ARTICLE

emotion review

Emotion Review
Vol. 16, No. 3 (July 2024) 151–161

ISSN 1754-0739
DOI: 10.1177/17540739241259559
https://journals.sagepub.com/home/emr

Emotion Regulation Versus Mood Regulation

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Abstract

Emotions and moods have been distinguished in the literature. If they are distinct, we may expect emotion regulation and mood regulation to be distinct too. We show that although emotion regulation and mood regulation are considered theoretically distinct, they are often confounded empirically. We review characteristics proposed to distinguish emotions from moods by different theoretical approaches to emotion. We also review challenges to these propositions, suggesting that one valid distinction involves intentionality. Building on the above, we discuss possible differences between emotion regulation and mood regulation. Finally, we encourage the use of accurate terminology, argue for the importance of empirically testing hypotheses regarding distinctions between emotion regulation and mood regulation, and discuss possible implications.

Keywords
emotions, emotion regulation, moods, mood regulation

Feelings are an important part of our lives, and they take on multiple forms, such as emotions and moods. Many consider emotions and moods distinct phenomena (Beedie et al., 2005). However, it is less clear to what extent people clearly distinguish between the processes that involve regulating emotions and moods—namely, emotion regulation and mood regulation, respectively. In this paper, we review how emotion regulation and mood regulation have been addressed in the theoretical and empirical literature, we review the proposed distinctions between emotions and moods to infer whether and how emotion regulation might differ from mood regulation, and we discuss why it is important to address the potential distinction (or lack thereof) between emotion regulation and mood regulation for theories of affect and for facilitating psychological well-being.

The Regulation of Emotions Versus Moods in the Literature

Theoretical References

Affect is considered an umbrella term, encompassing various types of experiences, such as emotions and moods (Frijda & Scherer, 2009; Parkinson et al., 1996; Scherer, 1984). Such affective states involve evaluative feelings (Parkinson et al., 1996) that differ by valence (i.e., degree of pleasantness or unpleasantness) and arousal (i.e., degree of activation; Russell, 1980).

Emotion regulation refers to attempts to regulate emotions, whereas mood regulation refers to attempts to regulate moods (Gross, 2015).

To date, several theoretical models have been proposed, and most of them explicitly target the regulation of either emotions or mood. Perhaps the most widely cited model is the process model of emotion regulation (Gross, 1998b), which was designed to model the regulation of emotions, in particular. The process model of emotion regulation takes the process of emotion itself as its basis, highlighting specific stages where one could potentially intervene to shift the natural trajectory of the emotion. The stages in the model, therefore, include situation selection and modification (targeting the emotion-eliciting situation), attention deployment (targeting attention to the situation), cognitive change (targeting the interpretation of the situation), and response modulation (targeting the emotional response).

The extended process model of emotion regulation (Gross, 2015) builds upon the original process model but

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situates it within a larger context of control, where people go through an identification stage (i.e., recognize the need to regulate), a selection stage (where they choose the appropriate emotion regulation strategy, according to the original process model), an implementation stage (where they implement their chosen regulation strategy), and monitoring (which involves ongoing assessment and evaluation of the effectiveness of the chosen regulation strategy). Other models have also considered emotion regulation from the perspective of action control (e.g., Tamir, 2021; Webb et al., 2012).

Several theoretical models have also been proposed to account for the regulation of mood states. These models are also often based on principles of action control (Carver & Scheier, 1982). For example, Parkinson and colleagues (1996) proposed a model that includes four stages: (1) monitoring—ongoing assessment of a given mood state; (2) appraisal—evaluating the current mood state relative to the desired mood state; (3) regulation—selecting and implementing a mood-regulation strategy; (4) reappraisal—evaluating the success of the regulation attempt and deciding to continue, modify the strategy, select a new strategy, or stop regulating. Like Gross (1998b), this model was explicitly discussed in the context of regulating moods, in particular, distinguishing them from emotions (Parkinson et al., 1996).

Similarly, in Larsen's (2000) model of mood regulation, the regulator has a desired mood state and regularly monitors and compares his current mood state to the desired one. When there is a discrepancy, the regulator engages regulatory processes to reduce the discrepancies (i.e., regulate the current mood state in a negative-feedback loop). Certain personal or environmental causes, such as attention to affect-inducing stimuli, lead to the discrepancies, so any strategy, behavioral or cognitive, that targets these causes to reduce the discrepancies can be considered a mood-regulation strategy. This model, too, was developed to account for the regulation of moods, rather than emotions (Larsen, 2000).

