absence of recording equipment, experimenters, and other observers; the exact wording of experimental instructions; and demographic characteristics of the experimenters all may influence the impact of emotion manipulations (Lench et al., 2011; Webb et al., 2012). As such, the emotions these manipulations induce may be more contextually-constrained than typically presumed, and a more thorough consideration and reporting of such factors could be helpful in better understanding the contextual boundaries of established effects of emotion manipulations. This approach has the added benefit of meeting recommendations by the open science movement for transparency in reporting of methodological details.

8.2 | Measuring Emotion

Much emotion research relies on participants' self-reported emotional experience either in the moment (state emotion) or at a dispositional level (trait emotion). Many self-report emotion measures are devoid of contextual information outside the question stem (e.g., “while watching the video, to what extent did you feel...”)—simply asking respondents to rate the intensity or frequency with which they have experienced, are experiencing, or anticipate experiencing one or more emotional descriptors (e.g., Positive and Negative Affect Schedule; Watson, Clark, & Tellegen, 1988). Infrequently, items within a self-report emotion systematically vary context (e.g., competition vs. collaboration; Tamir & Ford, 2012), but such measures are necessarily limited in scope, given that it is simply not plausible to integrate all aspects of context in a given measure. Further, such measures may also be difficult to deploy retrospectively, since memory of emotion-related context can sometimes be less-than-ideally detailed (Heuer & Reisberg, 1990; Kensinger, 2009). As such, the challenge to incorporate context in the self-report measurement of emotion is substantial.

Of course, not all emotion measurement relies on self-report. Alongside subjective experience, which can be captured by self-report, emotion also comprises expression, behaviors, and physiological responses. However, as with self-report methods, non-self-report methods do not themselves address context. Therefore, while such measures may be free from self-report bias, they are by no means inherently more contextually integrative—it is the intent and research focus of the researchers, rather than the measurement type *per se*, that generates information about the impact of context on emotion processes.

The burden then falls on researchers to adequately document context in other ways. This will often involve coding contextual aspects the environment that might conceivably affect emotion measurement. We have reviewed some of the ways that researchers might do this for experimental lab research in the section on manipulation of emotion, above. Another option would be for researchers to capture context as it occurs in daily life, as achieved by experience sampling methods (ESM; e.g., Conner, Tennen, Fleeson, & Barrett, 2009). ESM involves studying processes in environments in which they naturally occur without interruption aside from actual ESM measurement (e.g., via electronic device), and thus allows researchers to capture the richer variety of contextual factors encountered by a participant in daily life.

Research that capitalizes on ESM designs to assess context shows the promise this technique provides in better articulating context, and particularly in identifying cross-level interactions as per our taxonomy. For example, Vogel, Ram, Conroy, Pincus, and Gerstorf (2017) assessed emotion profiles of individuals in different social interactions, and identified features of the social context—mostly personal and situational—that impacted emotion valence and arousal during interactions with others. Oishi, Diener, Napa Scollon, and Biswas-Diener (2004) examined interactions between situational and cultural contextual features in daily life, and demonstrated that the influence of the situation on emotion was different across cultures. Myin-Germeys, Os, Schwartz, Stone, and Delespaul (2002) found that individuals with a higher risk for psychosis (a personal feature) were more emotionally reactive to stressors (a situational feature) in daily life. We are excited to see research of this sort emerging, and hope similar ground-breaking approaches continue to be adopted in the field, including in lab research.

9 | SCIENTIFIC BENEFITS OF INCORPORATING CONTEXT

We have argued that a richer and more comprehensive emotion literature will emerge if researchers pay closer attention to the role of context, and have provided examples of how research incorporating context in studies that manipulate and measure emotion advances this goal. The result of this process will be a more theoretically informative and empirically reproducible science.

Some researchers have cited contextual variation as an underlying factor in failures to replicate psychological effects (Biello, 2017), and debate about failures to observe a previously documented finding often comes down to whether context did or should matter (e.g., Van Bavel, Mende-Siedlecki, Brady, & Reinero, 2016). Yet, others have observed that such explanations are almost always post hoc and, moreover, that such moderators are unlikely to be present in replications (Srivastava, 2015). We do not wish to downplay the importance of conducting rigorous science that discovers basic truths about human psychology. However, it is a basic psychological truth in and of itself that psychological processes vary across contexts. Advances in the field will require an appreciation of this fact and better theory about *how*, *when*, *why* and for *whom* context moderates emotion processes so these explanations can be made a priori and tested accordingly.

The outcome of in-depth contextual analysis of emotion processes will be a more robust science. It will enable us as researchers to understand when our effects occur, and when (and why) they do not (Petty & Cacioppo, 2016). Thus, better theoretical and empirical specification of context prior to data collection will be undeniably beneficial. Emotion science—indeed, psychological science more broadly—can equip itself now with the theoretical backing and empirical findings required to engage in such debate.

