
Article:
Webb, T.L., Totterdell, P. and Ibar, D.N.H. (2015) Foundations and Extensions for the Extended Model: More on Implicit and Explicit Forms of Emotion Regulation. Psychological Inquiry, 26 (1). 123 - 129. ISSN 1047-840X

https://doi.org/10.1080/1047840X.2015.960040

Commentary for Psychological Inquiry

Foundations and extensions for the extended model:

More on implicit and extrinsic forms of emotion regulation

Thomas L. Webb, Peter Totterdell, and Daria N. Hernandez Ibar

University of Sheffield, UK

Correspondence. Correspondence concerning this article should be addressed to Thomas Webb, Department of Psychology, University of Sheffield, Sheffield S10 2TN, UK. Electronic mail may be sent to t.webb@sheffield.ac.uk

Abstract

Gross's Extended Process Model of Emotion Regulation (or EPM) draws on insights from the psychology of action control to consider not just the strategies that people use to regulate their emotions, but also how people decide when and how to regulate, and go about implementing their chosen strategy. This commentary seeks to extend the action control perspective on emotion regulation even further to connect the EPM with extant frameworks on self-regulation. In this regard, we consider the relation between emotions and behavior, conflict between emotional goals, the nature of the reference value toward which regulation is directed, and the dynamics of emotion regulation. We then consider two issues only touched on by Gross's review – automatic (or implicit) emotion regulation and (ii) interpersonal (or extrinsic) emotion regulation.

Foundations and extensions for the extended model: More on implicit and extrinsic forms of emotion regulation

The primary contribution of James Gross's target article is to present an Extended Process Model of emotion regulation[1] that – as the name suggests – quite literally extends the process model, which has been one of the dominant frameworks for understanding emotion regulation to date (for a review, see Webb, Miles, & Sheeran, 2012). Specifically, the extended model (hereafter, termed the EPM) considers (i) what makes people decide to regulate their emotions and (ii) some of the challenges that people are likely to face when regulating their emotions. These are not new ideas. Indeed, the analysis of when people decide to regulate draws heavily on cybernetic models of self-regulation (e.g., the work of Carver & Scheier, 1982; that, in turn, drew on the work of Powers, 1973; Powers, Clark, & McFarland, 1960a, 1960b). The consideration of challenges draws on other action control perspectives on emotion regulation, such as those described by Bonanno and Burton (2013), Gross and Jazaieri (2014), Webb, Schweiger Gallo, Miles, Gollwitzer, and Sheeran (2012). However, these extensions are valuable, in refining and updating theory, integrating disciplines (e.g., work on behavioral and affective sciences), and bringing the action control perspective to a wider audience.

An advantage of integrating insights from behavioral and affective science is that many of the important questions have already been considered. The extensions also potentially bring applied benefit because interventions from the behavioral sciences can be translated to the affective sciences. For example, Webb, Schweiger Gallo, et al. (2012) review how forming specific if-then plans (known as implementation intentions,

[1] Not to be confused with the extended parallel process model (Witte, 1992), which is concerned with fear appraisals.

Gollwitzer, 1999; Gollwitzer & Sheeran, 2006) can help people to deal with difficulties during emotion regulation. In short, there are a number of reasons to think that the integration of insights gleaned from the regulation of behavioral responses to the regulation of affective responses is long overdue. In this commentary, we want to suggest that more could be done to connect the extended model with the extant literature on which it is (presumably) based and that so doing will reap rewards for research related to the EPM. In addition, we propose that the EPM might be extended further to consider two issues that are important in the field, but about which the target article currently says relatively little: (i) automatic (or implicit) emotion regulation and (ii) interpersonal (or extrinsic) emotion regulation. Gross considers both of these issues in defining the nature of emotion regulation, but they are not considered in relation to the EPM.

