Behaviour Change (2018), **35**, 203–216
doi:10.1017/bec.2018.19

CAMBRIDGE UNIVERSITY PRESS

STANDARD PAPER

Interpersonal Emotion Regulation: A Review of Social and Developmental Components

Abigail L. Barthel[1], Aleena Hay[1], Stacey N. Doan[2] and Stefan G. Hofmann[1]*

[1]Boston University Department of Psychological and Brain Sciences, Boston, Massachusetts, USA and [2]Department of Psychology, Claremont McKenna College, Claremont, California, USA
*Corresponding author: Stefan G. Hofmann, Boston University Department of Psychological and Brain Sciences, 900 Commonwealth Avenue, Boston, MA 02215, USA. Email: shofmann@bu.edu

(Received 4 September 2018; accepted 20 September 2018)

Abstract

A staple theme in clinical psychology, emotion regulation, or the ability to manage one's emotions, is directly linked with personal wellbeing and the ability to effectively navigate the social world. Until recently, this concept has been limited to a focus on intrapersonal processes, such as suppression. Less emphasis has been placed on developmental, social, and cultural aspects of emotion regulation. We argue here that as social beings, our engagement in emotion regulation may often occur interpersonally, with trusted others helping us to regulate our emotions. This review will highlight recent research on interpersonal emotion regulation processes.

Keywords: emotion; emotion regulation; social processes; interpersonal interaction; anxiety; depression; mood; psychotherapy

Traditionally, emotion regulation is defined as the process by which people influence which emotions they have, when they have them, and how they experience and express these emotions (e.g., Gross, 1998). This conceptualisation heavily emphasises the *intra*personal or individual aspects of emotion regulation. However, newer models of emotion regulation argue that emotions are rarely, if ever, experienced in a social vacuum (Beckes & Coan, 2011; Hofmann, 2014; Zaki & Williams, 2013). Humans are social creatures and they experience, express, and regulate emotions with others and through others (Beckes & Coan, 2011; Coan & Maresh, 2013; Hofmann, 2014; Zaki & Williams, 2013). As such, researchers have recently designated a second subtype of emotion regulation called *inter*personal emotion regulation, which emphasises these social components and their undeniable influence on how one is able to manage emotions directly or indirectly. Recent models argue that one's environment influences his or her ability to regulate emotions without the acceptance or decision of the person, and that it is more efficient and common for people to regulate their emotions with the help and support of others (Beckes & Coan, 2011; Coan & Maresh, 2013; Hofmann, 2014; Zaki & Williams, 2013). The occurrence of interpersonal emotion regulation is supported by theoretical models, developmental research, lifespan approaches, social networks, and general research on relationships and human interaction. In addition, current research evidences the positive outcomes of successfully using interpersonal emotion regulation, the negative outcomes of interpersonal *dys*regulation, and the effects of psychopathology on interpersonal functioning and emotional management.

This review article will explore the following areas of interpersonal and social models of emotion regulation: (1) emotion regulation and its models and strategies, (2) the social nature and process of emotion regulation across development, (3) positive outcomes associated with interpersonal emotion regulation, and (4) negative consequences of interpersonal emotional *dys*regulation and implications for psychopathology.

© The Author(s) 2018

https://doi.org/10.1017/bec.2018.19 Published online by Cambridge University Press

Contemporary Views on Emotion Regulation

The Traditional Perspective of Emotion Regulation

Emotion regulation research traditionally examines the ways in which people control and manage their emotions on their own by determining *what* emotions they experience, the *degree* to which they experience them, and *when* these emotions come into play (Gross, 1998). One of the most influential intrapersonal emotion regulation models, Gross's process model of emotion regulation, consists of five components: (1) situation selection, (2) situation modification, (3) attention to the situation, (4) modification of thoughts and cognitions, and (5) response modulation (Gross, 1998). First, a person is presented with an emotional situation that he or she can modify according to its degree of emotional effect (step 2). Next, the person attends to or focuses on a certain part of the situation (step 3). Step 4 is achieved when a person decides how to interpret or assign meaning to the particular event. Following this is the person's actual response to the situation (step 5). Gross refers to the first four steps as being 'antecedent-focused emotion regulation' (regulation before action), while step 5 is considered a form of 'response-focused emotion regulation' (regulation based on one's response; Gross, 1998). A key component of Gross's model is one's conscious decision towards experiencing, attending, and responding to a specific situation with emotion. In other words, the situation or the environmental components themselves are not theorised to influence the person other than to provide him or her with a situation in which to react to. This distinction will become important later when distinguishing between *intra-* and *inter*personal emotion regulation.

Well-researched strategies of emotion regulation, typically in association with Gross's model, are: reappraisal, suppression, acceptance, rumination, avoidance, and problem solving (Aldao & Nolen-Hoeksema, 2010; Hofmann, Heering, Sawyer, & Asnaani, 2009). Reappraisal is defined as a reframing of a situation to perceive it as non-threatening. Acceptance refers to one's ability to refrain from changing the circumstance by viewing the situation from a perspective of non-judgment. Problem-solving strategies include brainstorming and planning in order to change or control a situation (Aldao, Nolen-Hoeksema, & Schweizer, 2010). These three emotion-regulation techniques are generally associated with positive outcomes and decreased distress in the event of psychopathology if employed appropriately or when trained in the context of cognitive behavioural therapies (Hofmann et al., 2009). On the other hand, suppression, rumination, and avoidance tendencies can contribute to or maintain mental disorders such as anxiety and depression (e.g., Dennis, 2007; Hofmann, 2014; Hofmann et al., 2009; Nolen-Hoeksema, 2000). Suppression regulates emotions by blocking out the unpleasant emotions or situations, which has been shown to activate the stress response system (Wegner, Broome, & Blumberg, 1997; Wegner & Gold, 1995). Rumination refers to the continual churning of thoughts in the mind over and over again without coming to or engaging in a corrective action or plan. Avoidance, whether active or passive, has the power to regulate emotion by completely getting rid of the situation or by enduring it in the presence of safety behaviours or distress-minimising factors. Aldao and Nolen-Hoeksema (2010) conclude that rumination, suppression, and avoidance are more strongly connected to symptoms of eating disorders, depression, and anxiety than other emotion-regulation strategies.

Newer models of emotion regulation have recently emerged that broaden the emotion-regulation literature. Traditional approaches to emotion regulation have provided abundant amounts of empirical support for *intra*personal emotional processes that depend on the individual's actions to take steps to self-regulate, while neglecting sociocultural influences that have empirical support in the developmental literature. In contrast to intrapersonal regulation, *inter*personal emotion regulation refers to the emotion management of self and others within the context of social and environmental realms. Several researchers have provided seminal models of interpersonal emotion regulation, but most notable are the models of Beckes and Coan (2011), Hofmann (2014), and Zaki and Williams (2013). Whether defined as social emotion regulation or interpersonal emotion regulation, these nuanced conceptualisations have laid the groundwork for research into the social regulatory process of emotional control.

https://doi.org/10.1017/bec.2018.19 Published online by Cambridge University Press

An Interpersonal Perspective on Emotion Regulation

Zaki and Williams (2013) introduced an *inter*personal model that addressed the main limitation of Gross's work: a lack of exploration into the social processes of emotion regulation. Zaki and Williams created their model on the basis of response dependence or independence, similar to Gross, but included social processes by distinguishing between intrinsic and extrinsic forms of interpersonal regulation. These concepts are best narrated by example. Imagine Ben and Lisa, a married couple. Both actors are capable of regulating their own emotions individually, but Zaki and Williams propose that they are also able to co-regulate with one another too. If Lisa is able to regulate her emotions by seeking the presence of Ben, she would exemplify *intrinsic interpersonal emotion regulation*. Lisa may want Ben to accompany her throughout her day to achieve her internal level of comfort, which would be *response-dependent*. If Lisa is content simply knowing that Ben is always on her side, this would be a *response-independent* process. That is, Lisa is the one regulating her emotion (intrinsic), but the level of response from her husband, whether active or passive in support, refers to the dependence or independence.