As another example, the dual-process model of mood management (Forgas et al., 1998) specifically targets the regulation of moods rather than emotions (Forgas, 2000). The model explains that one process amplifies the current mood state, and once a threshold level of mood intensity is reached, a second process reduces the current mood state. Resonating with action control models, the dual processes maintain a homeostasis of mood through monitoring and feedback. Other models of mood regulation focused more on motivational concerns, including hedonic (Tice & Bratslavsky, 2000; Wegener & Perry, 1994), and instrumental (Erber & Erber, 2000) concerns. Several frameworks have also been proposed for classifying strategies to regulate moods (e.g., Larsen, 2000; Morris & Reilly, 1987; Parkinson & Totterdell, 1999; Parkinson et al., 1996, Thayer et al., 1994).

Summary. In the theoretical literature, both emotion regulation and mood regulation are typically considered to be motivated processes, and thus share characteristics with more basic models of self-regulation. Though a handful of models consider the regulation of affect more broadly (e.g., Gross et al., 2019; Koole, 2009; Larsen & Prizmic, 2004), in general, separate models have been developed to account for emotion regulation and mood regulation (e.g., Gross, 1998b; Larsen, 2000; Parkinson et al., 1996), highlighting the distinction between these affective states and their regulatory mechanisms.

Given that the prominent theoretical models in the field have distinguished between emotion regulation and mood regulation, it is reasonable to expect the empirical research that relies on these models to do the same. Therefore, we conducted a review of the empirical literature to test whether theoretical distinctions between emotion regulation and mood regulation have been appropriately maintained.

Empirical References

Emotions and moods have both been studied extensively and to a similar extent in the literature. Between 1992 and 2022, there were 2.45 million citations in Google Scholar that included the term "emotion" and 2.43 million citations that included the term "mood" (i.e., 99% of the number of citations on emotions). Given that both emotions and moods have been studied to a similar extent and assuming that emotion regulation and mood regulation are distinct, one might expect to find the extent of research on the regulation of emotions and on the regulation of moods to be similar too. However, between 1992 and 2022, research on "emotion regulation" was almost 18 times more common than research on "mood regulation." As shown in Figure 1, this is reflected by 470,000 citations in Google Scholar that include the key term "emotion regulation," compared to just 26,200 citations that include the key term "mood regulation" (i.e., only 5.6% of the number of citations on emotion regulation) in the same period.

How could it be that papers on emotion regulation have outnumbered papers on mood regulation to such a disproportionate extent over the past decade? We believe that there are several possible explanations. One explanation is that since the early 2000s (until 2022), people have studied emotion regulation and largely neglected mood regulation. However, it is not evidently clear why this should be the case. Moods are theorized to always be present and provide the affective background of our lives, and hence are likely to be more frequent than emotions (Davidson, 1994). In addition, people often want to regulate their moods (Tice & Bratslavsky, 2000). Furthermore, understanding the regulation of moods may be particularly important, given how tightly mood states are linked to psychopathology (Joormann & Siemer, 2014). Major depressive disorder, for

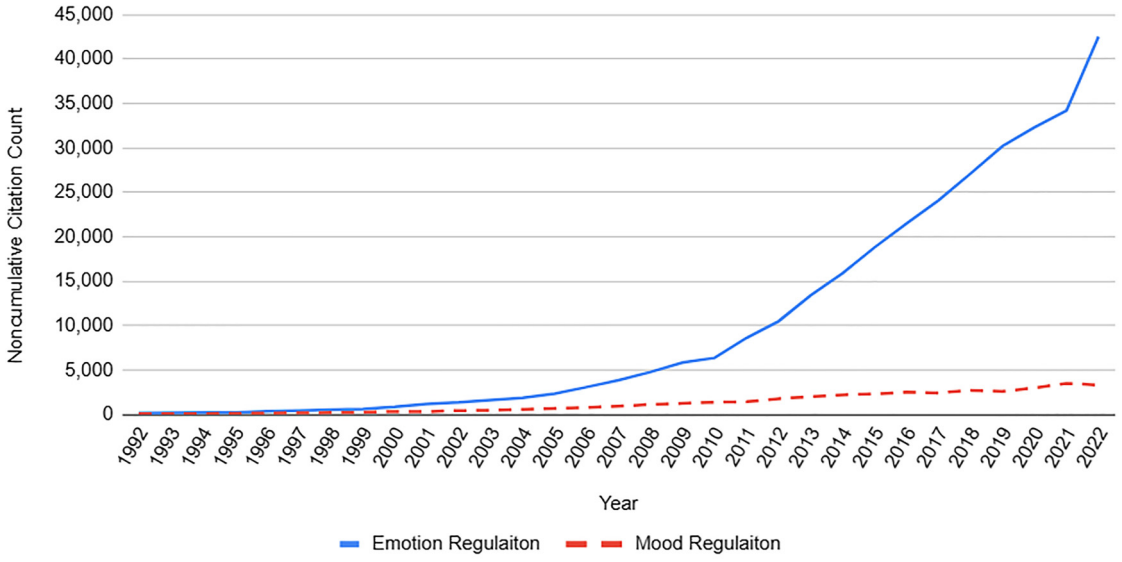

Figure 1. Emotion regulation versus mood regulation citations from 1992 to 2022 (Google Scholar).
Note. Noncumulative citation counts for the search terms "emotion regulation" and "mood regulation" between 1992 and 2022.

