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Mind the Gap? Emotion Regulation Ability and Achievement in Psychological Disorders

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Abstract
Why do so many people fail to manage their emotions successfully even though they can do so? This review begins by noting a surprising gap between emotion regulation ability and achievement apparent across individuals with emotional disorders, many of whom appear to be able to effectively regulate emotions when cued. Recently, clinical science has begun to take stock of this puzzling gap between intact emotion regulation ability and challenges with emotion regulation achievement. We refer to this as the 'emotion regulation ability-achievement' (or ER-AA) gap, and discuss clinical implications, including alternative approaches to closing this gap.

Keywords emotion, emotion regulation, emotion dysregulation, psychopathology, ability, capacity, achievement, performance

Troubles with emotion regulation are present across a broad range of psychiatric disorders (Gruber, 2011; Kring, 2010; Mennin, Heimberg, Turk, & Fresco, 2005; Sheppes, Suri, & Gross, 2015; Yoon & Rottenberg, 2020). At the same time, mounting evidence suggests that many individuals with psychiatric disorders have an intact ability to regulate when cued or instructed how and/or when to regulate their emotions (Ehring, Tuschen-Caffier, Schnülle, Fischer, & Gross, 2010; Gruber, Harvey, & Johnson, 2009; Ziv, Goldin, Jazairi, Hahn, & Gross, 2013; Gross & Jazairi, 2014).

Why might some people fail to regulate their emotions despite having the ability to do so? This puzzling question highlights a gap between emotion regulation *ability* and emotion regulation *achievement*. In this paper, we refer to emotion regulation ability (or *ER-Ability*) as the ability to regulate or manage emotions under optimal circumstances. This can be distinguished from emotion regulation achievement (or *ER-Achievement*) which encompasses how individuals manage their emotions in everyday life even when circumstances are not ideal; importantly, determining successful emotion regulation achievement is often anchored to the context and goals of the individual in that context. We briefly review evidence differentiating ER-Ability from ER-Achievement outcomes in a key sample of psychiatric disorders to illustrate their importance and puzzling gap between them for many individuals with lived histories of emotional disorders. We refer to this puzzling discrepancy as the Emotion Regulation Ability Achievement (ER-AA) gap. We briefly describe this puzzling gap, consider how it might arise, and say how this gap might be narrowed to increase well-being.

Emotion Regulation and Psychopathology

Emotion regulation (ER) refers to the automatic or controlled processes by which an individual consciously or unconsciously modifies his or her emotions (e.g., Gross, 1998; 2015). There is a high prevalence of ER disturbances across clinical disorders (Berenbaum, Raghavan, Le, Vernon, & Gomez, 2003; Gross, Uusberg, & Uusberg, 2019; Kring, 2010;

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Sheppes et al, 2015), including not engaging in ER when it would be helpful to do so and using strategies that do not match the context.

A common "go-to" perspective in ER and clinical science literatures is to assume that ER disturbances arise because individuals have a deficit in the ability to effectively regulate emotions.[1] With respect to ER-ability, proponents of this perspective typically have in mind adequate access to psychological resources to use in the service of regulating emotions (Mischel, 1974), where resources refers to possessing the required cognitive and behavioral skillsets (Gross & Thompson, 2007) and intact functional neural structures and networks required for successful ER (Davidson, Putnam, & Larson, 2000; Ochsner & Gross, 2008). Many forms of psychopathology are conceptualized as disorders involving the *inability* to regulate emotions, resulting in functional impairment and reduced life quality (Gross et al., 2019).

Consider two quite distinct clinical disorders in terms of prevalence, chronicity, and severity: social anxiety disorder (SAD) and bipolar disorder (BD). SAD is characterized by an intense fear of social situations and evaluations by others, which results in dysfunctional cognitive and behavioral patterns (Rapee & Heimberg, 1997) and negative self-beliefs (Moscovitch, Orr, Rowa, Reimer, & Antony, 2009). People with SAD exhibit maladaptive (i.e., not conducive to promoting an individual's optimal emotion-regulation goals or incurring significant distress or impairment) ER patterns in everyday life and SAD has been conceptualized as a disorder of heightened negative emotion and maladaptive ER strategies at the trait-level and in everyday life (Blalock, Kashdan, & Farmer, 2016), especially in socially threatening contexts (Kashdan & Steger, 2006).

