Are we Really Getting Better? Lifespan Differences in Emotion Regulatory Ability from the Perspective of Developmental Functionalism

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Despite assertions that emotion regulation improves with age, evidence objectively testing this claim is uncommon. In this article, we briefly review data relevant to this important lifespan thesis, arguing that we are nearing the limits of the insights we can gain with cross-sectional, self-report data; designs in which regulatory skills are objectively assessed are needed. Next, we summarize *developmental functionalism*, a framework that makes specific predictions regarding the types of regulation that might be expected to improve (and decline) across the adult lifespan. This view suggests that while skills based in developmentally-acquired knowledge such as situation selection may generally improve with age, skills that rely on capacities that decline (e.g., executive processing) may show age-linked decrements. Finally, we present early data from a study testing aspects of this model. In the study, 64 adults from across the lifespan were required to enhance and suppress anger and sadness expressions after being randomized to being either warned (experimental) or not warned (control) about the forthcoming tasks. Preliminary analyses examining whether suppressive and enhancement ability improves with age and is consistent for anger and sadness across warned versus non-warned conditions are presented. Implications for the objective study of age differences in emotion regulatory *abilities* and later life adaptation are discussed and directions for future research are given.

Method

Although it is widely accepted that emotion regulatory functioning improves across the adult lifespan (Blanchard-Fields, 2007; Carstensen, Fung, & Charles, 2003; Carstensen & Mikels, 2005; Urry & Gross, 2010), surprisingly little empirical evidence is directly demonstrative of this claim. Broadly speaking, there are three classes of data relevant to this assertion: self-reported affect balance data, self-reported improvements/differences in emotional control, and experimental data in which regulation is objectively assessed. Inferring better regulation based on self-reported emotion is problematic, self-reports on traits or abilities may not correspond with objective assessments (Bonanno, Pat-Horenczyk, & Noll, 2011; Schwartz, Neale, Marco, Shiffman, & Stone, 1999), and studies that objectively assess regulatory performance are scanty. Commentators tend to *infer* superior regulation based on greater positive affect or accept self-reported regulation as evidence of improved *skill*. Insights based on inferential methodologies are limited, and the systematic study of age differences in objectively assessed regulatory performance is a necessary next step in this area.

A recent review of lifespan studies in which emotion regulatory skills were objectively assessed (Consedine & Mauss, 2014) concludes by suggesting that although aging does not appear to bring a unilateral decline in ability, different types of regulatory task show distinct patterns of improvement and decline, and distinct tactics may be employed to accomplish the same regulatory ends (Consedine, 2011a; Emery & Hess, 2011; Magai, Consedine, Krivoshekova, McPherson, & Kudadjie-Gyamfi, 2006). Overall, there may be improvements in forms of emotion regulation linked to positive states (Isaacowitz, Toner, & Neupert, 2009; Phillips, Henry, Hosie, & Milne, 2008; Shiota & Levenson, 2009), social contexts or use of social supports (Akiyama, Antonucci, Takahashi, & Langfahl, 2003; Birditt & Fingerman, 2005; Opitz, Gross, & Urry, 2012), situation selection or modification (Blanchard-Fields, 2007; Blanchard-Fields, Mienaltowski, & Seay, 2007; Charles & Carstensen, 2008; Charles, Piazza, Luong, & Almeida, 2009), and, perhaps, in acceptance (Shallcross, Ford, Floerke, & Mauss, 2013). However, skills relying on executive processes may decline. Expressive suppression, for example, shows few age differences (Emery & Hess, 2011; Kunzmann, Kupperbusch, & Levenson, 2005; Magai, et al., 2006; Phillips, et al., 2008; Shiota & Levenson, 2009) and studies of reappraisal to decrease negative emotion suggest reduced ability (Opitz, Rauch, Terry, & Urry, 2012; Shiota & Levenson, 2009), despite greater use with age (John & Gross, 2004).

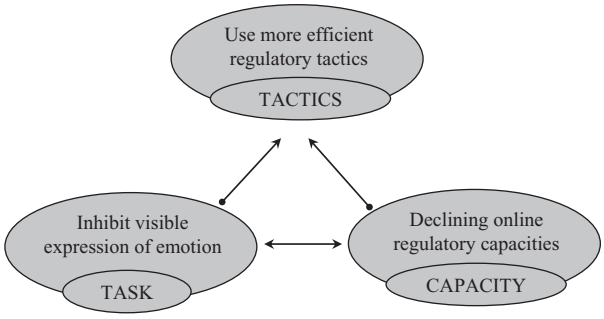

Figure 1. The task, capacity, and tactic framework as applied to changes in emotion regulation across the adult lifespan (adapted from Consedine & Mauss, 2014).