instance, is classified as a mood disorder and thus might be due to or maintained by deficits in mood regulation (Parkinson et al., 1996). Hence, if the empirical study of mood regulation has been neglected, this would be surprising and unfortunate.

Another explanation for these findings is that people have not neglected the study of mood regulation. Instead, they have been studying mood regulation, but referring to it as emotion regulation. This would imply that the conceptual distinction between emotion regulation and mood regulation has not been consistently preserved in the empirical literature, pointing to a potential conceptual muddle.

Empirical literature review. To assess whether mood regulation has been neglected or confounded with emotion regulation, we conducted a review of the empirical literature on emotion regulation (see Figure 2 for a summary of the review procedure). We examined whether papers that conceptually targeted emotion regulation indeed assessed the regulation of emotions per se, or instead targeted the regulation of moods or other types of affect. We reviewed a representative sample of the literature. We searched the APA PsycArticles database, and identified all peer-reviewed empirical articles that were published in English between Sep 2017 and Sep 2022 and included the key term "emotion regulation." The search yielded 639 articles.

To examine whether the articles assessed the regulation of emotions per se, we focused on three characteristics that have been commonly assumed to distinguish emotions from moods (i.e., intentionality, duration, and discreteness; Beedie et al., 2005; Parkinson et al., 1996; Watson, 2000; Watson & Clark, 1994). Intentionality is the extent to which the affective state refers to a specific object (Goldie, 2002). Many have considered intentionality as the major characteristic that distinguishes emotions from moods (Frijda, 1994; Parkinson et al., 1996; Siemer, 2009; Watson, 2000). Emotions are assumed to be object-focused —they are about something in particular or directed at a particular person, object, or event (Frijda, 1994; Parkinson et al., 1996; Watson, 2000). By contrast, moods are presumably not about anything in particular, and so they do not involve intentionality (Clore et al., 1994). Alternatively, moods may be directed at multiple objects rather than just one (Siemer, 2009).

Duration refers to the amount of time the state lasts. Emotions are often considered to be shorter than moods (e.g., Ekman, 1994). Some have argued that emotions last just seconds or minutes, whereas moods can last hours, days, or even weeks (Parkinson et al., 1996). Finally, discreteness refers to the specificity of the state. Emotions are often considered to be specific and discrete (e.g., happiness, pride, love, sadness, fear, anger, etc.). By contrast, some have considered moods as being relatively general in nature, varying primarily along a dimension of valence from positive to negative (Watson & Clark, 1994).

In our review, we focused on intentionality, duration, and discreteness, for several reasons. First, these characteristics have been most commonly assumed to distinguish the two affective states. Second, these characteristics are often featured, explicitly or implicitly, in measures of emotions (e.g., Roos & Bennett, 2022), which are likely to be included in empirical research. Third, these characteristics are relatively straightforward to detect and evaluate, and so we expected to be able to identify them in our review of the literature.

