Affect-Regulation Motivation

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Abstract

Affect-regulation motivation refers to how people want to influence their affective experiences. It is typically prohedonic, but can at times also be directed at the enhancement or maintenance of negative, or the dampening of positive affect. This article reviews the current state of research on the following questions: Why are psychologically healthy people occasionally inclined to seek negative, or to dampen positive affective experiences? Does such contra-hedonic motivation require cognitive resources? Are there individual differences in pro- and contra-hedonic affect-regulation motivation? What roles do the individual's age, personality disposition, or cultural background play in this respect?

Affective states – such as feeling angry, downcast, excited, or content – are an integral aspect of human experience. They direct people's attention, guide judgments and behaviors, and provide, when expressed, communicative signals to others that can regulate social interactions. Affective states thus serve essential functions. Being able to influence – or regulate – the experience and expression of affective states, however, is equally important. Terminating negative affective states once their informational, behavioral, or communicative functions have been fulfilled, for example, is necessary for healthy psychological functioning (Larsen, 2000). In addition, many life tasks – from forming and maintaining social relations to successfully pursuing a career – require the ability to influence the intensity and expression of positive and negative affective experiences.

For a long time, the assumption prevailed that affect-regulation efforts are invariably motivated by a desire to enhance the individual's affective well-being. In the past two decades, however, awareness has grown that this is not always the case. Studying affect-regulation motivation can thus contribute to a better understanding of individual differences and within-person fluctuations in affective experiences.

This article reviews the current state of research on affectregulation motivation, after first clarifying some basic definitional issues.

Some Definitional Issues

Affect, Emotion, and Mood

The term affect is used in this article as an overarching category that subsumes emotions and moods (Gross and Thompson, 2007). Both emotions and moods are experiential entities that are characterized by inner feelings, accompanying physiological processes, and that can be outwardly expressed. While emotions are typically elicited by specific events in the individual's environment or by thoughts about those events, moods tend to have less specific causes and to be related more to the individuals' internal resource capacity (e.g., their level of fatigue). In addition, emotions tend to be more intense than moods, but more short-lived, and to have clearer onset and offset points (e.g., Larsen, 2000). Despite these differences, boundaries between emotions and moods are not clear-cut.

This can make empirical differentiation difficult, particularly in studies that assess naturally occurring affective experiences. This explains why many of the studies reviewed below were not able to distinguish between emotions and moods explicitly. In these cases, the umbrella term affective experience will be used.

Pro- and Contra-Hedonic Affect-Regulation Motivation

Affect regulation refers to ways individuals influence the experience and expression of affective states. It often occurs without awareness and intentional effort, but can also be deliberately initiated by the individual. Affect regulation can take many different routes. Avoiding affect-eliciting situations, reappraising their significance, or suppressing outward expressions of inner experiences are but a few examples. Irrespective of their specific manifestation, however, all of these regulatory behaviors are preceded and fundamentally shaped by motivational processes.

Affect-regulation motivation determines the direction of a given affect-regulation effort. It can be directed at the maintenance, enhancement, or dampening of affective experiences and expressions. In everyday life, most people likely do not contemplate their affect-regulation motivation much, if at all. Research has shown, however, that when asked to do so, they can report on it (e.g., Mares et al., 2008; Riediger et al., 2009; Wood et al., 2009). Affect-regulation motivation thus seems to be at least partly accessible to individuals' introspection.

Historically, the assumption long prevailed that motivation of psychologically healthy people in general, and their affect-regulation motivation in particular, are guided by a prohedonic principle. That is, psychologically healthy people were expected to be generally motivated to enhance or maintain positive (pleasant) affective states, and to avoid or dampen negative (unpleasant) affective states (for a discussion of relevant historical positions, see, e.g., Erber and Wang Erber, 2000). Contra-hedonic tendencies were assumed to occur only in mental pathology. Indeed, psychological disorders can involve such symptoms as the deliberate inflicting of injury and pain upon oneself, or a pathological desire to maintain or enhance negative affective states. Recently, however, awareness has grown that contra-hedonic motivation can also occur in nonclinical populations. Although prohedonic affect-regulation motivation is in fact predominant in psychologically healthy individuals, there can also be occasional exceptions.