Lifespan differences in emotion regulatory skill – the view from developmental functionalism

Developmental functionalism is a discrete emotions-based approach to the study of emotions (Consedine & Magai, 2003; Consedine, Magai, & Bonanno, 2002; Consedine & Moskowitz, 2007) and emotion regulation (Consedine, 2011a, 2011b; Consedine & Mauss, 2014; Magai, et al., 2006), that pays explicit attention to lifespan development. In this view, changes in emotions and emotion regulation across the lifespan involve the conjoint influences of developmental variation in tasks, capacities and tactics. The approach suggests that understanding emotion regulation requires an examination of developmental variation in regulatory targets (the states, experiences or expressions that we are regulating towards or away from – the "task"), the capacities available to accomplish different forms of regulation (e.g., emotional understanding, executive resources), and the strategies that can be used to accomplish tasks *given* the available resources.

Because different emotion regulatory tasks are based in distinct resource or capacity sets, that have normative trajectories of improvement and decline, it is possible to make predictions regarding the specific regulatory skills that might improve or decline. Developmental functionalism organizes the capacities relevant to emotion regulation – self-awareness, cultural referencing, executive functioning, linguistic ability, knowledge of others, and the like – into two broad categories: basic biological capacities and acquired characteristics (Consedine, 2011a). Predictively then, capacities in which learned improvement seems likely (reflectiveness, awareness of emotion, emotional and situational knowledge) might enhance forms of emotion regulation occurring earlier in the regulatory process (Gross, 1998), while normative declines in somatic resources, energy, and executive capacities may interfere with "online" forms of regulation.

Furthermore, the aging process itself can be seen as creating a pressure to accomplish regulation within the constraints imposed by fluctuating capacities. While some regulatory tasks may become automatized and require fewer resources (Mauss, Bunge, & Gross, 2007; Mauss, Evers, Wilhelm, & Gross, 2006), changes in capacity necessitate changes in both the targets of regulation and the tactics used to attain them. We should expect changes in tactics, with a general increase in the "efficiency" of regulation and a tendency to (a) regulate earlier in the emotion-generation process or (b) use available resources to offset reductions in the capacities needed for online regulation. Below, we present preliminary data from a study conducted within this conceptual framework.

Results

Preliminary data from an ongoing study

In this initial report, 64 (of a target 120) adults grouped into <40 year and 40+ year groups completed regulatory tasks (enhance and suppress expression during anger and sadness-inducing films) after either being warned or not warned regarding the forthcoming tasks. We expected that when participants were warned, performance would be comparable across age groups because the warning would allow the older group to offset declines in online processing by drawing on other resource sets. However, in the absence of a warning, we expected the younger group to demonstrate greater flexibility in expressive regulation.

Two independent raters, blind to condition, coded expressivity relative to a neutral condition in four 50-second videos (angry and sad, enhanced and suppressed) for each participant; scores were coded to indicate greater suppression or enhancement ability. A 2 (age group) x 2 (condition) repeated-measures ANOVA with emotion (anger/sad) and task (suppress/enhance) as within subject variables, and age group and condition as between subject variables was conducted.

Early analyses (see Figure 2) suggest that warned participants were marginally more successful, F (1, 56) = 2.57, $p < .10$, with greater success in modulating anger versus sadness expressions, F (1, 56) = 18.45, $p < .001$, and had better enhancement (versus suppressive) ability, F (1, 56) = 9.11, $p < .05$. While there was no main effect for age or evidence for the expected interaction between age and warning, a trending 2-way interaction between task and warning suggested that warnings promoted better enhancement, but did not alter suppression of expression, F (1, 56) = 3.74, $p < .10$.

This interaction was qualified by 3-way interaction between age, emotion, and warning condition, F (1, 56) = 3.34 $p < .10$; when warned, both younger and older adults were better at regulating anger than sadness. When unwarned, however, older adults were no better at regulating anger than sadness. Finally, there was a 4-way interaction between emotion, task, age and warning, F (1, 56) = 5.03, $p < .05$. Follow-up t-testing indicated that while the older group tended to benefit from a warning when enhancing anger ($p = .068$) the younger group did not. Conversely, the younger adults benefitted from warnings when attempting to enhance sadness ($p < .01$) while the older group did not. There were also additional differences *within* the older group, who were better at enhancing (versus suppressing) sadness ($p < .05$), but better at suppressing anger than sadness ($p < 0.05$).