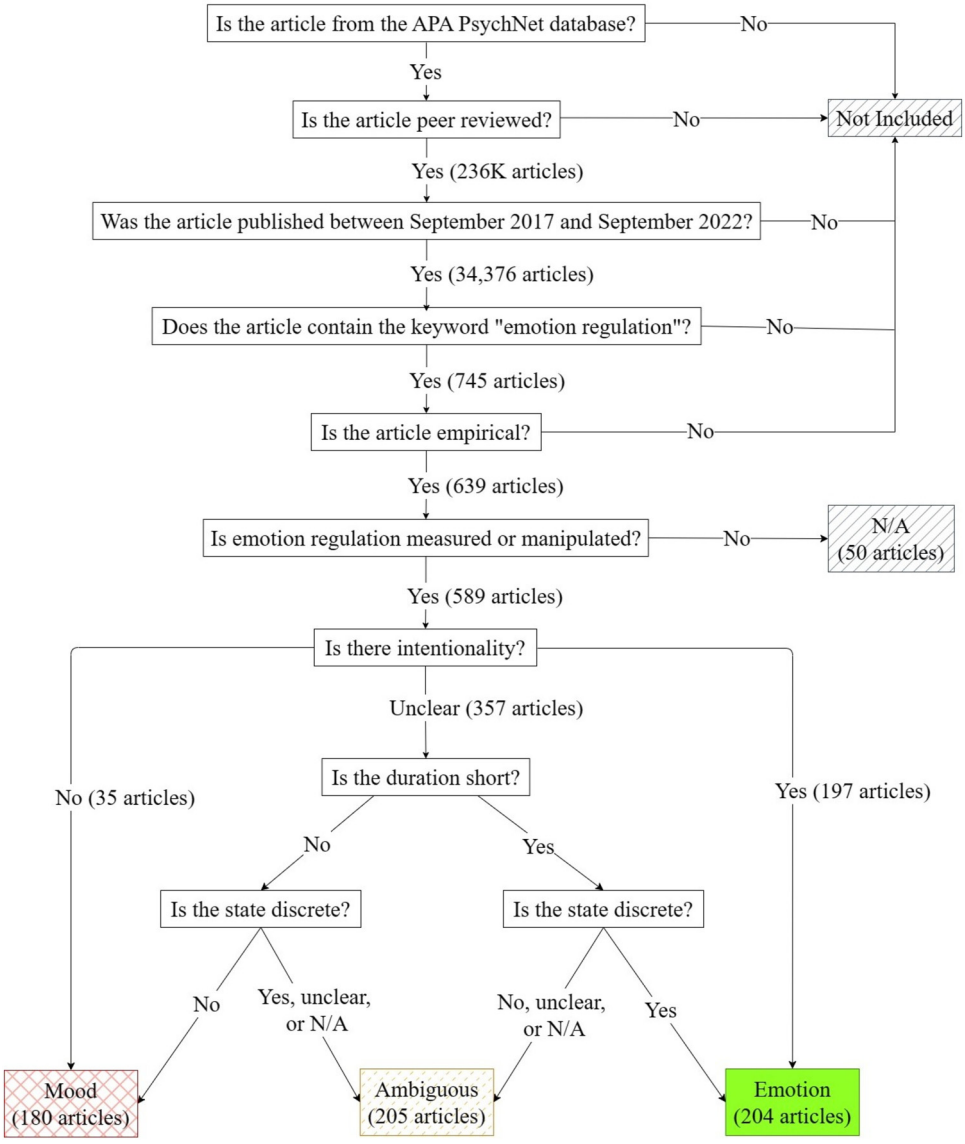

Figure 2. Determining whether publications on emotion regulation (published between 2017 and 2022) targeted emotions or other affective states.

As intentionality is widely theorized to be the major characteristic that distinguishes emotions from moods (Frijda, 1994; Parkinson et al., 1996; Siemer, 2009; Watson, 2000), it was given the most weight in our review. When the affective state was measured after being induced by a stimulus, or when the affective state was measured by a questionnaire or item that referred to the feeling being "about," "toward," or in some way directed at a stimulus, we considered this affective state to be intentional. Intentionality was coded as "yes" when intentionality was identified, "no" when no intentionality was identified (e.g., using music to regulate affect; Garrido et al., 2022), and "unclear" when the evidence was ambiguous (e.g., "When I'm upset, I have difficulty getting work done"; Kaufman et al., 2015).

In those cases where intentionality was coded as "unclear," we relied on duration and discreteness to determine whether the study genuinely targeted emotion regulation rather than mood regulation. As studies often do not measure how long an affective state lasts, we assessed duration by considering the timeframe in which that state could have occurred. For instance, if an affective state was induced and measured within one minute, or if participants reported on a specific event during the past hour or day, as was sometimes the case in some daily diary or EMA studies, we considered the state to have a timeframe of one minute. If the participants rated how they felt over the past day overall, as was sometimes the case in other daily diary or EMA studies, the timeframe for this affective state was assumed to be one day. With respect to discreteness, emotions typically target discrete states (e.g., fear, anger), whereas moods typically refer to more general states (e.g., bad mood, good mood). The discreteness characteristic was

coded as "yes," "no," or "unclear" in the case of a questionnaire that included both discrete and non-discrete items or when discrete emotions were averaged into non-discrete items.

As intentionality held the most weight, if there was clear intentionality, we categorized the target state as an emotion, and if there was a clear lack of intentionality, we categorized it as a mood. If the intentionality was rated "unclear," we based the categorization on duration and discreteness. Because emotions are theorized to last just seconds or minutes, and moods are theorized to last hours or days, we chose a duration threshold of two hours to allow us to distinguish the two kinds of states.[1] If the affective state both lasted under two hours and was discrete, we considered it to be an emotion, but if it was longer than two hours and not discrete, we categorized the state as a mood. If it was longer than two hours but discrete, shorter than two hours but not discrete, the discreteness was unclear, or either duration or discreteness was not mentioned, we categorized the target state as "ambiguous," since there was not enough information to draw a firm conclusion. If there was any intentionality, regardless of the other criteria, the state was categorized as an emotion. If the intentionality was unclear, but the affective state was discrete and short, the state was categorized as an emotion. Thus, the categorization of an affective state as an emotion was quite liberal.