Empirical evidence stems, for example, from an experience-sampling study with participants ranging in age from adolescence to old adulthood (Riediger et al., 2009). Participants reported, on average 54 times in 3 weeks, whether they currently wanted to dampen, enhance, or maintain each of six positive and negative affect facets (i.e., feeling angry, downcast, anxious, interested, joyful, and content). The majority of reported affect-regulation motivations were indeed prohedonic, that is, directed at the enhancement or maintenance of positive affect or the dampening of negative affect. Interestingly, however, there were also occasions when participants reported wanting to maintain or enhance negative affect or to dampen positive affect. Across the entire sample, such contra-hedonic motivations were reported, on average, in 15% of the measurement occasions.

Everyday observation also confirms that people are occasionally inclined to forego positive feelings, or to seek or maintain negative feelings. Examples include listening to plaintive music to indulge in sadness, seeking to put oneself into a somber mood before delivering bad news, or trying to work up a state of anger before attempting to assert one's interests in an argument.

The purpose of this article is to review the current state of research on affect-regulation motivation in nonclinical populations. The first part zeros in on the phenomenon of contra-hedonic motivation. It addresses the question why psychologically healthy people might occasionally be inclined to seek negative, or to dampen positive affective experiences, and summarizes research on cognitive resource demands of such contra-hedonic motivation. The second part focuses on individual differences in pro- and contra-hedonic affect-regulation motivation. Evidence of the respective role of individuals' age, traits (personality, self-esteem), and cultural context is reviewed. This article concludes with an outlook on open research questions that need to be resolved in future research.

Possible Reasons for Contra-Hedonic Motivation

Two complimentary explanations for occurrences of contrahedonic motivation in nonclinical populations are currently discussed. One perspective argues that contra-hedonic motivation may arise when positive experiences accompany apparently negative affective states, that is, when the affective episode is mixed. A complementary account proceeds from the idea that contra-hedonic motivation may occur in situations in which negative affect is useful, or positive affect disadvantageous for the individual. These two positions will be referred to as the mixed-affect and instrumental-affect perspectives below.

The Mixed-Affect Perspective

Affective experiences are not always unequivocally positive or negative in nature. Occasionally, affective episodes may entail a blend of various affective states of opposing valence. For example, people can experience sadness and happiness simultaneously, such as during nostalgic reminiscence; or fear and excitement, such as when engaging in risky activities. Other

combinations of affective states of opposing valence can cooccur as well (e.g., disgust and amusement). It is also possible that a given affective state is not accompanied, but followed by a state of opposing valence (e.g., elation followed by embarrassment). The mixed-affect perspective proposes that anticipated or actual mixed affect might motivate individuals to seek or maintain an apparently negative affective state because they associate enjoyable or otherwise positive aspects with it, or, vice versa, to dampen an apparently positive affective state because they associate unpleasant aspects with it as well.

Evidence in line with this perspective stems from the experience-sampling study mentioned above (Riediger et al., 2009). Participants in this study were more likely to report the contra-hedonic motivation of wanting to maintain their momentary negative affect in situations where they experienced mixed affective states, that is, simultaneous positive and negative affect that were both more intense than the individual's respective averages.

Further support comes from a series of studies reported by Andrade and Cohen (2007). These studies showed that students who liked to watch horror movies were more likely to experience both negative and positive affect while watching, whereas persons who avoided horror movies tended to only experience negative affect. Interestingly, the pattern and intensity of negative affect (e.g., fear) while watching did not differ between persons who liked to watch and those who avoided horror movies. This speaks against the possibility that individuals who look for apparently aversive experiences appraise them in a more positive manner. It has also been argued that people may seek negative experiences because of the relief or pleasure that follow in the aftermath. This explanation, however, did not hold in the studies by Andrade and Cohen (2007), where such feelings of relief were greatest in participants who avoided these types of films. Instead, these studies suggest that the apparently contra-hedonic motivation of wanting to view horror movies is associated with positive affective experiences that accompany fear when watching.