Discussion, interpretations, and future directions

Although the number of experimental reports examining lifespan differences in emotion regulation has increased

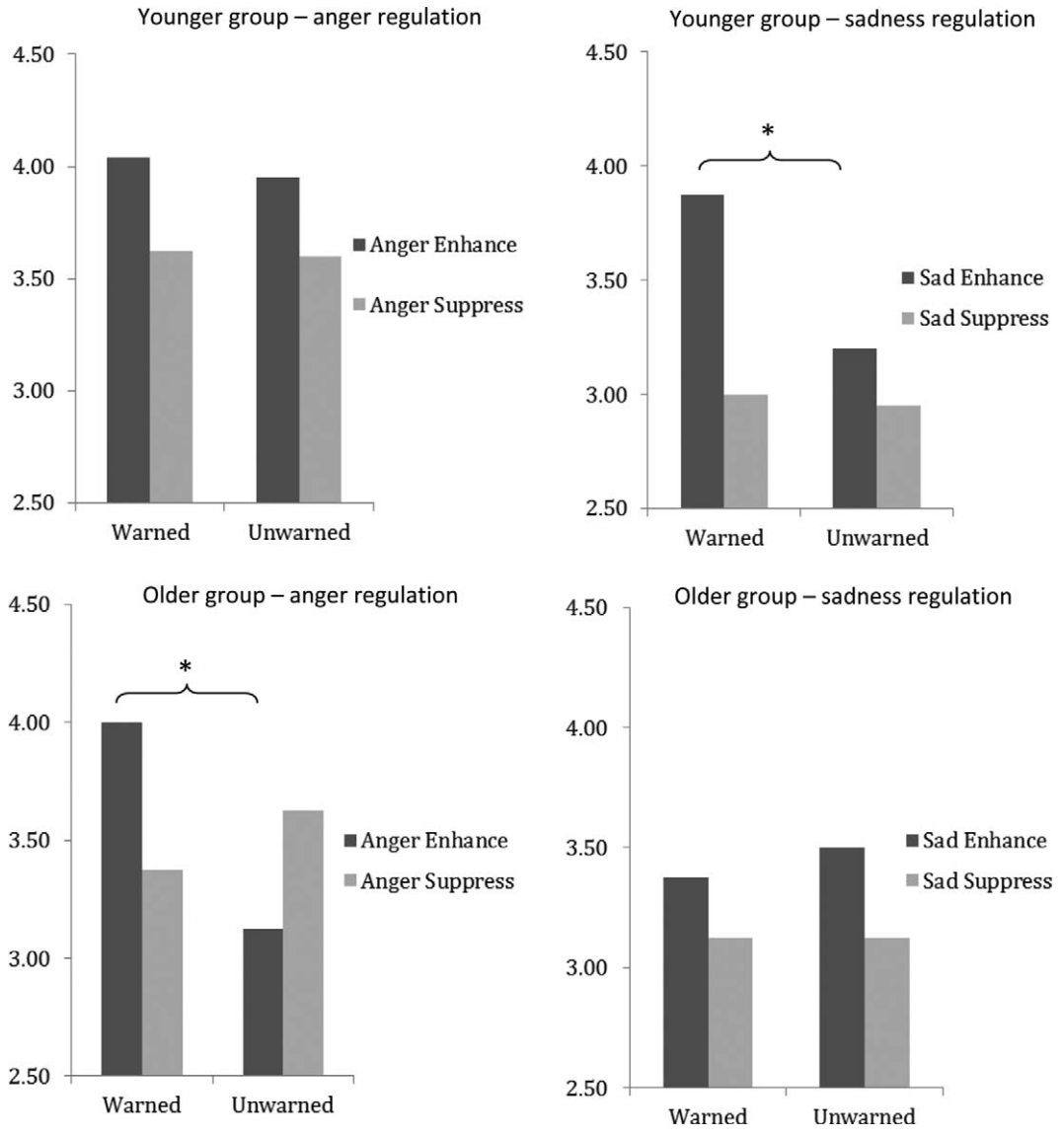

Figure 2. Enhancement and suppression scores for anger and sadness inductions under warned and unwarned conditions in two age groups.

across the past decade, the field remains in its infancy (Consedine, 2011a). Few experimental studies have investigated developmental variation in regulatory targets or attempted to experimentally manipulate which resources participants are able to use in regulation (the warning manipulation). Consistent with prior work, these preliminary analyses found no overall age differences in broad regulatory ability. When participants were warned regarding the upcoming tasks, both younger and older groups performed comparably, being more successful in enhancing (versus suppressing) expressions and being more able to regulate anger (versus sad) expressions. However, warnings appeared to help the older group but not the younger group enhance anger, while the younger group differentially benefited from a warning when seeking to enhance sadness. Consistent with notions that motivational priorities may lead to more socially-facilitative emotion regulation, the older group were better at suppressing anger than sadness, but better at enhancing versus suppressing sadness.