By similar accounts, if Lisa is distressed and Ben responds by putting his arm around her, thinking 'she is upset and I want to help', this would constitute an *extrinsic* process because she seeks regulation by asking her partner and he provides it via a direct response. However, Ben may also help Lisa regulate her emotions without explicit knowledge, by showing daily support as part of a healthy marriage, which would be an indirect form of extrinsic regulation. By these descriptions, one can see that the fundamental components of interpersonal emotion regulation are its social nature and the idea that one's social environment can regulate the actor with or without his or her consent (for further exploration of this process see Hofmann & Doan, 2018). It is ultimately Ben's decision as to whether he will provide emotion-regulation support to Lisa, regardless of her desires. Lisa has the ability to ask Ben for help or to seek him out in other indirect ways for her own intrinsic comfort. To exclude this co-regulatory relationship would be to assume that one's innate social and communicative tendencies somehow halt when it comes to emotion regulation, which is ultimately false.

In further support of the Zaki and Williams (2013) model, the authors recently developed a questionnaire measuring interpersonal emotion-regulation skills (Williams, Morelli, Ong, & Zaki, 2018). Williams and colleagues (2018) tested peoples' tendencies for using interpersonal emotion-regulation strategies as well as the perceived efficacy of the chosen strategies. Results of multiple studies revealed that people who typically use interpersonal strategies with high efficacy are 'emotionally expressive, empathetic, and socially connected' (Williams et al., 2018). Additionally, the authors found that when emotion was elicited experimentally, a strong tendency for engaging in interpersonal emotion regulation was associated with seeking out others in response to emotion, while high efficacy was associated with increased impact of social support after a real-world emotional event. Furthermore, results suggested that efficacy and affinity for interpersonal strategy use was associated with better social relationship formation in college. These new study findings provide empirical support for the validity of the interpersonal model of emotion regulation.

The Social Neuroscience of Emotion Regulation

Coan's social baseline theory (SBT) posits that the human brain acts under the assumption that it is in a social environment. That is, proximity to others or groups is the expected or baseline environment for humans. This assumption provides a rationale for why humans experience fewer negative outcomes when embedded in a social group as opposed to when they are excluded or in isolation (Beckes & Coan, 2011; Coan & Maresh, 2013). In support of the undeniable social nature of emotion regulation, it has been shown that the brain's dorsolateral prefrontal cortex (dlPFC), which is important for self-management of emotions, is less active when an individual is around others who provide appropriate support. These findings support Coan's SBT, as the brain has to exert less attentional and activational resources to regulate emotion when around others because this environment is closer to its baseline (Beckes & Coan, 2011; Coan & Maresh, 2013; for a review of neurobiological correlates, see

https://doi.org/10.1017/bec.2018.19 Published online by Cambridge University Press

Ochsner & Gross, 2008). The authors argue that humans are less vigilant among social groups than when they are in isolation. Indeed, people often feel more comfortable walking home in the dark at night with friends as opposed to when they are alone. The regulation of fear in this situation is dampened by the presence of trusted others. Thus, Coan and colleagues argue that the employment of social emotion regulation is not only beneficial, but more effective and efficient because the brain is using less energy to regulate its emotions. Beckes, Coan, and Hasselmo (2012) further argue that humans learn in social environments because the brain itself monitors the availability of social resources while learning to understand itself better in relation to those resources.

Moreover, the SBT can be broken down into the following components: (1) risk distribution, (2) load sharing, and (3) capitalisation (Coan & Maresh, 2013). Risk distribution refers to risk seeming lower when one is with others. Coan and Maresh (2013) argue that group risk decreases individual vigilance, which is a form of negative affect. Load sharing refers to the availability of information about a situation and suggests that being part of a group creates easier access to such resources. Also, load sharing includes the knowledge that the individual is capable of helping himself, but his friend or group member is available to help too. The third important component to Coan's theory of social regulation is that of capitalisation of positive emotions or sharing positive emotions when in the presence of others. Indeed, evidence suggests that capitalising between people actually produces positive effects over and above the effects of the actual event itself (Gable, Reis, Impett, & Asher, 2004; Langston, 1994). Additionally, Coan's classic studies of physical proximity with friends in the context of stress show that cortisol levels and negative affect drop when holding a friend's hand, which highlights the power of social emotion regulation (Coan, Beckes, & Allen, 2013; Coan, Schaefer, & Davidson, 2006).

In sum, these models and empirical findings emphasise the undeniable social nature of emotion regulation that appears to be beneficial and distinct from the intrapersonal processes outlined in Gross's model. Despite the lack of research on interpersonal processes in the emotion-regulation literature until recently, there is ample evidence in other areas of psychological research that strongly supports the role of social interaction and development on emotional management.

The Social Context of Interpersonal Emotion Regulation

The Role of the Self

Hofmann and Doan (2018) highlight the importance of development and temporal dynamics in social emotion regulation. They assert that we are born with a 'core self' that first exists in disconnection from the environment. In early stages of life, awareness of our relation to the world are few and far between, and it is our development and social interactions through time that eventually blurs the lines between the self and its surroundings (Hofmann & Doan, 2018). The authors argue that with time we develop a 'social self', beginning in toddlerhood when communication skills develop. As one's social self grows and becomes more developed, one's core self becomes enmeshed into the social self as we become further adapted to our social environments. Furthermore, as one's social self develops, one's emotions are no longer dependent only on the core self, but rather become engulfed and dependent on the social self's experiences. This theory of the core and social selves provides a powerful framework from which to explore a lifespan approach to interpersonal emotion regulation.

Another component of emotional and social development is that of one's awareness or perception of oneself and one's environment. LeDoux and Brown's (2017) higher-order theory of emotional consciousness asserts that awareness, consciousness, and the self are all crucial pieces to human emotional development. In this theory, there exists a state and a higher-order representation of that state. In the context of individuals and emotions, an emotion or a person can be in a state. It is often said that general consciousness is not a direct experience, but rather an experience or perception of an experience. In this case, an emotional state *and* a higher-order representation of that state or awareness is needed to consciously experience the state or emotion. In the context of cortical and subcortical circuits, the cortical ones are responsible for higher order perceptions and conscious experiencing of

https://doi.org/10.1017/bec.2018.19 Published online by Cambridge University Press

lower order subcortical experiences of emotional stimuli that may invoke fear, panic, or happiness (Hofmann & Doan, 2018; Ledoux & Brown, 2017). In relation to the self and one's awareness, you can experience an emotion or state and be included in one as information, which allows us to have 'emotions about emotions' or 'thoughts about our thoughts' (i.e., meta-cognitions). An example highlighted by Hofmann and Doan (2018) is that to experience fear in a situation, one must have the awareness that they are the actual person in danger. In a video game, it is a fictional character that may be in danger, but is fundamentally detached from the player or self who controls the character. However, in real life, you are in danger or in control of yourself. For that reason, people are not concerned about crashing a car or fighting to the death in video games because they lack a true sense of self. That is, without the explicit awareness of the self and its relation to the world, an emotion like fear would not be present. Moreover, if an individual lacks self-awareness, then emotional experiences would not inflict much distress, which would negate the need for utilising emotion-regulation strategies.