By contrast, BD is a severe and chronic emotional disorder associated with difficulties managing positive and, sometimes also, negative emotions (Gruber, Eidelman, & Harvey, 2008). Heightened emotion intensity is evident for positive and negative emotions among those with BD diagnoses in everyday life using experience-sampling approaches (Gruber et al., 2013). Experimental studies in BD demonstrate heightened emotional responding to positive, or rewarding, emotional stimuli (Johnson, 2005), difficulties down-regulating the intensity of positive emotions (Farmer et al., 2006), and using a wide variety of ER strategies, often simultaneously, and in many studies they not well matched to the context (Gruber, Harvey, & Gross, 2012; Villanueva, Swerdlow, & Gruber, in press). Such evidence might indeed suggest deficits in ER-Ability across both disorders.

However, recent work is challenging this common view, leading us to probe deeper into why ER difficulties occur. Indeed, growing evidence suggests an intact ability to regulate emotions in many individuals with psychopathology. Consider the same two clinical disorders discussed earlier: SAD and BD.

Recent work demonstrates that people with SAD are often able to effectively down-regulate negative emotional experience and physiological responses when cued. For example, Goldin and Gross (2010) demonstrated that instructed engagement in a breath-focused attention task was associated with decreased negative emotion experience and reduced amygdala activation among individuals with SAD. Furthermore, work by Goldin et al. (2012) reported that adults with SAD who were cued to follow mindfulness-based stress reduction regulation techniques demonstrated the ability to learn and implement these instructions when cued which was associated with reductions in negative self-reviews and increases in positive self-reviews.

Research also suggests that those with BD demonstrate an intact capacity to regulate when given overt cues (e.g., Ajaya et al., 2016). For example, BD individuals demonstrate reductions in positive affect and physiological arousal following cognitive reappraisal instructions to emotion-eliciting films (Gruber, Hay, & Gross, 2014) and in response to mindfulness-based techniques to experimental rumination inductions (Gilbert & Gruber, 2014).

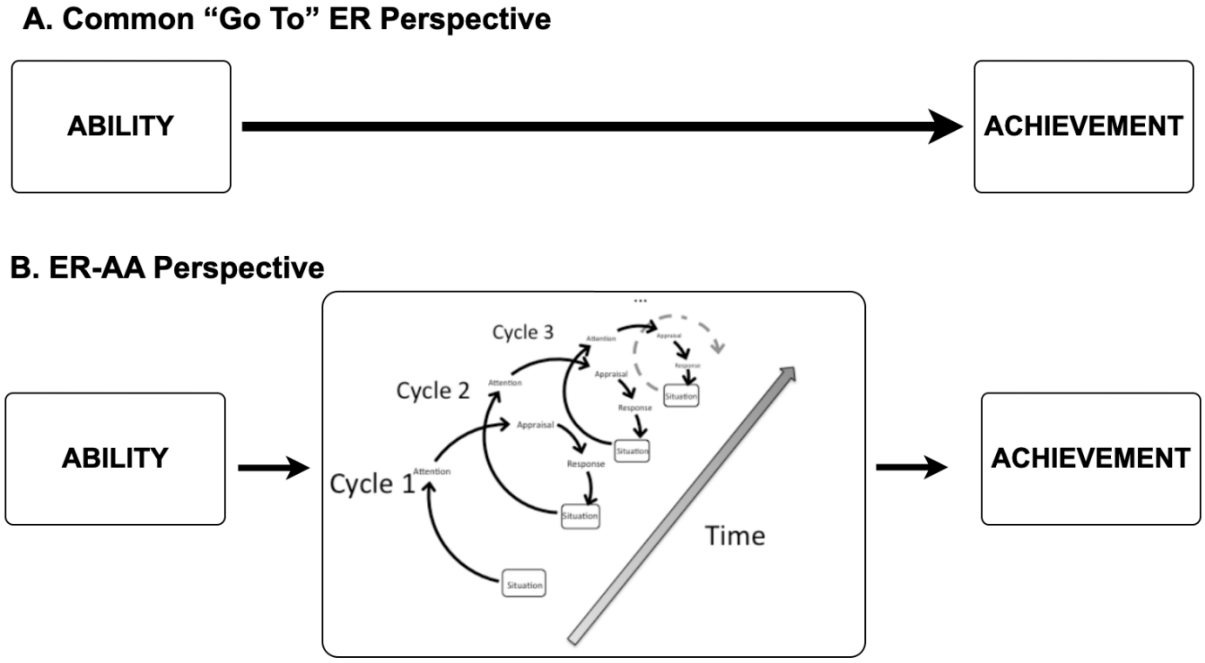
Intact ER-Ability appears to be evident across other disorders, such as major depressive disorder (Ehring et al., 2010; Rottenberg & Gross, 2003) substance use disorders (Kober, 2014), borderline personality disorder (Gratz, Rosenthal, Tull, Lejuez, & Gunderson, 2006), and schizophrenia (Cohen & Minor, 2010; Kring, 2010; Opoka, Sundag, Riehle, & Lincoln, 2021).