Although these data are clearly preliminary and our analyses underpowered, they provide indications for at least several important possibilities. First, consistent with indications from other lifespan research (see Consedine & Mauss, 2014 for a review), there were no age-related differences in the ability to *suppress* emotional expressions; most effects were in the enhance component of the tasks where the older group performed more poorly when unwarned. While this may reflect issues in coding suppression (i.e., degrees of "less" expression are harder to reliably score than degrees of "more"), it may also be that enhancement is more demanding because it requires the communication of a *specific* target while suppression simply requires the elimination of all expression. Equally, it may be that differences in suppression are masked because current cohorts of older adults are dispositionally more prone to suppress and thus derive benefits from automatization (i.e., reduced resource demand).

Second, it is also notable that it was in the older group performance during the 'naturalistic' (unwarned) condition

that most differences emerged; despite being marginally lower in performance overall, this group was differentially better at (a) suppressing anger and (b) enhancing sadness. Such a pattern may reflect age-related practice and/or prioritizations in reducing the expression of interpersonally-damaging (versus facilitating) expression. It is possible, for example, that the older sample perform more poorly on specific tasks requiring the up-regulation of anger because they must override a tendency to automatically downplay such expressions before they are able to enhance them.

Effective emotion regulation is a critical adaptive capacity in both younger (Bonanno, Papa, Lalande, Westphal, & Coifman, 2004; Westphal, Seivert, & Bonanno, 2010) and older (Carstensen, et al., 2003; Charles & Carstensen, 2010; Consedine, 2011a) adults. Although these preliminary analyses have taken small steps towards identifying specific patterns of change, they raise as many questions as they answer. Does anticipating a regulatory task impact success differently in adults of different ages? If so, for which emotions? Future studies are needed to identify how the targets of emotion regulation vary across the lifespan and how capacities and tactics interact to determine the efficacy with which regulatory targets are attained. Additional questions regarding the links between regulatory skill and adaptive psychological, social and physical health outcomes are also salient and worth further investigation.

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A Commentary on Emotion Regulation across the Life Span

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The current group of studies considers aspects of emotional experience and emotion regulation across populations ranging from adolescents to older adults, covering a diverse set of emotion regulation strategies, situations, and outcomes. These papers provide insight into different facets of emotion regulation, and in so doing highlight the challenges that researchers face when capturing this complex process using a single definition. In their work, they also point to gaps in the literature and future directions for life-span research. Below, I discuss each of these issues and comment on the papers by Tuck et al., Larsen, Liew, Haase, Giunta and Iselin, and Schipper et al., beginning with the challenges we have in the definition of emotion regulation.

Defining emotion regulation. Although different definitions of emotion regulation exist, almost all of them include a complex range of behaviors and experiences that encompass which emotions are felt, and how and when they occur and are expressed. Often, a definition is framed within a time series that describes emotion regulation strategies used immediately before an emotional event is encountered, while the event is occurring, and after the event has passed. Such a depiction organizes emotion regulation around a specific emotion-eliciting event. One concern with such a focus, however, is whether pre-existing factors, such as personality traits or other situational variables, belong in this definition. Emotional experiences do not start and stop, and pre-existing emotional states as well as more enduring characteristics influence how reactive people are when encountering emotion-eliciting stimuli. Two papers from this series discuss such factors.

Tuck and colleagues investigate the importance of knowledge about an emotional event before it occurs. They find that warning participants of the type of emotion-eliciting stimuli that will be shown leads to anger enhancement among older adults and sadness enhancement among younger adults. In addition to illustrating the importance of foreknowledge about the stimuli, they further discuss the role of dispositional traits. They consider how suppression may be a dispositional tendency that is generally greater among older adults, and thus will influence their performance on this emotion regulation strategy. By investigating the key role that foreknowledge plays when processing emotional stimuli as well as the potential cohort differences in trait characteristics of emotion regulation, Tuck and colleagues highlight the importance of predisposing factors that influence the emotion regulation process. Moreover, understanding how these factors may have differential effects across age groups and types of emotions brings a nuanced, complex approach to emotion regulation research.