This theory relates to Beckes et al. (2012) in the sense that an individual requires external, social awareness in order to experience emotions and engage in emotion regulation. Just as the human brain learns about its available social resources over time, an individual also develops heightened awareness to its surroundings with time. Thus, it is important to have self-awareness as well as awareness of others when considering emotion regulation and its social nature because humans exist within the context of themselves, internally, and others, externally. Taking into account the nature of self- and emotional awareness, the following sections will emphasise the social nature of experiencing and regulating the emotions of oneself and others over time. Whether that be in the context of parent-child relationships, peer interactions, stages of childhood, adulthood, and ageing, there is a breadth of literature within the psychological sciences that supports models of social regulation.

Developmental History

From a developmental perspective, a notable form of social interaction is that between parent and child, with the mother-infant relationship being highlighted by early works in attachment theory and early interactions. Bowlby founded attachment theory on the principle that children construct malleable cognitions about the degree of responsiveness of their parent or caretaker (Bowlby, 1969, 2005). Bowlby's theory is based on a child's needs and general acceptance in response to their parent or provider. Child attachment styles are typically defined as secure, insecure, avoidant, or ambivalent in nature, with secure attachment being the most adaptive and beneficial. Cassidy (1994) provides evidence for the role that attachment plays in anticipating later emotion regulation, but it is nearly impossible to consider attachment styles without also studying the nature of parent-child relationships on which attachment style is heavily dependent. For example, securely attached babies typically develop as a result of attentive parents who encourage and adapt to emotions instead of encouraging suppression of them. Insecure infants, however, tend to express emotions more ambiguously by acting inconsistently in their want of attention but avoidance of comfort. These inconsistent behaviours are often the result of parents with unpredictable responses to their child's expressions of emotions, according to Isabella and Belsky (1991). Additionally, as Hofmann and Doan (2018) note, avoidant attachment style (a type of insecure attachment) has also been linked to suppression behaviours and aggression (Malatesta et al., 1989; Renken, Egeland, Marvinney, Mangelsdorf, & Sroufe, 1989).

Another seminal experiment that illustrates the power of parent-child interaction is the Strange Situation. This classic paradigm from Ainsworth and colleagues places infants in situations where they are with or without their mothers in the presence of a stranger. Infants who are secure will be upset when their mother leaves and joyful when she returns to the room. The presence of the stranger does not cause notable distress for secure kids either. However, insecure infants will often respond negatively to their mother's absence and return (Ainsworth & Bell, 1970; Ainsworth, Blehar, Waters, & Wall, 1978). Thus, the connection between parent-child interactions, as a function of attachment and development, highlights the fundamental social nature of emotion regulation.

https://doi.org/10.1017/bec.2018.19 Published online by Cambridge University Press

Early parent-child interactions are also important predictors of a child's neurobiological and temperamental development (Field, Diego, & Hernandez-Reif, 2006; Gunnar & Donzella, 2002; Posner, Rothbart, & Sheese, 2007). As such, the developing relationship between mother and child, specifically, has an impact on future use of emotion-regulation strategies. During infancy, children primarily communicate with caregivers through crying and cooing in an effort to signal to their caregiver that some need is not being met (hunger, sleep, needing to be changed). However, as Derryberry and Rothbart (1997) conclude, increases in executive functions over time work to enrich emotion-regulation ability and open doors to new ways of managing and communicating about emotions. Furthermore, as Hofmann and Doan (2018) emphasise in their review of family influences, what begins with heavy reliance on parental regulation of the child's emotions develops into a more evenly distributed relationship, assuming a healthy bond between the child and parent.

Just as important to the bond as attachment, from the child's perspective, is the role of parenting style. Conceptualised in terms of attentiveness, warmth, and control, Baumrind's (1993) classic model of parental style asserts that parents are authoritative, authoritarian, or permissive. Typically, authoritative parenting style is preferred because the child experiences optimal levels of support and control, which leads to more emotion-regulation use and improved ability (as well as more appropriate examples of *how* to regulate emotions; Grolnick & Ryan, 1989; Morris, Silk, Steinberg, Myers, & Robinson, 2007). However, the permissive parenting style is actually linked to *poorer* emotion regulation in the long run, despite its dependence on agreeableness and giving in to child demands in the short term (Rubin, Hastings, Chen, Stewart, & McNichol, 1998). It should be noted that although most work on parent-child relationships focuses on mothers, the role of insufficient or unsupportive paternal interaction has been associated with negative behavioural and affective outcomes in their children as well (Carrère & Bowie, 2012; Sanders, Zeman, Poon, & Miller, 2015).

One can see the clear connections between research on attachment and parenting styles and theories positing humans' use of interpersonal emotion regulation, given that children in enriching sociodevelopmental environments are able to mirror appropriate affect and regulation, learn about their environment over time, and develop proper social support networks with their caretakers to lessen negative affect and arousal. It can be argued that a healthy familial environment creates one of the earliest sources of social baselines for the brain, in support of the SBT model from Beckes and Coan (2011) and Coan and Maresh (2013). Early experiences likely shape one's differential choice and use of emotion-regulation strategies as well as one's tendency and efficiency for using them, respectively, which may be the basis for interpersonal emotion-regulation strategies captured by Williams and colleagues' (2018) scale.

Early Relationships

Hofmann and Doan (2018) provide several examples of the role of sibling interaction in the formation of interpersonal regulation skills, stating that it is a unique opportunity for disputes, anger and stress, which can be good tests for emotion-regulation strategy development and use. It is no surprise that older siblings can provide the same safety and support as parents to younger siblings if the relationship is properly developed. These assertions are further highlighted by the works of Bedford and Avioli (2001) and Bedford and Volling (2004), who also conclude that siblings tend to be good 'co-regulators' of emotions. Hofmann and Doan (2018) also note that parent-adolescent research is also growing but incomplete and in need of further research. (Eisenberg, Fabes, & Murphy, 1996; Eisenberg, Fabes, Shepard, Guthrie, Murphy, and Reiser, 1999; Klimes-Dougan et al., 2007; Yap, Allen, & Ladouceur, 2008).