The Instrumental-Affect Perspective

The instrumental-affect account of contra-hedonic motivation posits that affective states can be helpful or harmful for an individual's goals, depending on the particular context. This idea is commensurate with evolutionary theories that propose that emotions evolved as multicomponential response systems because they prepared for the fast execution of adaptive behaviors, communicated important information to conspecifics, and thus enhanced chances of survival. A classic illustration of this idea is the instrumental value of fear in threatening situations. The experience of fear, along with the accompanying physiological and cognitive processes - such as enhanced autonomic arousal and attentional narrowing prepares the individual for rapid engagement in adaptive action, such as flight. The expression of fear furthermore signals danger to others, who can then also get set to seek safety quickly. Fear can thus be helpful in situations that require the avoidance of threats or dangers. In other contexts, however, fear can be detrimental to the individual's interests. When desired objects are available in the absence of immediate danger, for

example, fear might hamper engagement in the approach behavior that would be necessary to obtain the desired item.

Affective states have retained their context-dependent utility until today. Although they may rarely be relevant for immediate survival anymore, they can nevertheless have implications for the attainment of an individual's goals. Central to explanations of contra-hedonic motivations from instrumental-affect perspective is the observation that there can be situations where negative affect is instrumental for, and positive affect detrimental to an individual's goals. Anger, for example, can help individuals to assert their interests in an interpersonal confrontation; and expressing guilt or shame after wrongdoing can help individuals to be more favorably perceived and better liked by other persons. Joy, on the other hand, can be inappropriate when delivering bad news. Affective states have also been associated with how individuals process information. Although positive affect can facilitate performance in tasks that require creativity, flexibility, or holistically focusing on the overall picture, it is less helpful for chores that require accurate and analytic processing of complex details, or the application of intricate rules. The latter tasks are facilitated more by negative affect of moderate intensity (e.g., Clore et al., 2001). Instrumental-affect accounts therefore propose that contra-hedonic motivation may derive from people's being (consciously or unconsciously) strategic in seeking affective states that are instrumental in a given context.

Research by Erber and colleagues supports this idea. In various studies, either happy or sad mood was induced in participants who were then led to believe that they were about to work on a task either with a stranger, with their own romantic partner, or alone. Prior to the task, participants indicated whether they preferred to read a humorous, sad, or neutral newspaper story. Anticipation of working on a task together with a stranger (vs expecting to work alone) led to an enhanced preference for mood-incongruent newspaper stories, suggesting that participants were motivated to neutralize the induced positive or negative mood. This was not the case, however, when participants expected to work with their romantic partner (Erber and Wang Erber, 2000).

The authors interpreted these findings by arguing that neutralization of positive affective states can be helpful when interacting with strangers, even though it is contra-hedonic, because it unburdens the individuals from possible distractions by their affective state, and thus frees cognitive capacity to attend to the affordances of the unknown social situation. It also reduces the likelihood of having or displaying socially inappropriate affect, which might otherwise lead to unfavorable evaluations by the unknown interaction partner. In other social contexts, such as when interacting with one's romantic partner, in contrast, attenuating positive affect might not be instrumental and may even be detrimental to the relationship (Erber and Wang Erber, 2000).

Various studies by Tamir and colleagues demonstrated that people might seek negative affect when they expect it to be instrumental for the pursuit of their current goals. Participants in two studies reported by Tamir and Ford (2012a), for example, were assigned either a confrontational or a collaboration goal in an interpersonal negotiation task. Participants with the goal to confront (vs collaborate with) their negotiation partner showed a stronger preference

for anger-inducing activities in anticipation of the negotiation (e.g., were more likely to prefer recalling past experiences in which they felt angry). Further studies also demonstrated similar contra-hedonic tendencies in other task contexts. For example, enhanced preferences for fearinducing activities were observed when participants expected to play a computer game in which their goal was to avoid threatening elements (Tamir and Ford, 2009), whereas enhanced preferences for anger-inducing choices were observed when participants expected to play a computer game in which the task was to shoot virtual enemies (Tamir et al., 2008). The authors argued that participants sought negative affect in these studies because of its instrumental value for the pursuit of their assigned goals. For example, in the negotiation studies (Tamir and Ford, 2012a), participants who were set the task of confrontation (vs collaboration) with their negotiation partner were more likely to expect anger to be helpful in their negotiations. Furthermore, selection of anger-inducing activities did indeed lead to more intense feelings of anger during the negotiation, which in turn was associated with better negotiation outcomes in the confrontation condition (similar findings were observed in other task contexts as well, Tamir et al., 2008).