Identifying and Using the Theoretical Foundations of the EPM

The EPM suggests that emotion regulation comprises a hierarchy of valuation systems. Each valuation system has a control loop in which a discrepancy between a perceived current state of the world and a desired goal state (e.g., someone notices that they are becoming frustrated) produces a response (e.g., the person decides to take a break from what they are doing) that affects the internal or external world (e.g., the person feels less frustrated). The valuation cycle is repeated until the monitored discrepancy is sufficiently reduced. In the EPM, emotion regulation is a second-level valuation system that targets the emotions produced by a first-level valuation system. Powers (1973) and Carver and Scheier (1982) have previously described the same hierarchical organization of feedback loops for controlling behavior and affect, with different terms but equivalent components in each control loop. The output of a control

loop in these schemes usually provides the reference value for the respective lower level negative feedback loop. For example, having good relationships at work (the goal of the higher level loop) requires that one keep feelings of frustration under control (i.e., provides the goal for the lower level of the loop). The question is how might these earlier conceptions and the research that they have produced help to advance research on emotion regulation? We identify four examples that cover issues of: the relation between emotions and behavior, how conflict between emotional goals is resolved, the nature of the reference value toward which regulation is directed, and the dynamics of emotion regulation.

The Relation between Emotions and Behavior. A hallmark of perceptual control theory (PCT; Powers, 1973; Powers et al., 1960a, 1960b) is that living systems are viewed as using behavior (or action) to actively control the perceived environment so as to bring it into line with the system's goals. Therefore, behavior is viewed as controlling inputs in a goal-directed way, rather than merely a response to what happens in the environment. What this means for the EPM is that emotion regulation should not be seen as a response to a change in emotion state (e.g., becoming frustrated). Instead it is something that is deployed to achieve a particular goal (e.g., to not get frustrated). This change of emphasis is potentially important because it fits with new perspectives on emotion which suggest that behavior pursues emotion in a goal-directed fashion, rather than emotion directly influencing behavior (Baumeister, Vohs, DeWall, & Zhang, 2007; Seligman, Railton, Baumeister, & Sripada, 2013).

Conflict between Emotional Goals. Gross (p. 20) points out that different valuation systems can be active simultaneously, and that when this occurs they can either

be supportive of one another or pull in different directions. Gross provides an example of the latter occurring when two motives are in conflict and argues that, in such situations, either the stronger impulse wins or the conflict is adjudicated by another valuation system. According to PCT, conflict occurs when two or more goals try to set different reference values for the same lower-level goal (Powers et al., 1960b). For example, the goal to be sociable and the goal to be successful at work likely have different implications for the amount of time that a person should spend working. 'Method of levels' therapy (Mansell, 2009) suggests that goal conflict needs to be resolved at a higher level in the hierarchy, and so people who are trying to resolve conflicts are encouraged to identify and focus on higher-level goals. Psychopathology can arise when conflicts between goals are ignored and arbitrary control is applied (Mansell, 2005). This idea has been used to develop a model of emotion regulation in bipolar disorder in which symptoms of bipolar disorder are understood to arise as a consequence of the person having conflicting beliefs about internal states (Searson, Mansell, Lownes, & Tai, 2012). Arbitrary control of these internal conflicts (that is, control that neglects one of the conflicting goals) leads to 'over-regulation' of emotions, producing a behavioral ascent cycle for mania or a behavioral descent cycle for depression. Recent evidence also indicates that goal conflict is a primary source of mixed emotions (Berrios, Totterdell, & Kellett, 2014), something that the EPM currently says relatively little about, but that are a common experience in everyday life (Oatley & Johnson-Laird, 1996).

The Nature of the Reference Value. Each valuation that occurs in the EPM entails a comparison between a perceived state of the world and a desired state or reference value. Theorizing in the behavioral sciences has considered where reference values come

from and how the nature of the reference value changes during the course of goal pursuit. Specifically, evidence suggests that in the early stages of goal pursuit people focus on change from the initial state (i.e., what they have achieved so far), whereas at the later stages of goal pursuit they shift their focus to the difference between the current and desired state (i.e., what they have left to do, Bonezzi, Brendl, & De Angelis, 2011). Research has also shown that it is the rate with which one is making progress toward goals, rather than the absolute size of the discrepancy between current state and desired goal state, that influences the need to act (Carver & Scheier, 1990; Hsee & Abelson, 1991), or the perceived value of regulation in Gross's terms. It would be valuable to investigate whether similar processes are involved in emotion regulation. For example, is it the rate of change in emotions that influences regulation or the absolute size of the discrepancy between actual and desired emotional states?