Social Networks and Romantic Relationships

As children become more independent from their parents and become adolescents and adults, they form friendships, interaction networks, and romantic connections. These diverse types of interaction

https://doi.org/10.1017/bec.2018.19 Published online by Cambridge University Press

undoubtedly shape the way interpersonal skills and emotion-regulation strategies develop and come into use. Given that friendships are more vulnerable to change and failure than familial relationships, it is important that one act appropriately or risk losing that relationship (Hofmann & Doan, 2018). Kullik and Petermann (2013) examined attachment to parents and peers as a precursor to emotion regulation at both intra- and interpersonal levels. Results related to friendship showed that women's attachment to peers led to more employment of functional intrapersonal regulation strategies. However, research on co-rumination between friends highlights the differential consequences of disclosure, closeness, and rumination. For example, Rose (2002) conducted a study of co-rumination using a large sample of 3rd-, 5th-, 7th-, and 9th-graders and found that while disclosing emotional details or events aided in the *perception* that friendships were close, there were also associations between co-ruminating behaviours, anxiety, and depression. Clearly, these results emphasise that emotion regulation has the capacity to be a social process. There is also evidence to suggest that the mere perception of support and peer relations can affect emotional outcomes (Laible, Carlo, & Raffaelli, 2000) and that perspective-taking and general perception of emotion draws heavily from one's association with other peers (Burleson & Kunkel, 2002; Hofmann & Doan, 2018).

Social network research by Niven, Garcia, van der Löwe, Holman, and Mansell (2015) provides further evidence for interpersonal processes in emotion regulation, such that those who used interpersonal emotion-regulation strategies over the course of the 12-week study actually increased their popularity, as measured by reports of others saying they were spending time together. Niven and colleagues also found that interpersonal emotion-regulation strategy use was associated with an increase in the number of Twitter followers an individual gained in a sample of 8,000 users. Interestingly, Niven and colleagues (2015) also found that the *type* of interpersonal strategy had an impact on the results, with behavioural strategy use (i.e., strategies that call a person into action to help someone else) leading to greater popularity within the social network, in comparison to cognitive strategies (i.e., strategies aimed at changing one's perception or thoughts about a situation). Given that social network analysis is dependent on reports from groups of interconnected people with varying levels of interaction, Niven and colleagues provide the field of interpersonal emotion regulation with valuable support that the concept is based in social interaction.

When considering romantic relationships, Debrot, Schoebi, Perrez, and Horn (2013) show that the romantic touch of a partner has an impact on interpersonal emotion regulation and general affect. In this study, four daily diary entries were completed for 1 week in dating partners, with results indicating that touch between partners was associated with increased positive affect and intimacy in their romantic counterparts as well as in the actor himself. These effects were related to better psychological functioning at 6-month follow-up as well. Of course, further research is needed in this area, but Debrot and colleagues provide initial support for the role of touch in interpersonal emotion regulation, similar to work by Coan et al. (2006).

Additionally, recent findings by Levy-Gigi and Shamay-Tsoory (2017) suggest that interpersonal emotion regulation, in the form of perspective-taking, was more effective in reducing a romantic partner's distress than intrapersonal regulation strategies. In this study, long-term heterosexual couples were assigned to either a regulatory role or a target role and were instructed to either use a strategy of their choosing or one that their counterpart chose. Results showed that having another person's perspective and engaging in cognitive empathy were more effective at reducing the negative emotions of a partner. Interestingly, Niven and colleagues' (2015) findings that cognitive emotion-regulation skills were less effective in increasing social connections than behavioural skills seemingly contradicts the findings of Levy-Gigi and Shamay-Tsoory (2017). However, these differential results may suggest that strategies for attaining friendships and popularity may be fundamentally different from strategies used to enhance romantic relationships and support.

Relationships in Adulthood

There is a significant lack of attention placed on interpersonal emotion regulation within the adult psychological literature, with the majority of it focusing on intrapersonal processes. This is troubling

https://doi.org/10.1017/bec.2018.19 Published online by Cambridge University Press

given the significant change in emotion regulation that takes place during the transition from childhood to adulthood, namely that one's ability and efficacy for regulating one's own and others' emotions increases with age (Hofmann & Doan, 2018). There are, however, several notable works that illustrate the social nature of emotion regulation in adulthood.

Specifically, sharing one's experiences with others has been studied in relation to adulthood and emotion regulation. For example, the work of Marroquín (2011) suggests that trusted others are able to aid in suppression, reappraisal, and the modification of thinking patterns that may decrease emotional distress or increase closeness in the event of a supportive listener (Lepore, Fernandez-Berrocal, Ragan, & Ramos, 2004). Evidence from the social sharing literature reveals that sharing everyday experiences and emotions with others is beneficial because it provides a sense of closeness and support (Lakey & Orehek, 2011; Rimé, 2009). Other benefits of sharing with supportive others include better efficacy when using emotion-regulation strategies as well as the use of more adaptive, helpful techniques to regulate one's own emotions (DeLongis & Holtzman, 2005; Holtzman, Newth, & Delongis, 2004). This may be due to mirroring the reactions of others or simply due to the fact that receiving support decreases one's fear or discomfort about sharing more in the future due to increased trust.

During old age, there is evidence to suggest that emotions and emotion regulation may work differently than during other parts of the lifespan. For example, several researchers have suggested declines in the experience of, and the overall impact of negative emotions on general mood in older adults (Carstensen, Pasupathi, Mayr, & Nesselroade, 2000; Gross, Carstansen, Pasupathi, Tsai, Gotestam-Skorpen, & Hsu, 1997, as cited in Hofmann & Doan, 2018). Others indicate that elderly individuals experience different motivations and cognitions when compared to other age groups as a result of their decreasing lifespan, according to Carstensen's (1993) socioemotional selectivity theory (SST). Thus, it appears that emotionality in old age is fundamentally different from other stages of life. There is also reason to believe that older individuals experience more positive emotions and outlooks on events (Isaacowitz, Toner, Goren, & Wilson, 2008; Mroczek & Kolarz, 1998), in addition to a greater affinity for using effective emotion-regulation skills, such as reappraisal (Blanchard-Fields, Mienaltowski, & Seay, 2007; Shiota & Levenson, 2009).

In sum, interpersonal emotion regulation is a dynamic process that develops not only at the individual level, but at the social level over time. To consider the process of emotion regulation without addressing the social components and impacts would be to exclude the formative years of attachment and parental style, the transitional period of adolescence to independence, the development of social networks, intimacy and agency of adulthood, and the alterations in outlook of old age. Given the rich literature that supports the social nature of emotion regulation, it would be inaccurate to assume that emotion regulation exists only *intra*personally. Rather, it is the breadth of aforementioned literature that firmly supports the models of Beckes and Coan (2011), Hofmann (2014), Zaki and Williams (2013), which address the social and environmental impacts on emotion regulation utilisation and development.

Interpersonal Emotion-Regulation Outcomes

Effective Interpersonal Emotion Regulation

Throughout this review, evidence for the social nature of emotion regulation has been provided in support of several key models of interpersonal emotion regulation. The literature also details multiple positive outcomes associated with effective engagement in interpersonal emotion-regulation strategies. Recall from earlier sections that Williams and colleagues (2018) reported that the tendency to use interpersonal strategies along with efficacy in employing those skills were associated with social connection, empathy, and emotional expression, which is supported by previous research on use of effective skills (DeLongis & Holtzman, 2005; Holtzman et al., 2004). Furthermore, we have reviewed data on the positive effects of bonding and reduced distress in relationships (Lakey & Orehek, 2011; Lepore et al., 2004; Marroquín, 2011; Rimé, 2009).

https://doi.org/10.1017/bec.2018.19 Published online by Cambridge University Press

Within a team context, Campo, Sanchez, Ferrand, Rosnet, Friesen, and Lane (2017) explored the mechanisms of emotion regulation in two studies of men's rugby teams. Their first study revealed results in support of intrinsic and extrinsic interpersonal models wherein rugby athletes co-regulated with their teammates while also engaging in unshared regulation of another person's emotions. They also found that players engaged in interpersonal emotion regulation to help others and/or to benefit themselves (Campo et al., 2017). These results are a meaningful beginning to researching and supporting interpersonal models in emotion regulation. The context of teams and groups, specifically, provides an optimal environment for testing the strategies and mechanisms behind social emotion regulation.