10 | RECOMMENDATIONS FOR INCORPORATING CONTEXT

In this article, we presented a framework that organizes relevant contextual factors into three levels. We reviewed literature that speaks to the importance of considering context at and across all three levels for emotion experience, expression, perception, and regulation. Throughout, we have made suggestions for how research might be conducted to facilitate a more systematic understanding of context in emotion science. We summarize these suggestions as a set of four recommendations, which appear in Table 2. Before reviewing these recommendations, we wish to acknowledge again that there is exciting and influential research being carried out that most certainly has 'context in mind.' However, we feel that adopting a more comprehensive framework-based approach will be even more fruitful in establishing a field-wide appreciation of the role of context in emotion processes. In addition, such a framework will help bring previous research together, allowing us to better understand how separate research lines relate to each other, ideally revealing valuable new insights that will guide future research.

First, we recommend that researchers use a framework of the sort outlined here to identify which contextual factor(s) they are examining, and at which level (personal, situational, or cultural) the factor(s) sit (see also Simons, Shoda, & Lindsay, 2017). We advocate undertaking this at both the design and reporting phases of research

TABLE 2 Recommendations for conducting emotion science with context in mind

Recommendation 1	Researchers identify which contextual factor(s) they are examining, and at which level the factor(s) sit, when designing and reporting research.
Recommendation 2	Researchers investigate interactions between contextual factors both within and across levels.
Recommendation 3	Researchers conduct systematic reviews and meta-analyses on the influence of particular factors within and across levels.
Recommendation 4	Editors and reviewers ask researchers to explicitly state in papers the role they believe context plays in their work.

(Recommendation 1). Moreover, we suggest that researchers undertake investigations that purposefully explore interactions between contextual factors both within and across levels (Recommendation 2). The resulting corpus of emotion research will more explicitly consider context, providing the base for systematic reviews and meta-analyses driven by consideration of particular factors *at* a given level, interactions between factors *within* a given level, and/or of interactions between factors *across* levels (Recommendation 3). Rounding out the recommendations, we encourage reviewers and editors to query, where authors have not, the potential role of contextual factors not examined, sending a strong message that such consideration is desired in our science (Recommendation 4).

11 | CONCLUDING THOUGHTS

We are enthused about the direction the field of emotion science is headed in tackling the rich, and often complex, role of context in emotion processes. We believe excellent work is being done to develop theory and methods that can adequately unpack these dynamics, some of which we have highlighted in this paper. However, we also believe that there is more to do, particularly in uncovering cross-level contextual interactions. Further incorporating context into emotion theory and methods is essential, and we suggest the context framework we have proposed provides a useful theoretical structure with which to catalog these efforts. A deeper understanding of context will allow us to take advantage of and build on cutting-edge methodologies, improve the robustness of our science, and advance theory by building context explicitly into our understanding of emotion—how it is elicited, expressed, perceived, and regulated, as well as how it impacts psychological and behavioral outcomes. We have made four recommendations for how this might be achieved.

We believe that context is not ‘noise’ to be washed out or controlled for statistically. Context is, in our view, the very essence of emotion. Context is what gives rise to the diversity and depth of human emotional experience and the myriad thoughts and behaviors that stem from such experience. Until emotion science, and indeed psychological science more generally, arrives at a comprehensive appreciation of contextual influences on psychological processes, progress in understanding those processes will be inherently limited. Recognition of the importance of context in all its diversity and all the levels at which it operates will give rise to novel methodological approaches, powerful psychological theories, and provide the impetus to conduct comprehensive contextually-based research.

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ORCID

Katharine H. Greenaway  <http://orcid.org/0000-0002-0271-5312>

Lisa A. Williams  <http://orcid.org/0000-0002-0021-5613>

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Katharine H. Greenaway is a social psychologist studying social functioning in three main domains: identity processes, emotion regulation, and human agency. In her current work, Katharine explores how emotions shape social connections, focusing on how emotion can be regulated to create social harmony or social distance. She additionally studies how and why social groups improve personal and social functioning, with consequences for individual health and well-being as well as group productivity and communication. Katharine completed her undergraduate and PhD studies at the University of Queensland before working as a Global Research Fellow with the Canadian Institute for Advanced Research. She is currently a Lecturer and ARC Discovery Early Career Fellow based in the Melbourne School of Psychological Sciences at the University of Melbourne.

Elise K. Kalokerinos is a social psychologist using both lab and experience sampling methods to explore emotion regulation and expression. Her current work primarily focuses on how factors like goals, timing, social context, and appraisals can shape which emotion regulation strategies people choose, and whether those strategies are effective in both the short-term and in shaping longer term psychological well-being. She completed both her undergraduate degree and her PhD at the University of Queensland in Australia. She then completed a Marie Skłodowska-Curie postdoctoral fellowship at KU Leuven in Belgium. She is currently a Lecturer and ARC Discovery Early Career Fellow at the University of Newcastle, Australia.

Lisa A. Williams is a social psychologist whose research examines the dynamics between emotional experience and social interaction. Much of her research focuses how positive emotions that arise in the context of social interactions function at the interpersonal, interpersonal, intergroup, and societal levels. Her current research program includes projects investigating the prosocial functions of vicarious pride, compassion, and moral elevation. She is also using cross-sectional, experimental, and experience sampling and longitudinal approaches to examine the impact of emotional experience on blood donation behavior. She currently serves as Associate Editor at *Emotion* and is an elected member of the Society for Experimental Social Psychology. She received her BA in Psychology from Lewis and Clark College and her PhD in Social Psychology from Northeastern University. She is currently Senior Lecturer at the University of New South Wales.

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