Two independent coders coded the articles. Data and code are publicly available in an OSF repository at https://osf.io/xzfam?view_only=7821912aeb7d4baa888fa5ffee019cfa.
To test for inter-rater reliability, 15% of the total number of articles (90 articles) were coded independently by both coders, and the reliability was good (kappa = .81). In 50 publications, though they included the term "emotion regulation," emotion regulation was not measured nor manipulated. These articles were excluded from the analysis. Of the 589 remaining articles, 204 (34.63%) provided enough information to categorize the target state as an emotion, 180 (30.56%) provided enough information to categorize the target state as mood, and the remaining 205 (34.80%) did not provide enough information to categorize the state as either an emotion or mood. Thus, up to two thirds of the empirical literature that supposedly targeted emotion regulation may not have targeted emotions per se.[2]

Summary. Our analysis of the empirical literature indicates that emotion regulation and mood regulation have often been confounded empirically. Between 2017 and 2022, only one third of the publications that supposedly targeted emotion regulation actually targeted emotions, per se. Furthermore, of the publications that explicitly target emotion regulation, one third appear to have assessed mood regulation instead. This lack of consistency in terminology, both within the empirical literature as well as between the empirical and theoretical literature may prompt us to ask whether emotions and moods are really as distinct as has been assumed and whether the distinguishing criteria between emotions and moods are sufficiently clear. Therefore, it may be useful to revisit the basic distinction between emotions and moods.

The Distinction Between Emotions and Moods

As affective states, both emotions and moods involve a subjective experience that varies in valence and arousal, both reflect and influence evaluations of what is happening, and both are states, not traits (Goldsmith, 1994), such that they have a limited duration (Parkinson et al., 1996). Although they share some features, the extent to which emotions are considered distinct from moods, and the proposed characteristic differences, depend on the conceptualization of emotion. These proposed differences are summarized in Table 1 and discussed in detail below.

Basic emotion approaches recognize different mental states as evolutionarily and biologically distinct from each other (Ekman, 1972, 1999). Different emotions, such as anger and happiness, are distinguished in their signal, physiology, and antecedent events (Ekman, 1992). By this approach, emotions and moods are biologically distinct states, that have distinct identifiable characteristics. According to the basic emotion approach, emotions are associated with acute, autonomic changes (Levenson et al., 1990), whereas moods are associated with chronic, sustained bodily changes related to hormones and the immune system. Emotions are linked to corresponding facial expressions, whereas moods are less visibly expressive (Ekman, 1994). Emotions are shorter and more intense than moods (e.g., Ekman, 1994; Panksepp, 1994). Lastly, emotions have clear triggers or antecedent events, whereas the causes of moods are less salient.

Appraisal approaches emphasize the evaluations of events that give rise to emotions (Lazarus, 1991). As such, these approaches focus less on duration, intensity, and physiological distinctions, and more on the appraisals of the events and subsequent action readiness. According to appraisal theories, specific configurations of appraisals give rise to specific emotions (happiness, sadness, anger; Lazarus, 1991; Parkinson et al., 1996). By contrast, moods do not involve appraisals of specific events but instead are products of looser appraisals of the existential background of our lives (Lazarus, 1994). According to appraisal approaches, emotions are object-focused—they are about something in particular (Frijda, 1994; Parkinson et al., 1996). This renders intentionality a key characteristic that distinguishes emotions from moods. Although intentionality and causality are not the same, emotions are often caused by specific, personally relevant objects (Parkinson et al., 1996; Watson & Clark, 1994), whereas moods, which are not about anything in particular, are typically caused by general conditions, such as energy levels or the weather (Davidson, 1994). Because emotions are about something specific, they can also bias subsequent action toward that

Table 1. Proposed distinctions between emotions and moods based on theoretical approaches to emotion, some challenges to these distinctions, and examples of testable hypotheses concerning regulation.