Dynamics of Emotion Regulation. The EPM describes the processing dynamics involved in regulating emotions over time, including maintaining, switching and stopping emotion regulation. The importance of these processes in the context of action control has been discussed by a number of authors (for a review, see Gollwitzer & Sheeran, 2006) and it would be worth making explicit connections between the dynamics involved in regulating behavioral and affective responses. With respect to maintenance, for example, Gross's target article usefully points out that "emotion regulation maintenance requires that the goal to regulate emotion be successfully shielded from other competing goals" (p. 30), but does not refer to the literature on goal shielding, which might help to explain how this is achieved (e.g., Achziger, Gollwitzer, & Sheeran, 2008; Goschke & Dreisbach, 2008; Shah, Friedman, & Kruglanski, 2002). The EPM also discusses the importance of

being able to flexibly switch between emotion regulation strategies (see also Kashdan & Rottenberg, 2010), but does not specify what instigates the switch. One possibility is resource depletion (for reviews, see Hagger, Wood, Stiff, & Chatzisarantis, 2010, Muraven & Baumeister, 2000). That is, people may switch from relatively effortful to less effortful strategies if they believe that they are running low on resources (Muraven, Shmueli, & Burkley, 2006).

To summarize this section on theoretical foundations, one of the strengths of the EPM is that it applies a number of ideas and insights from the behavioral sciences to understand emotion regulation. We believe that acknowledging these perspectives builds a more robust theoretical and empirical basis for the EPM, as well as serving to introduce the ideas to a wider audience. It seems likely that research on emotion regulation will enter a 'translational' period in which researchers examine which processes and insights can be translated from action control to affective control. Having started to connect the EPM to extant literature, we now return to our two points for extension.

Automatic (implicit) emotion regulation

In relation to automatic emotion regulation, Gross acknowledges that "emotion regulation can also be engaged outside of conscious awareness" (p. 8) and that emotion regulation strategies include "both processes that are under deliberate control and processes that operate implicitly" (p. 10). However, the EPM says relatively little about whether the conscious or unconscious initiation of emotion regulation goals influences the process of emotion regulation (although the question is posed on p. 31). For example, do people need to consciously perceive a discrepancy between the current state (termed 'the world) and the desired state for emotion regulation to occur? Custers and Aarts

(2007) present evidence that discrepancies can prime goal-directed actions outside participants' conscious awareness. In an illustrative study, participants worked on a language task that unobtrusively activated a discrepancy from the goal of looking well groomed (e.g., participants read the sentence "The shoes you put on look dirty"). Custers and Aarts found that primed participants were faster to respond to instrumental actions (e.g., polishing) than were participants who read matched sentences that did not activate a discrepancy (e.g., read the sentence "The shoes you put on have laces"), at least when participants frequently pursued the goal to look well groomed. These findings suggest that situations requiring emotion regulation may automatically activate relevant goals, and trigger instrumental actions without the person necessarily being aware of so doing (this idea forms the basis of the auto-motive model, Bargh, 1990; Bargh & Chartrand, 1999; Bargh, Gollwitzer, Lee-Chai, Barndollar, & Trotschel, 2001).

Evidence from the behavioral sciences also suggests that goals that are initiated outside awareness operate in a similar manner to consciously activated goals (e.g., Bargh et al., 2001; Chartrand & Bargh, 1996; Förster, Liberman, & Friedman, 2009). In two experiments, Bargh et al. (2001) found that non-conscious activation of the goal to perform well increased persistence (participants continued working on a word search task after time had run out) and resumption (participants chose to continue doing the same word search task after being interrupted and after being provided with the opportunity to engage in a different task) relative to participants for whom this goal was not activated. These experiments provide evidence that goals that are activated non-consciously have similar features to consciously activated goals; namely, that they are persisted with until completion and resumed when interrupted. Although empirical research has started to

translate these ideas to emotion regulation (for a review, see Bargh & Williams, 1997), it is not yet clear which of the stages of emotion regulation specified by Gross's EPM are likely to become automatized, when, and with what effects – the value associated with emotion regulation (identification stage) and the choice (selection stage) and application of regulation strategy (implementation stage). We contend that implicit processes are likely to influence all three stages of the regulation process and provide some indicative evidence below.