Taken together, mounting evidence suggests that the ability to regulate emotions may be largely intact in some individuals with psychopathology. How can we explain this puzzling gap in these cases between difficulties with ER in everyday life and a seemingly intact ability to regulate emotions?

Why is There an Emotion Regulation Ability Achievement Gap?

We suggest that the gap between seemingly intact ER-Ability, or the ability to regulate emotions under optimal conditions, and ER-Achievement, or how individuals actually manage their emotions in everyday life in a way that achieves an optimally advantageous outcome in a given context (Aldao, 2013; Bonanno,

Figure 1. Emotion Regulation Go-To Perspective (A) and Emotion Regulation Ability Achievement (ER-AA) Perspective (B).



Note. The ER-AA perspective introduced in this commentary highlights cases where the ability to regulate is intact, but optimal ER is not achieved, and considers different intermediary or entry points (Gross, 2015) that contribute to ER-Achievement failure.

Papa, Lalande, Westphal, & Coifman, 2004)[2] may be usefully analyzed from several angles.

First, we argue that the ability to regulate one's emotions is a necessary, but not sufficient, condition for successful regulation achievement. A failure in ER-Ability necessarily entails failure in ER-Achievement, but a failure in ER-Achievement does not necessarily entail a failure in ER-Ability. The notion that ability does not necessarily produce successful performance has been discussed in previous literatures on academic performance (Dweck, 1986) where a large discrepancy between these two constructs is an important criterion for detecting and diagnosing learning disabilities (Swanson & Hoskyn, 1998). Earlier clinical science models also highlighted the importance of considering intact abilities in mood regulation (e.g., Beck, 1979).

Second, we draw upon the Extended Process Model (Gross, 2015) to highlight the idea that the path between intact ER-Ability and implementing successful ER-Achievement outcomes involves several intermediary steps. This includes identification or awareness of the need to regulate emotions, selection or choosing among different regulatory strategies, alignment of strategies with one's emotion regulation goals (e.g., Millgram, Huppert & Tamir, 2020), implementation of a chosen regulatory strategy, and monitoring the implemented emotion regulation strategy over time (e.g., Gross, 2015; Sheppes et al., 2015)[3]. As such, it is not a straight shot between ER-Ability and ER-Achievement potentially implied by previous perspectives (Figure 1A) but involves several critical and temporally preceding processes in between (Figure 1B). Although these key stages are certainly not exhaustive nor can they explain away all instances of ER difficulties (e.g., Lewis, Zinbarg, & Durbin, 2010), this model provides a framework for examining factors that may help explain this discrepancy, leading to a far more nuanced understanding of where difficulties with ER may arise.

Third, we note that emotion-related difficulties – or emotions that interfere with the individual's daily functioning or goals or cause the individual significant distress – themselves do not imply difficulties with ER in psychopathology (e.g., Gross & Jazaieri, 2014). For example, an individual may experience difficulties with emotion intensity (too large or too small an emotion response), emotion duration (too short or too long of an emotion response in each context), frequency (experience emotions too frequently or infrequently) or type (an inappropriate emotion in a given context), among other things. Such *emotion difficulties* may arise either from differences in emotion generation or differences in emotion regulation (which, to over-simplify, revolve around

difficulties in the "gas" or the "brakes"). In the present, we focus specifically on ER difficulties, and the puzzling gap between those abilities and implementation when managing everyday intense or challenging emotions.

Where Should We Go Next?