Evidence suggests that there are social gains associated with effective use of interpersonal emotion-regulation strategies in the context of romantic relationships and friendships as well. Although not an explicit study of interpersonal emotion regulation, Lopes, Salovey, Côté, Beers, and Petty (2005) found that emotion-regulation ability was related to both one's perceptions about being interpersonally sensitive and with partners mutually indicating friendships. That is, if Sally scored high in emotion-regulation ability, she and other people within her social network were more likely to call themselves mutual friends. Thus, we see a positive link between emotion-regulation ability and social connectedness, leaving ample room for inquiry about the role of social emotion regulation in relationships.

Interpersonal Emotion Dysregulation

Thus far we have seen the models, social elements, and benefits associated with interpersonal emotion regulation; however, the link between emotion *dysregulation* and psychopathology is important to consider as well. Hofmann (2014) formulated an interpersonal emotion-regulation model for mood and anxiety disorders. Present in both the creation and maintenance of those disorders, interpersonal components include communication patterns, countering avoidance, and addressing the presence of safety behaviours. For example, Hofmann (2014) highlights that close friends, family, or romantic partners often provide individuals with a sense of safety and that repetitive exposure causes an association between the person and less distress, ultimately creating a safety behaviour and sense of avoidance. Someone with panic disorder may feel, whether intentionally or not, that they are only able to weather the storm of a panic attack if their romantic partner is with them through its duration. In other words, the person is avoiding the full experience of the panic attack and would rather blunt some of the distress by being in the presence of a safety person. Given that avoidance maintains anxiety, it is necessary to incorporate the interpersonal model of emotion regulation into treatment for anxiety to recognise and eliminate safety behaviours.

Hofmann (2014) further evaluates the use of the interpersonal model in depression by reviewing literature that finds poorer, negatively valenced communication styles between spouses when one partner is depressed (Jacob & Johnson, 1997; Rehman, Gollan, & Mortimer, 2008). For example, one study found that wives often display these negative communication patterns that ultimately hinder the spouse's ability to successfully provide support and interpersonal regulation for their partner (Rehman, Ginting, Karimiha, & Goodnight, 2010). Thus, it is clear from these theoretical perspectives that interpersonal emotion regulation, whether adaptive or maladaptive, play a key role in the presentation and maintenance of anxiety and depression.

Following the conceptualisation of the interpersonal model, Hofmann, Carpenter, and Curtiss (2016) developed and tested the Interpersonal Emotion Regulation Questionnaire (IERQ), which is a 20-item survey of how individuals use others to regulate their emotions. The authors identified four subtypes after testing their scale in a large healthy adult sample. Individuals used others to (1) enhance positive emotions, (2) gain perspective about their situation, (3) soothe one another, and (4) model or mirror the coping or reaction strategies of others. Their findings provided one of the first measurable means of support for interpersonal models, which also aligns with the recent questionnaire data from Williams and colleagues (2018).

Emotion dysregulation in the form of avoidance behaviours, safety people/behaviours, and ineffective communication in the face of depression can all lead to distress and negative outcomes (Hofmann,

https://doi.org/10.1017/bec.2018.19 Published online by Cambridge University Press

2014). Hofmann suggests that the improper use of interpersonal strategies may also contribute to mental health problems if they perpetuate or maintain the disorder. A specific example of this may be reassurance-seeking behaviours in obsessive compulsive disorder (Hofmann, 2014). Although seeking reassurance may make an individual with obsessive compulsive disorder feel momentary relief from negative emotion, it ultimately serves as a form of avoidance and thus maintains the individual's anxiety over time. As such, engagement in interpersonal emotion regulation with the aim of providing reassurance in this situation would have a negative long-term outcome. Other research has suggested that generalised anxiety disorder (GAD) may also be characterised by deficits in emotion regulation, which may lead to further maladaptive interpersonal actions (Mennin, Heimberg, Turk, & Fresco, 2005). Research suggests that improper self-regulation often leads to problems with expressing emotions in the context of others and that therapy for GAD should include psychoeducation about emotions, emotion-regulation skills, and interpersonal strategies (Mennin et al., 2005).

In the case of depression, Marroquín's (2011) review concludes that emotion regulation is connected to depression and that *interpersonal* skills and regulation may act as the mechanism through which social support acts on depression. From this we can see that a deficit in social support or interpersonal skills may contribute to one's risk of depression, which is consistent with the literature we reviewed about peer and parent-child relationships. Furthermore, although not an explicit examination of emotion-regulation skills, it has been shown that there are significant social and interpersonal factors associated with suicidality in teenagers (for review, see King & Merchant, 2008). They argue that interpersonal problems in childhood and adolescence strain one's emotion-regulation system and teach the individual that proper use of interpersonal skills is dangerous or unacceptable. Interpersonal factors that contribute to suicidality include: family and peer support, isolation, victimisation, neglect, and abuse (King & Merchant, 2008). Given the association between suicidality and depression, it is possible that similar mechanisms may be involved in both and that special emphasis should be placed on teaching proper interpersonal emotion-regulation skills within a therapy context for patients experiencing these kinds of distress and impairment. Thus, experiencing a negative social environment can influence the way one learns interpersonal emotion-regulation skills and the way one employs them in the future.

In addition to mood and anxiety disorders, other research indicates that difficulties in interpersonal emotion regulation also affects the risk and maintenance of substance use and personality disorders, such as borderline personality disorder, as well as post-traumatic stress disorder (PTSD) symptomology. For example, Dingle, Neves, Alhadad, and Hides (2018) examined interpersonal emotion regulation in adults with or without substance use disorders and found differences related to the regulation, sharing, and awareness of emotions. Specifically, those with substance use problems expected that they would *not* experience anxious or depressed feelings, as measured by the Social Emotion Expectancy Scale. This finding may indicate that people with substance use problems have different expectancies regarding emotional experiences than controls. Moreover, when asked to look at positive or negative faces, people with substance use disorders displayed less flexibility in their own facial expressions when mimicking the faces they saw if they were told to engage in emotion regulation (Dingle et al., 2018). Thus, it seems that recognition and mirroring of appropriate affect during attempts to engage in interpersonal emotion regulation may be impaired in those with substance use disorders. In another study of interpersonal emotion regulation and borderline personality disorder, Dixon-Gordon, Whalen, Scotts, Cummins, and Stepp (2016) found that maternal interpersonal emotion regulation moderated the association between negative affect and borderline personality disorder symptoms in adolescent females. That is, low maternal support coupled with high amounts of problem solving increased the risk of developing borderline personality disorder. These results suggest that not only is it important to utilise appropriate interpersonal skills, but that it is also important for social contacts like parents, friends, and peers to aid individuals in effective emotion regulation as well.