Theoretical approach	Characteristic	Emotions	Moods	Challenges	Examples of testable hypotheses
Basic emotions	Physiological changes	More likely to involve autonomic changes (e.g., Levenson et al., 1990)	More likely to involve hormonal changes (e.g., Ekman, 1994)	Calm moods are sometimes associated with autonomic changes (e.g., Nieuwenhuyse et al., 1987)	Taking deep breaths, which regulate the autonomic system, will be more effective for regulating emotions than moods
Basic emotions	Visible expression	Linked to visible changes in the face, voice, or posture (e.g., Ekman, 1994; Simon-Thomas et al., 2009; Tracy & Robins, 2004)	Less associated with visible changes in the face, voice, or posture (e.g., Ekman, 1994; Watson & Clark, 1994)	Moods may relate to changes in posture or voice (Naragon-Gainey, 2018)	Inhibiting the visible expression of feelings will be more effective for regulating emotions than moods
Basic emotions	Duration	Short (seconds–minutes; e.g., Ekman, 1994)	Long (hours–days; e.g., Ekman, 1994)	Moods can be short (e.g., music-elicited moods can last a few minutes; Gillies & Dozois, 2021) Emotions can be long (e.g., sadness can last 48 hours; Verduyn & Lavrijsen, 2015)	Strategies that have a delayed effect (e.g., expressive writing; Baikie & Wilhelm, 2005) will be more effective for regulating moods than emotions
Basic emotions	Intensity	High (e.g., Panksepp, 1994)	Moderate–low (e.g., Panksepp, 1994)	Moods can be intense (e.g., clinical depression; Bowen et al., 2017)	Strategies that are more effective for regulating moderate–low, rather than high, intensity affect will be more effective for regulating moods than emotions
Basic emotions	Awareness of trigger	Easily identifiable (Ekman, 1994)	More difficult to identify (Ekman, 1994)	Emotions can be triggered subliminally (Ledoux, 1996)	Strategies that rely on identifying the cause of the affective state (e.g., situation modification) will be more effective for regulating emotions than moods
Appraisal; psychological construction	Intentionality	Intentional; object oriented (Frijda, 1994)	Non-intentional; not object oriented or multi-object oriented (Clore et al., 1994; Siemer, 2009)		Object-focused strategies like cognitive reappraisal will be more effective for regulating emotions than moods
Appraisal	Cause	Specific personally relevant events (Parkinson et al., 1996; Watson & Clark, 1994)	General conditions – energy levels, weather (Davidson, 1994)	Moods may also be caused by localized events (Morris, 2000)	Targeting a specific, localized cause will be more effective for regulating emotions than moods. Eating and sleeping will be more effective for regulating moods than emotions
Appraisal	Discreteness	Involves specific appraisals that lead to discrete emotions (happiness, sadness, anger; Lazarus, 1991; Parkinson et al., 1996)	Does not involve specific appraisals, leading to valenced states (positive–negative; Ekman, 1994; Watson & Clark, 1994)	Moods may be discrete and involve specific appraisals (sad vs. irritable mood; Panksepp, 1994). Both emotions and moods may signal external or internal states (Diener &	Strategies that rely on providing an emotion label (e.g., affect labeling; Torre & Lieberman, 2018) will be more effective for regulating emotions than moods Targeting specific appraisals,

(Continued)

Table 1. (Continued)

Theoretical approach	Characteristic	Emotions	Moods	Challenges	Examples of testable hypotheses
				Suh, 1998; Frijda, 1994; Morris, 2000)	through strategies like cognitive reappraisal, will be more effective for regulating emotions than moods
Appraisal	Consequences	Bias action (Frijda, 1986)	Bias cognition (Clore et al., 1994; Davidson, 1994)	Emotions may also bias cognition and moods may also bias action (Angie et al., 2011; Forgas, 2000)	
Psychological construction	Use of affective concepts	Categorized using emotion terms (Barrett et al., 2014)	Not categorized using emotion terms		Changing the affective concepts used to categorize feelings can regulate both emotions and moods

object (Frijda, 1986; 1994). By contrast, whereas moods are less likely to bias action toward specific objects, they can bias cognition, more generally (Clore et al., 1994; Davidson, 1994; Frijda, 1994).

Psychological construction approaches consider mental states, including emotions and moods, as emerging from a continuous process of meaning-making or construction from more basic ingredients (Barrett, 2009). According to this approach, emotions and moods are not biologically distinct but instead reflect different folk categories. According to constructionist theories, emotions, and moods are both constructed from more basic affective ingredients, such as valence and arousal (i.e., core affect; Russell, 2003). When core affect is object-directed, it is likely to be considered an emotion, and when it is not, it is likely to be considered a mood (Russell, 2003). Similarly, the Conceptual Act Theory (Barrett, 2006, 2012) suggests that emotions, but not moods, are constructed when feelings are categorized with situation-specific, embodied emotion concepts. The same input may be categorized as an emotion or as a mood, depending on whether it is attributed to a specific situation (i.e., is seen as having intentionality) and on the semantic concepts used to categorize it. Construction theories, therefore, highlight intentionality and the use of affective concepts as key distinguishing features.