Recent evidence further suggests that knowing when negative affective experiences can be useful for, and when positive experiences can be detrimental to one's goals, is not only associated with better specific goal progress, but also with higher levels of emotional intelligence (Ford and Tamir, 2012) and better psychological adaptation more generally. Student participants rated the extent to which they believed feeling anger or happiness would be useful for them in various confrontational and collaborative situations. The more participants perceived anger as being potentially useful in confrontation situations, the better their psychological well-being, life satisfaction, perceived social support, and subjective health was, and the higher their academic achievement in college was. In contrast, the more participants regarded happiness as potentially helpful in confrontations, the lower they scored on several of these indicators of adaptive functioning. This association pattern was reversed (though overall weaker) for perceptions of useful emotions in collaboration situations (Tamir and Ford, 2012b).

Cognitive Demands of Contra-Hedonic Motivation

Research in the tradition of the instrumental-affect perspective demonstrates that contra-hedonic motivation can be helpful for the individual. This, however, appears to demand cognitive resources. In the experience-sampling study by Riediger et al. (2011), participants not only reported their momentary affect-regulation motivation, but also completed two trials of a working-memory task at each measurement occasion. While prohedonic motivation was only weakly associated with within-person fluctuations in working-memory performance, the association of contra-hedonic motivation and working-memory performance was substantially more pronounced: The more contra-hedonic motivation participants reported, the lower their momentary working-memory performance was. These effects of contra-hedonic motivation

on working-memory performance could not be attributed to lack of effort, or to differences in other individual or situational characteristics.

The authors argued that the reason for these findings could be due to the effort required to overcome one's prevailing prohedonic orientation, which necessitates the allocation of capacity. Consequently, the capacity remaining for the simultaneous processing of another resource-intensive task – storing and manipulating information in working memory – would be reduced in situations with contra-hedonic motivation. Prohedonic motivation, which is the predominant orientation in psychologically healthy individuals, in contrast, might proceed more automatically in comparison and hence require fewer cognitive resources.

Individual Differences in Pro- and Contra-Hedonic Affect-Regulation Motivation

Affect-regulation motivation not only varies across situations, as discussed so far, but also differs substantially between individuals. Below, research findings are summarized that elucidate the roles that people's age, their personality disposition, and their cultural background play in this respect.

Age-Related Differences

Evidence abounds that day-to-day affective experiences differ between individuals from different age groups. Adolescents, for example, typically experience relatively more affective turmoil and relatively more frequent negative affective states than adults. Across adulthood, typical patterns of age-related differences also emerge. Healthy older adults characteristically report more stable and more positive affective states in their everyday lives than younger adult age groups do, and affective well-being appears to decline only at the very end of life (for a review of available evidence, see Riediger and Rauers, 2014).

The psychological mechanisms underlying these age-related differences in affective experiences are not yet fully understood. It has been argued, however, that some of these differences might be brought about by variations in people's affect-regulation motivation (Riediger et al., 2009). According to this argumentation, part of the negative affectivity that is characteristic of adolescence, and part of the positive affectivity that is characteristic of old age, may be actively sought and maintained by the individual, either deliberately or unconsciously.

Empirical evidence supports this assumption. Riediger et al. (2009, 2014), for example, investigated affect-regulation motivation in the everyday lives of participants ranging in age from 12 to 86 years. Contra-hedonic motivation was considerably less prevalent than prohedonic motivation in all investigated age groups. There were, however, pronounced age differences. Adolescents reported contra-hedonic motivation most frequently, namely, in about 25% of the measurement occasions. There was a steep decrease in the prevalence of contra-hedonic motivation between the adolescent and the young adult participants, and a further decline throughout the adult subsamples into old age.

Prohedonic motivation, in contrast, showed an opposite prevalence pattern. It was least prevalent among adolescent and young adult participants, and most prevalent in later adulthood.