Interpersonal emotion dysregulation has also been studied in relation to child abuse and PTSD symptoms. Cloitre, Miranda, Stovall-McClough, and Han (2005) studied treatment-seeking women with PTSD-symptoms and a history of child abuse and found that interpersonal problems and emotion dysregulation accounted for significant variance in functional impairments after controlling for

https://doi.org/10.1017/bec.2018.19 Published online by Cambridge University Press

underlying PTSD symptoms. Thus, it seems that exposure to a maladaptive environment as a child contributes to future use of emotion-regulation skills.

Lastly, Dixon-Gordon, Haliczer, Conkey, and Whalen (2018) recently developed a scale to measure difficulties in interpersonal emotion regulation and found a significant association between high scores (indicating more difficulty in using interpersonal emotion regulation) and symptoms of borderline personality disorder, anxiety, and depression. Specifically, Dixon-Gordon and colleagues (2018) found that venting as a form of regulation was related to borderline personality disorder and anxiety. Additionally, while depression was more associated with *deficits* in reassurance-seeking behaviours, an increase in reassurance-seeking was connected with anxiety and borderline personality disorder (Dixon-Gordon et al., 2018). These results are consistent with clinical presentations such as social withdrawal and isolation in depression and the uncertainty of appropriateness of behaviours in anxiety. Additionally, given the interpersonal difficulties experienced by individuals with borderline personality disorder, it makes sense that reassurance-seeking may be increased to abnormal levels in attempts to counteract those behaviours.

In sum, humans are social creatures who regulate and experience emotions within the context of others. As such, it is not surprising that psychopathology and deficits in emotion regulation also exist in a social domain. Although the connections between mental illness and interpersonal emotion regulation are somewhat preliminary, it is an ever-growing field of research that provides insight into the risk, maintenance, and potential treatment mechanisms that are associated with psychopathology.

Conclusion

Despite the success and fundamental importance of exploring intrapersonal processes of emotion regulation (e.g., Gross, 1998), it is necessary to continue studying the social nature of emotion regulation, given the social nature of humans. As shown by the seminal works of Beckes and Coan (2011), Hofmann (2014), and Zaki and Williams (2013), it is important that psychological research on emotion regulation take an interpersonal and lifespan approach. This review has shown the cumulative effects of adaptive and maladaptive social environments on interpersonal emotion regulation in childhood, adolescence, adulthood, and old age. It is clear that one's social relationships, support, and emotional expression early on have compounding effects on the tendency and efficiency with which individuals engage in interpersonal emotion regulation. Importantly, literature discussed in this article shows that interpersonal emotion regulation has been found to be an effective form of emotion regulation. However, there are also important ways in which interpersonal emotion regulation can go awry and potentially relate to the presence of psychopathology. Given its rich research history across psychological and developmental fields in addition to its blossoming future in relation to social support, wellbeing and psychopathology, it is vital that future work investigates the significant role of interpersonal emotion regulation in the human experience.

Disclosure

Dr Hofmann receives financial support from the Alexander von Humboldt Foundation (as part of the Humboldt Prize), NIH/NCCIH (R01AT007257), NIH/NIMH (R01MH099021, U01MH108168), and the James S. McDonnell Foundation 21st Century Science Initiative in Understanding Human Cognition — Special Initiative. He receives compensation for his work as an advisor from the Palo Alto Health Sciences and for his work as a Subject Matter Expert from John Wiley & Sons, Inc. and SilverCloud Health, Inc. He also receives royalties and payments for his editorial work from various publishers.

References

Ainsworth M.D.S., & Bell S.M. (1970). Attachment, exploration, and separation: Illustrated by the behavior of one-year-olds in a strange situation. *Child Development*, **41**, 49–67. doi:10.2307/1127388

https://doi.org/10.1017/bec.2018.19 Published online by Cambridge University Press

Ainsworth M.D., Blehar M., Waters E., & Wall S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Lawrence Erlbaum Associate.

Aldao A., & Nolen-Hoeksema S. (2010). Specificity of cognitive emotion regulation strategies: A transdiagnostic examination. *Behaviour Research and Therapy*, **48**, 974–983. doi:10.1016/j.brat.2010.06.0 02

Aldao A., Nolen-Hoeksema S., & Schweizer S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*, **30**, 217–237. doi:10.1016/j.cpr.2009.11.004

Baumrind D. (1993). The average expectable environment is not good enough: A response to Scarr. *Child Development*, **64**, 1299–1317. doi:10.1111/j.1467-8624.1993.tb02954.x

Beckes L., & Coan J.A. (2011). Social baseline theory: The role of social proximity in emotion and economy of action. *Social and Personality Psychology Compass*, **5**, 976–988. doi:10.1111/j.1751-9004.2011.00400.x

Beckes L., Coan J.A., & Hasselmo K. (2012). Familiarity promotes the blurring of self and other in the neural representation of threat. *Social cognitive and affective neuroscience*, **8**, 670–677. doi:10.1093/scan/nss046

Bedford V.H., & Avioli P.S. (2001). Variations on sibling intimacy in old age. *Generations*, **25**, 34–40.

Bedford V.H., & Volling B.L. (2004). A dynamic ecological systems perspective on emotion regulation development within the sibling relationship context. In F.R. Lang & K.L. Fingerman (Eds.), *Advances in personal relationships. Growing together: Personal relationships across the lifespan* (pp. 76–102). New York, NY: Cambridge University Press.

Blanchard-Fields F., Mienaltowski A., & Seay R.B. (2007). Age differences in everyday problem-solving effectiveness: Older adults select more effective strategies for interpersonal problems. *The Journals of Gerontology: Series B*, **62**, 61–64. doi:10.1093/geronb/62.1.P61

Bowlby J. (1969). *Attachment and Loss, Vol. 1: Attachment*. New York, NY: Basic Books.

Bowlby J. (2005). *Clinical applications of attachment theory*. London: Taylor & Francis.

Burleson B.R., & Kunkel A. (2002). Parental and peer contributions to the emotional support skills of the child: From whom do children learn to express support? *Journal of Family Communication*, **2**, 81–97. doi:10.1207/S15327698JFC0202_02

Campo M., Sanchez X., Ferrand C., Rosnet E., Friesen A., & Lane A.M. (2017). Interpersonal emotion regulation in team sport: Mechanisms and reasons to regulate teammates' emotions examined. *International Journal of Sport and Exercise Psychology*, **15**, 379–394. doi:10.1080/1612197X.2015.1114501

Carrère S., & Bowie B.H. (2012). Like parent, like child: Parent and child emotion dysregulation. *Archives of Psychiatric Nursing*, **26**, e23–e30. doi:10.1016/j.apnu.2011.12.008

Carstensen L.L. (1993). Motivation for social contact across the life span: A theory of socioemotional selectivity. In J.E. Jacobs (Ed.), *Current theory and research in motivation, Vol. 40. Nebraska Symposium on Motivation, 1992: Developmental perspectives on motivation* (pp. 209–254). Lincoln, NE: University of Nebraska Press.