Different theories offer different conceptualizations of emotion and accordingly highlight different possible characteristics as distinguishing between emotions and moods. From an empirical perspective, however, there have been challenges to assumptions about the necessity of proposed characteristics (see Table 1 for a summary of such challenges). Indeed, although further research is needed to corroborate this claim, intentionality might be the only characteristic that appears to be necessary (Parkinson et al., 1996).

Whether or not they are distinct, emotions and moods are considered closely linked. Moods may trigger emotions (Davidson, 1994; Ekman, 1994; Frijda, 1994; Nowlis & Nowlis, 1956; Russell, 2003; Siemer, 2009). For example, a person in a good mood may perceive a conversation with a friend to be particularly pleasant, making her feel happy about that conversation. Also, emotions may lead to moods, such that when we experience emotions repeatedly or when we are exposed to stimuli of long duration (Frijda, 1994; Russell, 2003), moods may develop as an integrated evaluation (Bennett et al., 2022; Ekman, 1994; Mendl et al., 2010). For example, if someone has many pleasant conversations with friends during the day and experiences multiple instances of happiness, this might lead to a good mood at the end of the day, that is no longer associated with any particular conversation. These bidirectional causal links reveal that emotions and moods may be interchangeable rather than distinct.

Summary. Some theoretical perspectives consider emotions and moods biologically distinct, yet the evidence challenging some of the proposed distinctions and the fluidity with which emotions can change into moods and vice versa are consistent with the possibility that emotions and moods may not differ in their biological or physiological underlying mechanisms. Instead, whether an instance is categorized as an emotion or a mood may depend on whether it is perceived as having intentionality and on the concept used to categorize it. Whether and how emotions differ from moods, in turn, is likely to carry implications for regulation.

The Distinction Between Emotion Regulation and Mood Regulation

If emotions and moods are distinct, biologically or psychologically, the regulation of emotions and moods should

also be distinct. These differences may relate to the characteristics that presumably distinguish between emotions and moods. Hence, different theoretical approaches to emotion may give rise to different hypotheses regarding potential differences between emotion regulation and mood regulation. In Table 1, therefore, we offer possible hypotheses regarding how emotion regulation and mood regulation might differ, based on the characteristics that distinguish emotions from moods, according to these approaches. We do not necessarily endorse these hypotheses. Instead, we offer them as possible examples of potentially testable hypotheses, that could generate new hypotheses and research directions.

According to the basic emotion approach, for instance, emotions are linked to behavioral and expressive responses, whereas moods are not. If so, strategies that modulate such responses should be more relevant and effective in emotion regulation than in mood regulation (for a similar argument, see Gross, 1998b; 2015). As another example, according to the basic emotion approach, emotions are linked to specific patterns of autonomic physiology, whereas moods are linked to hormonal changes. If so, strategies that modulate autonomic physiology (e.g., taking deep breaths) may be more relevant and effective in emotion regulation than in mood regulation.

Both appraisal and constructionist approaches have highlighted intentionality as a key distinguishing factor between emotions and moods. If emotions have objects and moods do not, strategies that modulate how such objects are interpreted should be more relevant and effective in emotion regulation than in mood regulation. For example, cognitive reappraisal is a strategy that involves reframing the meaning of an emotion-eliciting object to alter its emotional impact (Gross, 1998a). By this account, cognitive reappraisal should be more effective in regulating emotions than moods (for similar arguments, see Manstead & Fischer, 2000; Rottenberg & Gross, 2007).

Finally, some constructionist approaches have highlighted the importance of "situated conceptualization" (i.e., categorizing emotions based on conceptual knowledge tied to the given situation) in shaping emotions (and potentially moods). According to such approaches, whether an instance is categorized as an emotion or a mood may depend on the individual's mental lexicon of affective concepts and how it is used to make sense of available input in a given context. If so, strategies that modulate the availability, accessibility, or relevance of concepts should effectively regulate emotions and moods, changing an emotion into another emotion, or emotions into moods, and vice versa (see Barrett et al., 2014). For example, categorizing hunger as anger (e.g., "I'm angry at the slow waiter") may change a mood into an emotion. Alternatively, categorizing anger as hunger (i.e., "I'm hangry") may change an emotion into a mood. By this view, emotion regulation and mood regulation are a function of the concepts used to make meaning of available input.

To our knowledge, hypotheses such as those highlighted above have not yet been tested empirically. Instead, as our theoretical and empirical reviews demonstrate, the field has relied on theoretical models that distinguish emotions from moods, while at the same time overlooking these distinctions empirically. We believe it is time to evaluate the implications of such practices and potentially revise them in ways that would advance the field and promote the study of affect, affect regulation, and emotional well-being.