The emphasis on individual differences such as personality, emotional intelligence, and other psychosocial measures for predicting emotional states is not new, yet it is unclear how researchers should include these characteristics in definitions of emotion regulation. Should they be portrayed as confounds that need to be controlled, or should they be included as factors that predict successful or unsuccessful emotion regulation? In her review, Larsen discusses the importance of emotional authenticity, focusing on how people understand and interpret their own emotional goals, needs and experiences. She stresses the significance of authenticity in both how people organize their lives to navigate and structure where emotions are experienced (an emotion regulation strategy often referred to as situation selection), and how they acknowledge, accept and act in response to these experiences. This description of emotional authenticity, including the determination of how and when emotions are experienced, parallels many definitions of emotion regulation. Rarely, however, are these dispositional traits included in models of emotion regulation in life-span research. Larsen's work presents a notable exception to most models.

More than up or down-regulation. Perhaps studies of emotion regulation often ignore dispositional traits because they focus on the dynamic modulation of emotional states. Studies of age differences in emotion regulation often examine movement of emotional states, either by up-regulating or down-regulating positive and negative affect. The dominance of this model makes sense earlier in the life span, when younger children lack the cognitive capacities for other emotion regulation strategies, such as planning activities that allow them to navigate their environment to control the types of emotions they have, and when they experience them. As a result, researchers focus on emotional reactivity and recovery, such as how likely children are to become distressed and their response to an upsetting event. With further cognitive development, older children are more capable of anticipating emotional states and engaging in antecedent strategies. Studies of older children's emotion regulation, however, often continue to focus primarily on stress reactivity, in both naturalistic studies using daily sampling and laboratory studies capturing reactions to experimental stimuli. Liew avoids this common trap in his study. He incorporates not only the importance of predisposing factors as mentioned before (in his case parental control), but examines emotion regulation strategies necessary to successfully avoid unpleasant outcomes in his studies. The capabilities necessary to anticipate and regulate the environment – executive functioning emotional control – allow adolescents to attain their personal goals. Liew measures these goals of adaptive functioning, such as academic success, as indicators of successful emotion regulation.

When studying people across adulthood, researchers focus on both antecedent-focused and response-focused

strategies, and many investigators make different age-related predictions dependent on the type of strategies examined. Strength and Vulnerability Integration, for example, posits that older adults more often engage in strategies that allow them to avoid or limit their exposure to negative experiences altogether, and only when people are placed in situations of sustained arousal do age-related benefits attenuate or disappear completely (Charles, 2010; Charles & Piazza, 2009).

The distinction, then, between antecedent versus response-focused strategies, is important in predicting age differences in emotion regulation abilities. Yet, definitions of emotion regulation often narrow to either actively down-regulating or up-regulating subjective emotional states. As a result, important information about age differences in emotional experience is lost. For example, one study examining goals to regulate emotions found that older age was related to greater desire to maintain positive affective states (Riediger, Schmiedek, Wagner, & Lindenberg, 2009). Should this be seen as successful emotion regulation, as indicated by the higher levels of well-being reported by the older adults in this study? Or, should we interpret these findings as not relevant to emotion regulation, because the respondents did not encounter a problem where modulation of emotion was necessary? Moreover, how can we further study the extent to which the older adults engaged in actions that allowed them to experience desired emotion-states, or whether they were simply fortunate to be in such salubrious surroundings?

More emphasis on socio-cultural context of emotion regulation. Researchers often discuss how adults shape their social networks consistent with their emotional goals (e.g., Carstensen, 1992, 2006), but rarely do researchers discuss how people at younger ages shape their social network in ways that influence their emotional well-being. Haase emphasizes the importance of interactional processes in her review. She describes how some of our strongest emotions are experienced within social situations, and emotion regulation strategies frequently include dynamic interactions with others. She provides specific examples of interaction patterns that serve as emotion regulation indicators, such as how quickly husbands and wives down-regulate negative emotions at the time they are experienced, and assesses their success with specific social outcomes (i.e., relationship satisfaction). This is an exciting new envisioning of emotion regulation that can be examined across different age groups.

In further probing the powerful influence of others in emotion regulation processes, Giunta and Iselin's paper focuses on the influence of parental behavior on the emotion regulation abilities of adolescents. Importantly, however, they describe how the cultural context – specifically social norms – influences the strength of these effects. They find that negative parental behavior (parental control) is related to poorer emotion regulation behaviors of their adolescent (dysregulated sadness expression; depressive rumination), which in turn are related to their adolescent's depressive symptoms. They also found, however, that the strength of these associations is related to the cultural norm of parental control. When parental control is more normative in a culture, it has less impact on depressive symptoms, as indicated by the attenuation of the indirect association between parental control and depressive symptoms.