A corresponding picture of age-related differences emerged in a study where 18- to 82-year-old participants reported how much they sought or avoided several affective experiences in their everyday lives, and how much they regarded these experiences as useful or valuable (Mares et al., 2008). Again, preferences for negative affective experiences were most pronounced among the youngest participants, whereas preferences for positive affect and emotional stability increased throughout adulthood. Further empirical support derives from studies on age differences in entertainment use. For example, younger adults were more likely than older adults to report that they liked movies that elicit sadness or fear, while older adults were more likely to prefer heartwarming movies (Bartsch, 2012; Mares et al., 2008).

What might be the reasons for these age differences in affect-regulation motivation? The relatively high prevalence of prohedonic motivation in older adulthood is in line with the theoretical claim that the shrinking horizon of time-to-live shifts older people's motivations toward wanting to maximize their affective well-being in the here and now (Carstensen et al., 2003). The age-related increase in prohedonic motivation might thus be instrumental for the attainment of older adults' affective goals. Analogously, the relatively higher prevalence of contra-hedonic motivation in adolescence might be helpful for tackling the developmental tasks of that life phase. Repudiating prevailing hedonic conventions, for example, might put adolescents in situations in which they have to deal with negative emotional experiences. This, in turn, might help them to establish emotional autonomy from their parents, affirm a sense of maturity, or refine their self-regulatory competencies. It might also be a means to explore the range and depths of possible experiences, which could help adolescents on their way toward developing their own sense of identity (Riediger et al., 2009).

The mixed-affect perspective can also contribute to an understanding of age-related differences in affect-regulation motivations. The studies by Riediger and colleagues, for example, showed pronounced age-related differences in the prevalence of mixed-affective experiences that followed the same pattern as those of contra-hedonic motivation: Both mixed affective experiences and contra-hedonic motivation were most frequent among adolescents, and least prevalent among older adults (Riediger et al., 2009, 2014). Importantly, this pattern of age-related differences was not restricted to participants' self-report, but was also reflected in implicit representations of affect valence as assessed with implicit association tests. Compared to adults from various age groups, adolescents implicitly associated positive affect least distinctively with pleasantness (vs unpleasantness) and unhappiness least distinctively with unpleasantness (vs pleasantness). Furthermore, the less differentiated people's mental representations of affect valence were, the more likely they were to report mixed affect and contra-hedonic motivation in their everyday lives (Riediger et al., 2014).

Trait-Related Differences

Evidence of trait-related differences in people's affectregulation motivation has been obtained most systematically with regard to people's personality and self-esteem.

Personality

The two personality traits that are currently best researched in this respect are extraversion and neuroticism. Highly extraverted individuals are strongly oriented toward, and influenced by, their social environment. They actively seek out opportunities to interact with others, are talkative, assertive, and excitable. People scoring high on neuroticism tend to easily perceive situations as threatening or difficult, and to react strongly to them. They are prone to moodiness and irritability.

Numerous studies have demonstrated that extraversion and neuroticism are related to systematic differences in people's affective lives. While extraversion is associated with a higher propensity to experience positive affect, neuroticism is characterized by a susceptibility to experience negative affect (for a review of findings, see Ng and Diener, 2009). It has been argued that part of these affective differences may be driven by variations in people's affect-regulation motivation. In line with this idea, results from various studies suggest that the higher people score on neuroticism, the less motivated they are to ameliorate negative affective experiences. In contrast, the higher individuals score on extraversion, the more motivated they are to reduce or eliminate negative affective experiences, and to seek or maintain positive affect (e.g., Kämpfe and Mitte, 2009; Ng and Diener, 2009).

Tamir demonstrated that these personality differences in affect-regulation motivation are particularly evident in situations of effortful goal pursuit. Across a series of studies, extraversion was predictive of a higher motivation to seek out happiness-inducing experiences in anticipation of effortdemanding tasks (e.g., giving a speech), but not in anticipation of undemanding situations (e.g., listening to music, Tamir, 2009a). Similarly, neuroticism was predictive in various studies of a higher motivation to increase worry in anticipation of effort-demanding (but not in anticipation of undemanding) tasks (Tamir, 2005). The author explained these results by arguing that trait-consistent affective states have instrumental benefits for the individual in effortful situations. Individuals high in extraversion feel rewarded by social acknowledgment and praise, which can be achieved by approach behaviors. Feeling elated and happy is congruent with such an active approach orientation. Individuals high in neuroticism, in contrast, gain rewards from successfully evading threats and punishment. Feeling worried is congruent with such a disposition to avoid negative outcomes. Tamir further proposed that such traitconsistent affect leads to greater task engagement and better task performance. Supporting this idea, individuals scoring high on neuroticism were indeed faster in making valence distinctions when being in a negative as compared to a neutral mood (Tamir and Robinson, 2004), and solved more anagrams after recalling a worrisome versus happy event from their past (Tamir, 2005).