Implications and Future Directions

Psychological health and adaptive functioning rely on the adaptive regulation of affect, in its diverse manifestations (Joormann & Siemer, 2014; Parkinson et al., 1996; Sheppes et al., 2015). Our affective experience, especially as it relates to mental health, involves both emotions and moods (Gross, 1998b; 2015; Rottenberg & Gross, 2007). Yet, in the past decade, while research on emotion regulation has become increasingly common, research on mood regulation has been relatively rare (18 times less common than research on emotion regulation). We propose that this state of affairs may not reflect a sweeping disregard for the importance of regulating moods. Rather, we argue that it reflects a muddle in the empirical literature between emotion regulation and mood regulation. Indeed, only a third of the empirical papers on emotion regulation unambiguously targeted emotions per se, and another third unambiguously targeted moods instead. This state of affairs carries important implications, leading us to offer several suggestions.

Suggestion 1: Minimize the terminological muddle between emotion regulation and mood regulation. Scientific progress is based on clear conceptual distinctions and terminology. Using correct terminology is not just semantic, it carries implications for how we understand concepts and their related mechanisms. Referring to the regulation of moods and other affective states that are not emotions as "emotion regulation" blurs conceptual distinctions. Furthermore, it steers researchers away from questions about differences or similarities between the regulation of different affective states. Such questions could be informative to both theory and practice. If emotion regulation and mood regulation are distinct, researchers should refer to these concepts in a manner that maps to the state they target in their investigation. Alternatively, if emotion regulation and mood regulation are not distinct, the term "affect regulation" could be used instead to refer to the regulation of affective states, more generally.

Suggestion 2: Identify and test hypotheses regarding potential differences between emotion regulation and mood regulation. To move forward, it is important to understand whether the regulatory processes underlying emotions and moods actually differ and if so, how they differ. To do so, it is necessary to identify clear testable hypotheses and then put them to the test, using valid empirical methods. We

derived some such hypotheses from proposed distinctions between emotions and moods (see rightmost column in Table 1), but other hypotheses can be identified. Given that intentionality has been challenged the least, testing whether strategies that target intentionality are more effective in regulating emotions than moods may be a good starting point for testing possible distinctions between emotion regulation and mood regulation.

To our knowledge, none of the hypotheses listed in Table 1 or related hypotheses regarding possible differences between emotion regulation and mood regulation have been tested to date. If there is empirical evidence for differences between emotion regulation and mood regulation, this would highlight the importance of understanding how and why these forms of regulation differ. Uncovering such differences could lead to theoretical models that highlight distinctions between regulatory mechanisms. It would also help identify the mechanisms that should be recruited to regulate emotions or moods to optimize efficacy and facilitate psychological health. Alternatively, if there is no evidence for distinctions between emotion regulation and mood regulation, this should encourage the development of broader theoretical models that would capture regulatory mechanisms that apply to broader affective phenomena.

Suggestion 3. Revisiting the distinction between emotions and moods. There are likely multiple reasons why emotion regulation and mood regulation are often confounded in the empirical literature. It may be that researchers who study the regulation of affective states fail to consider the potential distinctions between emotions and moods (or lack thereof). It may also be that emotion regulation and mood regulation have been confounded in the literature, in part, because they are not actually distinct. We encourage researchers who study affect regulation, to revisit their assumptions about the potential distinction between emotions and moods, and ensure their research is consistent with these assumptions. Perhaps studying emotion regulation versus mood regulation may also inform our understanding of affective states, more generally.

Conclusions

Emotion regulation and mood regulation are assumed to be distinct processes in the theoretical literature but are confounded in the empirical literature. We examined the characteristics that have been proposed to distinguish emotions from moods, according to different theoretical approaches to emotion, considered some challenges to these propositions, and inferred examples of hypotheses that could be tested. We encourage the field to use appropriate and precise terminology and to empirically test possible distinctions between emotion regulation and mood regulation as well as distinctions between emotions and moods. Such research could inform theories and interventions targeting the regulation of feeling states, as well as theories of affect, more broadly.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research was supported by the Artery Chair in Personality Studies Endowed by Goldberg, Geller, and Luria to Maya Tamir. We would like to thank Sinyu Kim for his help with the literature review, Danfei Hu for her comments on an earlier draft, and Brian Parkinson and two anonymous reviewers for their help during the review process.

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Notes

1. Our conclusions did not change even when we extended this timeframe to 24 or 48 hours.
2. We completed a similar process for articles targeting "mood regulation." We searched the APA PsycArticles database, and identified all peer-reviewed empirical articles that were published in English between September 2017 and September 2022 and included the key term "mood regulation." The search resulted in just 17 articles, 16 of which were empirical, and only 10 of which included a measure or manipulation of "mood regulation." Of these 10 articles, six were judged as targeting emotion, three were judged as targeting mood, and one was ambiguous.

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