Measuring emotion regulation and its success. Much of this discussion relates to methodology: how do we incorporate (or not) dispositional traits in models of emotion regulation; how do we interpret the same concept (e.g., parental control) in different environments; how do we expand definitions of emotion regulation to include interactive processes. These questions also highlight the difficulty encountered when making comparisons across people who rely on different types of emotion regulation strategies. For example, imagine two people: one who carefully navigates his or her environment to avoid potential negative situations, and as a result experiences high levels of overall well-being with few fluctuations in negative affect. The other person takes no preemptive emotion regulation measures, and encounters daily stressors often. However, this person reacts less strongly to these stressors when they occur than does the first individual. What, if anything, can we say about overall differences in emotion regulation? And how often do people flexibly move across different types of emotion regulation strategies (e.g., Bonanno & Burton, 2013), and how does this flexibility vary across age groups?

Comparison across groups of people who engage in such different emotion regulation strategies is further complicated by variations in methods of measuring successful emotion regulation. For those examining antecedent strategies, perhaps the number of daily stressors (or reported events) may be a guide, although these outcomes are complicated by the opportunities and challenges afforded by the environment. Studies of reactivity and recovery, in contrast, focus on the time needed for physiological arousal or subjective state to return to a baseline measure. These different measures of emotion regulation raise questions concerning what are the most important indicators of emotion regulation, and how best to capture them. On a related note, what are the important outcomes? These papers explore the range of emotion regulation literature, in studies that examine diverse outcomes such as depressive symptoms, facial expressions, academic performance, relationship satisfaction, emotional negativity, and other well-being indicators. Perhaps it is time for us to examine how strategies generalize, or not, to these diverse outcomes.

Studying a range of outcomes inspires questions regarding *what* is the best indicator of emotion regulation. Schipper and colleagues present findings that raise the intriguing question of *who* is the best judge of these outcomes. In their study, they had adolescents and their parents rate the adolescent's functioning using the Strengths and Difficulties Questionnaire (SDQ), a standardized measure that provides both an overall score of emotional and behavioral functioning and separate subscales for five areas of psychosocial functioning. They found that although the overall score on the SDQ did not differ between the adolescents and their parent-informants, the pairs were discrepant on three subscale ratings. Specifically, the parents rated their adolescent higher on emotional and conduct problems that did the adolescents, and the adolescents rated their hyperactivity as higher than did their parents. Given such differences, these results raise questions regarding whose reports we weight more heavily, and whose are more predictive of later problems across a wide range of individual and social areas.

Conclusion. The current set of studies produces interesting results and raises intriguing questions regarding emotion regulation across the life span. Definitions of

emotion regulation are necessarily expansive, but these encompassing definitions present challenges with regard to how to incorporate the many facets of emotion regulation into a single model, and how to compare findings across different strategies. The papers also provide direction for our future research. They point to factors that influence emotional functioning and emotional experience that should be incorporated in studies of emotion regulation. They highlight the need to become more aware of the sociocultural influences that surround these processes, and they point to the challenges of integrating different indicators and outcomes for the complex set of processes that fall under the term emotion regulation.

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The Elusiveness of a Life-Span Model of Emotion Regulation

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The articles published in this special issue offer an excellent characterization of the research questions and approaches that psychologists apply to the study of emotion regulation across the life span. Each of the articles addresses important inputs into the regulation of emotion, from the influence of parents and peers on the regulatory capacities of children and adolescents, to the roles of social norms and marriage in adulthood, to the effects of age on the regulation of discrete emotions.

Di Giunta and Iselin illustrate, for example, how emotional functioning in childhood relies heavily on parents and caretakers. Children are explicitly taught basic strategies that lay the groundwork for healthy emotional development. In western cultures, these primary strategies involve teaching children to up-regulate positive and down-regulate negative emotional states. The failure to do so can have detrimental consequences for well-being, particularly in societies that value these strategies. Liew examines how parental autonomy support shapes children's capacity for emotion regulation among Chinese immigrants, challenging the belief that Chinese parenting is restrictive and controlling. Rather, he maintains, parental guidance of emotion regulation reflects cultural norms and sets the foundation for children's healthy academic development.