Many if not most clinicians and researchers appear to be working under the assumption that individuals with mental disorders have impairments in emotion regulation (Gross, in press). We know this because this has been our assumption for years. However, mounting evidence is calling this assumption into question. Given how important it is to strategically direct resources to where they will have their maximal benefit (either in terms of understanding basic processes or in translational work that leads directly to improvements in clinical assessment and treatment), several future directions suggest themselves.

First, it will be important to more completely understand where ER-AA difficulties arise for each person. The goal of this commentary is to provide an initial account of the ER-AA gap. We believe that future work is needed to explain *why* challenges in ER-Achievement occur despite the growing data briefly reviewed here showing the very same individuals often have intact ER-ability. We believe that a critical next step will be elucidating the psychological and neural mechanisms responsible for the ER-AA gap, including a specification of neural systems (e.g., prefrontal activations and networks) that give rise to successful cognitive and behavioral control of emotion. The multiple and interacting relationships among distinct neural systems involved in emotion generation, regulation, and incentive motivation to govern adaptive behavior and successful ER will likely yield opportunities for understanding the ER-AA gap in new and fundamentally important directions.

Second, it will be critical to apply this emerging understanding of the ER-AA gap to deepening and/or developing psychological interventions devoted to alleviating emotional difficulties. And indeed, a host of empirically-supported treatments have been explicitly developed to target difficulties with emotion regulation (e.g., Farchione et al., 2012; Greenberg, 2015; Linehan, Heard, & Armstrong, 1993; Mennin & Fresco, in press; Segal, Williams, & Teasdale, 2002). A critical next step here will be to develop a more differentiated map of the specific ER processes that are being targeted for change, and to carefully consider how these targets vary as a function of clinical differences that fall along a continuum (e.g., Insel et al., 2010). For example, one important component of decreasing the ER-AA gap is the effective selection and implementation of context-appropriate regulation strategies (Aldao, 2013; Bonanno & Burton, 2013). Given recent findings that strategies can be differentially effective based on external contextual factors as well as internal factors (i.e., emotional intensity; Sheppes, Scheibe, Suri, & Gross, 2011), it will be important for interventions that train regulatory strategy usage to continue to examine the therapeutic efficacy of the skills being offered in different contexts to address this context specificity. It will also be important to strengthen interventions that not only translate existing capacity into performance, but to focus on targeted interventions that focus on building and maximizing one's potential ER strengths as opposed to treating and eliminating a deficit in ER in the individual. This is inspired by models of treatment for learning disabilities that emphasize building skillsets to maximize potential rather than identifying and changing a deficit. Future work should seek to conduct systematic reviews and meta-analytic reviews to determine the most effective components of extant interventions that may successfully target emotion regulation challenges and increase precision towards developing more personalized and targeted treatments for emotional disorders. We believe this ultimately will aid in the de-stigmatization of ER difficulties seen not as inherent flaws but as opportunities to maximize already present psychological strengths.

Emotions can be misregulated for a variety of reasons depending on context, individual difference factors, and underling beliefs and motivations (Gross & Jazaieri, 2014). Clearly, greater clarity will be needed to fully understand the puzzling ER-AA gap, and to uncover additional stages not delineated here during which the ability to regulate emotions is not being properly translated into successful emotion regulation. In our view, the good news here is that many individuals who were previously thought to be incapable of regulating their emotions may in fact can do so. The puzzle is how to best unlock this ability. Our hope is that this commentary will direct attention to this compelling problem, and spur research and clinical efforts aimed at helping individuals who have emotion regulation difficulties both to increase their emotion regulation abilities, and to enhance their success at translating whatever emotion regulation ability they may have into actual achievement.

Footnotes

[1]We note that ER-Ability is not a fixed process that remains static throughout the lifespan but can be enhanced or decreased over time (e.g., Gross & Thompson, 2007).

[2]Importantly, successful ER-Achievement may not always map onto an individual's original or desired ER goals, such as in instances where a person may possess

maladaptive ER goals for their emotions that are not likely to lead to optimal outcomes (e.g., wanting to reduce fear by avoiding interacting with others in SAD).

[3]ER-Achievement is agnostic for which specific strategies are used (e.g., reappraisal versus distraction) or the timing in the emotion generative process in which ER occurs (e.g., antecedent-focused versus response-focused).

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