Williams, Bargh, Nocera, and Gray (2009) showed that it is possible to non-consciously activate emotion regulation goals. Participants were primed via a scrambled sentence task with the goal to reappraise their emotional responses while giving a short speech (i.e., participants constructed sentences that included the words 'reassessed', 'perspective', 'appraised again', 'carefully analyzed', and 'strategy'). Williams et al., found that primed participants were less emotional than a control group who were exposed to neutral sentences and had a similar emotional response to the stressful task (giving a short speech) to participants who were explicitly asked to reappraise their emotional responses. Importantly, careful debriefing indicated that no participants were aware of a theme to the words in the scrambled sentence task nor guessed the hypotheses of the study, suggesting that the priming procedure influenced emotion regulation outside of participants' awareness (one of the defining features of an automatic process, Bargh, 1994; Moors & De Houwer, 2006). There is also evidence that the valuation sub-step of the identification stage of the EPM can proceed automatically. Mauss, Evers, Wilhelm, and Gross (2006) showed that peoples' automatic (or implicit) attitudes toward the regulation of emotions can influence responses. Specifically, Mauss et al. found that

participants who showed a positive implicit evaluation of emotion regulation (as indicated by a modified implicit association test; the ER-IAT) were more likely to regulate their emotions (i.e., showed decreased experiential, behavioral, and cardiovascular responding) when provoked.

The selection of emotion regulation strategies is also likely to be influenced by implicit processes. Research on cognitive habits, for example, suggests that there are individual differences in the tendency to respond to emotional events in particular ways (e.g., with self-criticism) and that these responses are relatively automatic (i.e., are unintended, are initiated without awareness, are difficult to control and so on, Verplanken, Wang, Trafimow, & Woolf, 2007). The implication is that the frequent and consistent use of a particular strategy for emotion regulation means that the person does not need to deliberate about how to respond; instead, the strategy is selected relatively automatically (Wood & Neal, 2007). While in many instances, the automatic selection of emotion regulation strategies is likely to be functional (e.g., emotion regulation can proceed relatively efficiently), habitual selection of particular strategies could lead to overgeneralization. For example, a strategy that effectively modifies a sad mood may not work for anxiety (Webb, Schweiger Gallo, et al., 2012). Habits may also be difficult to unlearn, with evidence suggesting that strong habits persist despite changes in the goals that originally supported them (Wood & Neal, 2007) and plans to respond in a different manner (Webb, Sheeran, & Luszczynska, 2009). In short, it seems likely that, in many instances, the choice of strategy to regulate a particular affective experience may be determined relatively automatically.

With respect to the implementation stage, Schweiger Gallo, Keil, McCulloch, Rockstroh, and Gollwitzer (2009) provided evidence that forming implementation intentions to regulate emotions in a particular manner enabled the regulation strategy to be implemented relatively automatically. Specifically, participants who were scared of spiders and formed implementation intentions ("And if I see a spider, then I will remain calm and relaxed!") were better at down-regulating their fear than similarly scared participants who were given a goal intention ("I will not get frightened!") and than those in the control group who were given no instructions about regulating their fear. Similar findings have been reported for participants under cognitive load (Schweiger Gallo & Gollwitzer, 2007) and Schweiger Gallo et al. (2009, Study 3) measured ERPs and found that forming implementation intentions reduced early visual activity in response to pictures of spiders. Taken together, these findings suggest that forming implementation intentions enables people to implement emotion regulation in a relatively automatic manner (for a review, see Webb, Schweiger Gallo, et al., 2012). These findings are consistent with research on action control under implementation intentions (e.g., Gollwitzer & Schaal, 1998; Webb & Sheeran, 2008) and point, once again, to the value of translating insights from behavioral to affective sciences.