Schipper, Nitkowski, Koglin, and Petermann address the transitional period of adolescence, in which emotion regulation becomes increasingly self-initiated while simultaneously influenced by peers. During adolescence, regulation takes on a new level of complexity as individuals learn to regulate emotions in the service of establishing and maintaining social connections outside of the family, learning how to up-regulate negative (expressing sadness to solicit comfort from friends) and down-regulate positive (e.g., downplaying receiving an award to fit in with friends) emotions. The departure from parental guidance and a prioritization of peer acceptance may explain why the emotional lives of adolescents can be particularly unstable. Schipper et al.'s findings about contrahedonic motivations and the difficulty parents have in inferring emotional states of their adolescent children complement those from a recent report by Michaela Reidiger and colleagues based on experience sampling spanning adolescence to very old age (Reidiger, Schmiedek, Wagner & Lindenberger, 2009). When paged, participants were asked what they were feeling and whether they wanted to increase those feelings or decrease them. Among the adults, the predicted patterns were observed. When positive emotions were reported, participants wanted to maintain or enhance them; when negative emotions were experienced, participants expressed a motive to contain or diminish them. Adolescents, however, presented an important exception: The typical response to negative emotions was the desire to heighten the negative experience. These findings are consistent with Larsen's discussion of authenticity. Larsen's emphasis on authenticity challenges the assumption that effectively down-regulating negative experience is the inevitable "appropriate" response, an observation that may be particularly true of adolescents.

Haase's review suggests that emotion regulation in intimate relationships raises additional challenges. In the context of marriage, the ability to infer sometimes subtle cues and up-regulate or down-regulate one's own emotions accordingly is critical. Indeed, marital well-being, at least in modern western cultures, appears to rest fundamentally on partners' abilities to manage their own emotions while simultaneously attending to those of their significant others.

Tuck et al. question the widely held view that emotion regulation improves with age. By isolating an emotional elicitor (the need to up- or down-regulate either anger or sadness) and by the explicitness of the regulatory demand, they observe more age group similarities than differences. As they acknowledge, limitations in statistical power render their findings highly tentative. However, their theoretical framework and methodological approach offer readers a view of the types of hypothess researchers test and how they test them when investigating the capacity for emotion regulation.

Individually, each of the papers raises important questions and issues. Together, the set also illustrates the disjointed conceptualization of emotion regulation evident in the broader field of life-span development. Not only are the research traditions and methods adopted by those studying child, adolescent and adult development different from one another, the implicit assumptions about emotion and related questions vary by life stage. Research on regulation in young children tends to focus on parental styles and relationships, thereby placing the emphasis squarely in social context. When studying increasingly older age groups, however, researchers focus on individuals, often on emotion regulation in the laboratory devoid of social context. Indeed, Tuck et al. maintain that this is the only way to really know whether or not emotion regulation improves with age.

The tacit assumption is that emotion regulation at the beginning of life is externally supported and gradually moves inward to the point where regulation can be studied outside of social and cultural contexts. In all likelihood, the assumption that regulation is externally resourced in early life and grows increasingly self-initiated is, at least

partially, true. Unable to coordinate movement and lacking neural pathways that allow them to quell emotional bursts, infants rely on touch and the vocal expressions of caregivers to regulate their emotions. Shortly after children begin to speak, researchers begin to study explicit strategies that individuals employ once an emotion has been elicited. Steadily, researchers move away from consideration of social context, asking whether individual differences in rumination styles place people at risk for depression, and whether the contexts in which people find themselves stimulate ruminative thinking or fail to offer opportunities for distraction.

In adulthood, a strong research tradition has developed, illustrated by Tuck et al., to study emotional regulation in the laboratory by eliciting specific emotions and observing the response as indexed by facial expressions, subjective reports and physiological reactivity. This research tradition tacitly downplays environmental contexts. The approach has methodological appeal. Yet, as Campos and colleagues (2011) have eloquently argued, it is unlikely that emotions are ever unregulated. Rather, emotion regulation is a dynamic, ongoing process. Indeed, emotional *experience* is arguably the best measure of the effectiveness of emotion regulation in daily life, and there is considerable evidence – both cross-sectional and longitudinal using a range of methods – that emotional experience improves with age (Carstensen, Pasupathi, Mayr, & Nesselroade, 2000; Carstensen et al., 2011; Charles, Reynolds, & Gatz, 2001; Grühn, Kotter-Grühn, & Röcke, 2010; Stone, Schwartz, Broderick, & Deaton, 2010; Mroczek & Kolarz, 1998).

Left unexamined, differences in theoretical and methodological approaches can also inadvertently obscure the ways that people actually regulate emotions, and lead investigators to overlook potential continuities and discontinuities across the life span. Through the lens of socioemotional selectivity theory (SST; Carstensen, 2006), *selection* is seen as a key emotion regulation strategy that presents itself very early in life – six-month-old infants bury their heads in the shoulders of caregivers when strangers approach, for example – and represents an increasingly effective and common regulatory strategy throughout life.