Carstensen L.L., Pasupathi M., Mayr U., & Nesselroade J.R. (2000). Emotional experience in everyday life across the adult life span. *Journal of Personality and Social Psychology*, **79**, 644–655. doi:10.1037/0022-3514.79.4.644

Cassidy J. (1994). Emotion regulation: Influences of attachment relationships. *Monographs of the Society for Research in Child Development*, **59**, 228–249. doi:10.2307/1166148

Cloitre M., Miranda R., Stovall-McClough K.C., & Han H. (2005). Beyond PTSD: Emotion regulation and interpersonal problems as predictors of functional impairment in survivors of childhood abuse. *Behavior Therapy*, **36**, 119–124. doi:10.1016/S0005-7894(05)80060-7

Coan J.A., Beckes L., & Allen J.P. (2013). Childhood maternal support and social capital moderate the regulatory impact of social relationships in adulthood. *International Journal of Psychophysiology*, **88**, 224–231. doi:10.1016/j.ijpsycho.2013.04.006

Coan J.A., & Maresh E.L. (2013). Social baseline theory and the social regulation of emotion. In J.J. Gross (Ed.), *The science of the couple* (pp. 231–236). New York, NY: Psychology Press.

Coan J.A., Schaefer H.S., & Davidson R.J. (2006). Lending a hand: Social regulation of the neural response to threat. *Psychological Science*, **17**, 1032–1039. doi:10.1111/j.1467-9280.2006.01832.x

Debrot A., Schoebi D., Perrez M., & Horn A. (2013). Touch as an interpersonal emotion regulation process in couples' daily lives: The mediating role of psychological intimacy. *Personality and Social Psychology Bulletin*, **39**, 1373–1385. doi:10.1177/0146167213497592

DeLongis A., & Holtzman S. (2005). Coping in context: The role of stress, social support, and personality in coping. *Journal of Personality*, **73**, 1633–1656. doi:10.1111/j.1467-6494.2005.00361.x

Dennis T.A. (2007). Interactions between emotion regulation strategies and affective style: Implications for trait anxiety versus depressed mood. *Motivation and Emotion*, **31**, 200–207. doi:10.1007/s11031-007-9069-6

Derryberry D., & Rothbart M.K. (1997). Reactive and effortful processes in the organization of temperament. *Development and Psychopathology*, **9**, 633–652. doi:10.1017/S0954579497001375

Dingle G.A., Neves D.D.C., Alhadad S.S., & Hides L. (2018). Individual and interpersonal emotion regulation among adults with substance use disorders and matched controls. *British Journal of Clinical Psychology*, **57**, 186–202. doi:10.1111/bjc.12168

Dixon-Gordon K.L., Haliczer L.A., Conkey L.C., & Whalen D.J. (2018). Difficulties in interpersonal emotion regulation: Initial development and validation of a self-report measure. *Journal of Psychopathology and Behavioral Assessment*, **40**, 528–549. doi:10.1007/s10862-018-9647-9

https://doi.org/10.1017/bec.2018.19 Published online by Cambridge University Press

Dixon-Gordon K.L., Whalen D.J., Scott L.N., Cummins N.D., & Stepp S.D. (2016). The main and interactive effects of maternal interpersonal emotion regulation and negative affect on adolescent girls' borderline personality disorder symptoms. *Cognitive Therapy and Research*, **40**, 381–393. doi:10.1007/s10608-015-9706-4

Eisenberg N., Fabes R.A., & Murphy B.C. (1996). Parents' reactions to children's negative emotions: Relations to children's social competence and comforting behavior. *Child Development*, **67**, 2227–2247. doi:10.2307/1131620

Eisenberg N., Fabes R.A., Shepard S.A., Guthrie I.K., Murphy B.C., & Reiser M. (1999). Parental reactions to children's negative emotions: longitudinal relations to quality of children's social functioning. *Child Development*, **70**, 513–534. doi:10.1111/1467-8624.00037

Field T., Diego M., & Hernandez-Reif M. (2006). Prenatal depression effects on the fetus and newborn: A review. *Infant Behavior and Development*, **29**, 445–455. doi:10.1016/j.infbeh.2006.03.003

Gable S.L., Reis H.T., Impett E.A., & Asher E.R. (2004). What do you do when things go right? The intrapersonal and interpersonal benefits of sharing positive events. *Journal of Personality and Social Psychology*, **87**, 228–245. doi:10.1037/0022-3514.87.2.228

Grolnick W.S., & Ryan R.M. (1989). Parent styles associated with children's self-regulation and competence in school. *Journal of Educational Psychology*, **81**, 143–154. doi:10.1037/0022-0663.81.2.143

Gross J.J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, **2**, 271–299. doi:10.1037/1089-2680.2.3.271

Gross J.J., Carstensen L.L., Pasupathi M., Tsai J., Götestam Skorpen C., & Hsu A.Y. (1997). Emotion and aging: Experience, expression, and control. *Psychology and Aging*, **12**, 590–599. doi:10.1037/0882-7974.12.4.590

Gunnar M.R., & Donzella B. (2002). Social regulation of the cortisol levels in early human development. *Psychoneuroendocrinology*, **27**, 199–220. doi:10.1016/S0306-4530(01)00045-2

Hofmann S.G. (2014). Interpersonal emotion regulation model of mood and anxiety disorders. *Cognitive Therapy and Research*, **38**, 483–492. doi:10.1007/s10608-014-9620-1

Hofmann S.G., & Doan S.N. (2018). *The social foundations of emotion: Developmental, cultural, and clinical dimensions*. Washington, DC: American Psychological Association.

Hofmann S.G., Carpenter J.K., & Curtiss J. (2016). Interpersonal Emotion Regulation Questionnaire (IERQ): Scale development and pychometric characteristics. *Cognitive Therapy and Research*, **40**, 341–356. doi:10.1007/s10608-016-9756-2

Hofmann S.G., Heering S., Sawyer A.T., & Asnaani A. (2009). How to handle anxiety: The effects of reappraisal, acceptance, and suppression strategies on anxious arousal. *Behaviour Research and Therapy*, **47**, 389–394. doi:10.1016/j.brat.2009.02.010

Holtzman S., Newth S., & Delongis A. (2004). The role of social support in coping with daily pain among patients with rheumatoid arthritis. *Journal of Health Psychology*, **9**, 677–695. doi:10.1177/1359105304045381

Isaacowitz D.M., Toner K., Goren D., & Wilson H.R. (2008). Looking while unhappy: Mood-congruent gaze in young adults, positive gaze in older adults. *Psychological Science*, **19**, 848–853. doi:10.1111/j.1467-9280.2008.02167.x

Isabella R.A., & Belsky J. (1991). Interactional synchrony and the origins of infant-mother attachment: A replication study. *Child Development*, **62**, 373–384. Retrieved from https://www.jstor.org/

Jacob T., & Johnson S.L. (1997). Parent–child interaction among depressed fathers and mothers: Impact on child functioning. *Journal of Family Psychology*, **11**, 391–409. doi:10.1037/0893-3200.11.4.391

King C.A., & Merchant C.R. (2008). Social and interpersonal factors relating to adolescent suicidality: A review of the literature. *Archives of Suicide Research*, **12**, 181–196. doi:10.1080/13811110802101203

Klimes-Dougan B., Brand A.E., Zahn-Waxler C., Usher B., Hastings P.D., Kendziora K., & Garside R.B. (2007). Parental emotion socialization in adolescence: Differences in sex, age and problem status. *Social Development*, **16**, 326–342. doi:10.1111/j.1467-9507.2007.00387.x

Kullik A., & Petermann F. (2013). Attachment to parents and peers as a risk factor for adolescent depressive disorders: The mediating role of emotion regulation. *Child Psychiatry & Human Development*, **44**, 537–548. doi:10.1007/s10578-012-0347-5

Laible D.J., Carlo G., & Raffaelli M. (2000). The differential relations of parent and peer attachment to adolescent adjustment. *Journal of Youth and Adolescence*, **29**, 45–59. doi:10.1023/A:1005169004882

Lakey B., & Orehek E. (2011). Relational regulation theory: A new approach to explain the link between perceived social support and mental health. *Psychological Review*, **118**, 482–495. doi:10.1037/a0023477

Langston C.A. (1994). Capitalizing on and coping with daily-life events: Expressive responses to positive events. *Journal of Personality and Social Psychology*, **67**, 1112–1125. doi:10.1037/0022-3514.67.6.1112

LeDoux J.E., & Brown R. (2017). A higher-order theory of emotional consciousness. *Proceedings of the National Academy of Sciences*, **114**, E2016–E2025.