Self-Esteem

Self-esteem refers to an individual's global evaluation of, or liking for, him- or herself. In several studies, people with low self-esteem were less motivated to attenuate negative affect (Heimpel et al., 2002; Wood et al., 2009) and to maintain positive affect (Wood et al., 2003). Enhancing the salience of personal failure or social-rejection experiences further enhanced such contra-hedonic tendencies in participants with low self-esteem (Wood et al., 2009). Evidence within this research tradition further showed that people low in self-esteem felt less deserving of positive affect, and regarded negative affect as more consistent with their selfimage than people high in self-esteem. According to selfverification theory, people strive to maintain consistency in their self-views, even if these are unfavorable, because stable self-views enhance the predictability of events and thus provide a sense of control. Striving for self-consistency may thus be among the mechanisms underlying the differences in affect-regulation motivation between individuals with high and low self-esteem (Wood et al., 2009).

Cultural Differences

A frequently used approach to differentiate between cultures is to categorize them as being either individualistic or collectivistic. Members of individualistic cultures tend to define themselves as being unique, to strive for independence and the assertion of their individual interests. Members of collectivistic cultures, in contrast, tend to perceive themselves as being an inseparable part of their social context, to strive for social harmony and the fulfillment of their social duties. Western cultures are typically individualistic, whereas Eastern cultures are often collectivistic.

Affective states likely differ in their instrumental value for the achievement of these culture-specific strivings, which should lead to culture-specific differences in how affective experiences are valued. For example, affect that signals successful approach to personal goals (e.g., pride) should be more important in individualistic cultures, whereas affect that signals failure to meet social obligations (e.g., guilt) should be more important in collectivistic cultures (Eid and Diener, 2001). Empirical evidence indeed suggests cultural differences in the appreciation of affective experiences. Westerners tend to regard positive affect as being more desirable, and negative affect as being more undesirable than Easterners do (Eid and Diener, 2001). Easterners, in contrast, regard finding a dialectical balance between positive and negative affective experiences more valuable than Westerners do (Miyamoto and Ma, 2011).

Similar differences have also been found with regard to the actual affective lives of members from individualistic versus collectivistic cultures. Easterners tend to experience positive affect less frequently than Westerners do (e.g., Mesquita and Karasawa, 2002). Furthermore, positive and negative affect is less negatively correlated (i.e., less mutually exclusive) among Easterners than among Westerners, suggesting a greater likelihood to experience positive and negative affect simultaneously (e.g., Perunovic et al., 2007).

Again, it seems likely that people's affect-regulation motivation is among the mechanisms that mediate these culture-specific differences in affective experiences. Across a series of studies, Miyamoto and Ma (2011) indeed found that Westerners reported more prohedonic affect-regulation motivation than Easterners did. While Westerners had a clear preference for maximizing positive, and minimizing negative affect, Easterners were more inclined to seek a middle way to balance experiences of positive and negative affect.

Summary and Outlook for Future Research

Affect-regulation motivation refers to how people want to influence their affective experiences. In psychologically healthy individuals, it is typically prohedonic, that is, directed at the enhancement or maintenance of positive affect, or the dampening of negative affect. Occasionally, however, it can also be directed at the enhancement or maintenance of negative affect, or the dampening of positive affect. Such contra-hedonic motivation is accompanied by momentary impairments in the individual's cognitive capacity, which is likely due to the effort that is needed to overcome the prevailing prohedonic orientation.

Two theoretical explanations for occurrences of contrahedonic motivations have been discussed. The mixed-affect perspective proposes that people occasionally seek negative affective experiences because they are accompanied or followed by positive affect. The instrumental-affect perspective maintains that contra-hedonic motivation may arise when negative affect is helpful for, or positive affect detrimental to the individual's goals. Empirical evidence supports both positions, suggesting that they are complimentary rather than mutually exclusive explanations of contra-hedonic motivation.