To elaborate, the SST life-span theory of motivation maintains that socioemotional goals change systematically as a function of time horizons. When time horizons are long and nebulous, as they typically are in youth, people engage in exploration and seek to acquire knowledge in preparation for an uncertain future. As time horizons grow increasingly constrained, people focus more on savoring existing relationships and enhancing emotional meaning. These shifting time horizons shape our social environments and their associated emotion regulatory demands. Indeed, the social world changes systematically with age (Wrzus, Hanel, Wagner, & Neyer, 2013) in ways suggestive of active pruning of networks such that they increasingly comprise well-known and emotionally significant partners (Lang & Carstensen, 2002).

Early adulthood ushers in a burgeoning number of relationships that promise opportunities for learning and expansion of the social world. Large and diverse networks also demand considerable flexibility and a range of regulatory strategies. Social networks include the widest range of partners at this stage in life; relationships with family and close friends open to include novel acquaintances, professional associates, and eventually intimate relationships. As people move through adulthood, social networks become increasingly exclusive and meaningful; these smaller social networks hold benefits for emotional well-being (English & Carstensen, 2014).

According to SST, the expansion early in life adaptively prepares young people for the long and nebulous futures that they likely face. Chronically pursuing exploration, however, demands emotional risk-taking and can entail anxiety, frustration and anger. Ample research documents the highly emotional quality of adolescence and young adulthood (Larson & Sheeber, 2008). As time horizons shrink, goals change. Emotionally meaningful experiences are prioritized. Theoretically, networks change to reflect changes in goals. Selection is the key regulatory strategy. By focusing on important relationships, selection privileges emotionally meaningful experience and allows for a deepening of close bonds. Social networks that are comprised of emotionally close relationships allow goals to be achieved more effectively. Evidence suggests that older people, compared to their younger counterparts, are more likely to both pursue and realize affective goals (Scheibe, English, Tsai & Carstensen, 2013).

Even though selection is categorized as an antecedent emotion regulatory strategy, it gets relatively little attention in the field of emotion regulation. Yet selectivity serves as a key regulatory strategy across the life span and is arguably the most effective of strategies. When selectivity is effectively deployed, there is no need to suppress facial expressions or down-regulate negative emotions. Young children stay physically close to caretakers in the presence of strangers. Parents explicitly teach selection (Gross & Thompson, 2007) to their children, urging them to interact with people and in situations that make them feel good and to avoid ones that elicit negative emotions. With age, people use selection increasingly frequently. As they enter adulthood, they reliably choose products, activities, and people that help them feel how they want to feel (Tsai, 2007; Sims, Tsai, Koopmann-Holm, Thomas, & Goldstein, 2014). Goals direct cognitive resources. Scores of studies now show that age is associated with selective attention to positive over negative emotional stimuli (Reed, Chan, & Mikels, in press).

As people age and become more adept at selection (in part because they are better at predicting how a certain context will make them feel; e.g., Scheibe, Mata, & Carstensen, 2011), effectiveness of selection in regulating emotional states improves as well. True, selection is not always a viable option and in distressing situations, age may not offer an emotion regulatory advantage. Susan Charles developed an elegant model, Stress and Vulnerability Integration (SAVI) that aims to predict how well older people regulate emotions when they are unable to use selection (Charles, 2010).

As Consedine and Magai (2006) have argued, a full understanding of emotional changes with age requires consideration of distinct emotions and affective states according to their social function. We agree as do other authors in this issue. For example, Di Giunta and Iselin found that the impact of regulating negative emotion on mental well-being is largely shaped by culturally normative parenting practices; in the same vein, Larsen finds that suppression is not harmful to adolescents in the same way it may be for adults. As such, the interpretation and importance of findings examining emotional regulation across the life span vary as a function of social context and motivation.

Relatively poor execution of strategies that are rarely, if ever, used is not as important as understanding the effectiveness of strategies deployed on a regular basis. It may be, for example, that although younger adults often find themselves in situations (e.g., confrontation) that signal the utility of anger (Tamir & Ford, 2012), through selection older adults circumvent similar situations (Blanchard-Fields, Mienaltowsi, & Seay, 2007).

Despite the conceptual and methodological limitations ever present in the study of emotional development, the work described in this bulletin offers a variety of insightful perspectives on the course of emotion regulation ranging across naturalistic and experimental settings. Notably, one commonality tying together these diverse approaches is the insight that how people regulate their emotions is largely determined by their socioemotional goals. Integrating socioemotional goals into models of emotion regulation across the life span raises questions about how we conceptualize and operationalize emotion regulation and emotional experience.

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