Lepore S.J., Fernandez-Berrocal P., Ragan J., & Ramos N. (2004). It's not that bad: Social challenges to emotional disclosure enhance adjustment to stress. *Anxiety, Stress, & Coping*, **17**, 341–361. doi:10.1080/10615800412331318625

Levy-Gigi E., & Shamay-Tsoory S.G. (2017). Help me if you can: Evaluating the effectiveness of interpersonal compared to intrapersonal emotion regulation in reducing distress. *Journal of Behavior Therapy and Experimental Psychiatry*, **55**, 33–40. doi:10.1016/j.jbtep.2016.11.008

https://doi.org/10.1017/bec.2018.19 Published online by Cambridge University Press

Lopes P.N., Salovey P., Côté S., Beers M., & Petty R.E. (2005). Emotion regulation abilities and the quality of social interaction. *Emotion*, **5**, 113. doi: 10.1037/1528-3542.5.1.113

Marroquín B. (2011). Interpersonal emotion regulation as a mechanism of social support in depression. *Clinical Psychology Review*, **31**, 1276–1290. doi:10.1016/j.cpr.2011.09.005

Malatesta C.Z., Culver C., Tesman J.R., Shepard B., Fogel A., Reimers M., & Zivin G. (1989). The development of emotion expression during the first two years of life. *Monographs of the Society for Research in Child Development*, **54**, i–136. doi:10.2307/1166153

Mennin D.S., Heimberg R.G., Turk C.L., & Fresco D.M. (2005). Preliminary evidence for an emotion dysregulation model of generalized anxiety disorder. *Behaviour Research and Therapy*, **43**, 1281–1310. doi:10.1016/j.brat.2004.08.008

Morris A.S., Silk J.S., Steinberg L., Myers S.S., & Robinson L.R. (2007). The role of the family context in the development of emotion regulation. *Social Development*, **16**, 361–388. doi:10.1111/j.1467-9507.2007.00389.x

Mroczek D.K., & Kolarz C.M. (1998). The effect of age on positive and negative affect: A developmental perspective on happiness. *Journal of Personality and Social Psychology*, **75**, 1333–1349. doi:10.1037/0022-3514.75.5.1333

Niven K., Garcia D., van der Löwe I., Holman D., & Mansell W. (2015). Becoming popular: Interpersonal emotion regulation predicts relationship formation in real life social networks. *Frontiers in Psychology*, **6**, 1452. doi:10.3389/fpsyg.2015.01452

Nolen-Hoeksema S. (2000). The role of rumination in depressive disorders and mixed anxiety/depressive symptoms. *Journal of Abnormal Psychology*, **109**, 504–511. doi:10.1037/0021-843X.109.3.504

Ochsner K.N., & Gross J.J. (2008). Cognitive emotion regulation: Insights from social cognitive and affective neuroscience. *Current Directions in Psychological Science*, **17**, 153–158. doi:10.1111/j.1467-8721.2008.00566.x

Posner M.I., Rothbart M.K., & Sheese B.E. (2007). Attention genes. *Developmental Science*, **10**, 24–29. doi:10.1111/j.1467-7687.2007.00559.x

Rehman U.S., Gollan J., & Mortimer A.R. (2008). The marital context of depression: Research, limitations, and new directions. *Clinical Psychology Review*, **28**, 179–198. doi:10.1016/j.cpr.2007.04.007

Rehman U.S., Ginting J., Karimiha G., & Goodnight J.A. (2010). Revisiting the relationship between depressive symptoms and marital communication using an experimental paradigm: The moderating effect of acute sad mood. *Behaviour Research and Therapy*, **48**, 97–105. doi:10.1016/j.brat.2009.09.013

Renken B., Egeland B., Marvinney D., Mangelsdorf S., & Sroufe L.A. (1989). Early childhood antecedents of aggression and passive-withdrawal in early elementary school. *Journal of Personality*, **57**, 257–281. doi:10.1111/j.1467-6494.1989.tb00483.x

Rimé B. (2009). Emotion elicits the social sharing of emotion: Theory and empirical review. *Emotion Review*, **1**, 60–85. doi:10.1177/1754073908097189

Rose A.J. (2002). Co-rumination in the friendships of girls and boys. *Child Development*, **73**, 1830–1843. doi:10.1111/1467-8624.00509

Rubin K.H., Hastings P., Chen X., Stewart S., & McNichol K. (1998). Intrapersonal and maternal correlates of aggression, conflict, and externalizing problems in toddlers. *Child Development*, **69**, 1614–1629. doi:10.1111/j.1467-8624.1998.tb06180.x

Sanders W., Zeman J., Poon J., & Miller R. (2015). Child regulation of negative emotions and depressive symptoms: The moderating role of parental emotion socialization. *Journal of Child and Family Studies*, **24**, 402–415. doi:10.1007/s10826-013-9850-y

Shiota M.N., & Levenson R.W. (2009). Effects of aging on experimentally instructed detached reappraisal, positive reappraisal, and emotional behavior suppression. *Psychology and Aging*, **24**, 890–900. doi:10.1037/a0017896

Wegner D.M., & Gold D.B. (1995). Fanning old flames: Emotional and cognitive effects of suppressing thoughts of a past relationship. *Journal of Personality and Social Psychology*, **68**, 782–792. doi:10.1037/0022-3514.68.5.782

Wegner D.M., Broome A., & Blumberg S.J. (1997). Ironic effects of trying to relax under stress. *Behaviour Research and Therapy*, **35**, 11–21. doi:10.1016/S0005-7967(96)00078-2

Williams W.C., Morelli S.A., Ong D.C., & Zaki J. (2018). Interpersonal emotion regulation: Implications for affiliation, perceived support, relationships, and well-being. *Journal of Personality and Social Psychology*, **115**, 224–254. doi:10.1037/pspi0000132

Yap M.B.H., Allen N.B., & Ladouceur C.D. (2008). Maternal socialization of positive affect: The impact of invalidation on adolescent emotion regulation and depressive symptomatology. *Child Development*, **79**, 1415–1431. doi:10.1111/j.1467-8624.2008.01196.x

Zaki J., & Williams W.C. (2013). Interpersonal emotion regulation. *Emotion*, **13**, 803–810. doi:10.1037/a0033839

Cite this article: Barthel AL, Hay A, Doan SN, Hofmann SG (2018). Interpersonal Emotion Regulation: A Review of Social and Developmental Components. *Behaviour Change* **35**, 203–216. https://doi.org/10.1017/bec.2018.19

https://doi.org/10.1017/bec.2018.19 Published online by Cambridge University Press