Affective experiences vary substantially between individuals. Such differences have been associated, for example, with people's age, their personality, and cultural background. The mechanisms underlying these individual differences in affective experiences are not yet fully understood. Evidence suggests, however, that people's affect-regulation motivations may be one of them. In part, the affective differences between individuals from different age groups or cultural backgrounds, or between individuals with different personality dispositions thus appear to be sought and maintained by the individual actively (although not necessarily consciously). Within the age range from adolescence to old age, for example, contra-hedonic motivation is most prevalent in adolescence, whereas prohedonic motivation is most pronounced among older adults. Furthermore, neuroticism and low self-esteem are associated with less prohedonic and more contra-hedonic motivation, whereas the reverse association pattern has been observed for extraversion. Differences in affect-regulation motivation have also been observed between cultural contexts. Prohedonic motivation, for example, is more pronounced among members of Western, individualistic cultures. Members from Eastern, collectivistic cultures, in contrast, tend to be more inclined to seek a dialectic balance of positive and negative affect.

Among the most important research desiderata in this field of study is the rigorous investigation of the sequence of causality in the observed associations, using appropriate experimental and longitudinal study designs. This will provide a sound empirical basis for distinguishing between antecedents and consequences of different types of affectregulation motivations. A particularly relevant question in this regard pertains to the link between an individual's affect-regulation motivation and his or her actual engagement in, and success of, affect-regulatory behaviors. The motivation-behavior gap is a well-known phenomenon of human volition, and likely also applies to the specific case of affect-regulation motivation. Having a particular goal does not imply that the individual necessarily engages in its active pursuit, nor does it guarantee that he or she will eventually attain it. An interesting task for future research will therefore be to identify factors that determine whether and how successfully individuals implement their affectregulation motivation in actual regulation efforts. A related question refers to the longer-term adaptiveness of different types of affect-regulation motivation (cf Tamir and Ford, 2012b). Do certain types of affect-regulation motivation play a role for the individual's longer-term socioemotional adaptation? For example, does contrahedonic motivation really facilitate the socioemotional adaptation of adolescents, as has been speculated in the literature (Riediger et al., 2009)?

Meticulous investigation of many of these questions would require longitudinal study designs. Such designs would also make it possible to address another important issue regarding the observed age differences in people's affect-regulation motivation: They could help to determine the extent to which these age effects result from differences between birth cohorts rather than from developmental changes within persons growing older.

Affect-regulation motivation has typically been conceived of as a phenomenon that can either be deliberate and intentional or proceed automatically and without conscious awareness. An interesting task for future investigations will be to unravel these different forms of affect-regulation motivation, and to investigate possible consequences that congruence or divergence between deliberate and automatic affect-regulation motivation motivation may have. A related open question refers to the modifiability of affect-regulation motivation. Can individuals, perhaps with the help of an outside intervention, change the way they want to regulate their affective experiences?

Last but not least, types of affect-regulation motivation so far have been primarily distinguished with respect to the valence (i.e., the pleasantness/unpleasantness) of the affective experiences that an individual seeks to regulate. An interesting task for future investigations will be to consider the role of the to-be-regulated affective experience's other characteristics as well; such as its arousal level, or whether it is a relatively short-lived, specific emotion, or a relatively more unspecific and longer-lasting mood.

Taken together, the research reviewed in this article has demonstrated that the systematic empirical inquiry of affect-regulation motivation is a promising tool to further the understanding of affective experiences in general, and of individual differences and within-person fluctuations therein in particular. Many questions, however, still remain to be investigated in the future.

See also: Cross-Cultural Psychology; Culture and the Self: Implications for Psychological Theory; Emotion in Cognition; Emotion, Perception and Expression of; Emotional Regulation; Emotions, Psychological Structure of; Extraversion; Implicit Association Test; Lifespan Development, Theory of; Neuroticism; Personality, Trait Models of; Personality: Historical and Conceptual Perspectives; Self-Esteem; Selfconscious Emotions, Psychology of; Subjective Wellbeing and Culture; Working Memory, Psychology of.

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