Interpersonal (Extrinsic) Emotion Regulation

The original process model (Gross, 1998a, 1998b) focused on how people regulate their own emotions, and was only concerned with people's use of interpersonal behaviors in the context of influencing their own emotions (e.g., soothing an upset person in order to feel calmer oneself). However, as Gross acknowledges in the target article, there are also times when people need or want to regulate another person's emotions, and

the effect of the regulation effort on the other person's emotions is of interest. Gross terms this "extrinsic emotion regulation" as did Niven, Totterdell and Holman (2009) in their classification of interpersonal emotion regulation strategies, but here we stick with the term interpersonal emotion regulation to contrast it with intrapersonal emotion regulation.

A growing body of research has started to consider interpersonal emotion regulation, including its theoretical (Zaki & Williams, 2013), neural (Hallam et al., 2014), and measurement (Niven, Totterdell, Stride, & Holman, 2011) basis, as well as the types of interpersonal regulation strategies that people use (e.g., Niven et al., 2009) and the consequences of interpersonal emotion regulation for others (Niven, Holman & Totterdell, 2012) and for self (Martinez-Iñigo, Poerio, & Totterdell, 2013; Niven, Totterdell, Holman, & Headley, 2012). This work can contribute to the updated version of the process model, but the question that we address here is whether the EPM can be extended further to help us to understand how people regulate others emotions? To answer this, we highlight the relevance of extant research from organizational psychology on emotional labor; research that seeks to understand how people (workers) regulate their own feelings in order to influence other people's feelings (clients and colleagues). Research on emotional labor shows the importance of accounting for reciprocal influence when studying interpersonal emotion regulation as a control system.

Research on emotional labor started with Hochschild's (1983) seminal work The Managed Heart, which identified how employees manage their feelings and emotional expressions as a requirement of their work role. The purpose of this regulation is to influence the feelings and behaviors of clients and colleagues with a view to benefiting

the organization. Sometimes this ‘emotional labor’ benefits the employee too (in money and health), but it can also have adverse consequences such as emotional exhaustion (Holman, Martinez-Iñigo, & Totterdell, 2008). Two types of regulation strategy commonly used by employees have been studied in depth: deep acting which involves bringing emotions into line with those that have to be displayed, and surface acting which involves displaying the required emotions while suppressing actual feelings. These two strategies have been respectively likened to antecedent-focused and response-focused emotion regulation from Gross’s process model (Grandey, 2000). However, emotional labor is also a form of interpersonal emotion regulation because the regulation is directed at changing other people’s feelings.

In general, surface acting has been associated with more negative consequences for employees than deep acting because, although both are effortful and therefore depleting, surface acting is perceived to be less authentic by its targets and is therefore less likely to recover resources through positive feedback from clients and colleagues (Côté, 2005; Martinez-Iñigo et al., 2007). The role of feedback is important because it highlights that interpersonal emotion regulation involves the coupling of (at least) two purposive systems each of which has its own set of goals (Niven, Totterdell, Holman, & Cameron, 2012). In terms of the EPM, this means that the set of valuation systems need to be extended to include each person involved in the interpersonal interaction.

This extension is likely to produce complex dynamics as each person tries to control the other through their own expression of emotions and adjusts their behavior according to the response that is received. Complex dynamics are difficult to study using conventional statistical methods but may be amenable to computer modeling in which

simulations of the principal control loops involved in interpersonal emotion regulation are built. Exploratory research of this kind has produced promising results (Cameron, 2013; Cameron, Totterdell, Holman, & Bennett, 2009), including predictions about when people are likely to switch from deep acting to surface acting. The MARDY simulation (Cameron, 2013) models the person regulating their emotions as two control loops – one for regulating emotional experience and the other for regulating emotional expression – each of which depletes a common resource when used. Interpersonal dynamics can be generated and evaluated by exposing the model to simulations of emotional events. A benefit of this approach is that a model that produces plausible behavior for known circumstances can be used to predict what might happen in unknown circumstances or those that are difficult to study (e.g., for extremes of emotion and regulation). We suggest, therefore, that computer simulations may offer a productive way forward for research on the EPM.

Conclusion

This commentary has endeavored to extend the EPM further, both to connect it with a broader range of literature and to expand consideration of two issues that are only touched on in the target article – namely, automatic (or implicit) and interpersonal (or extrinsic) forms of emotion regulation. The insights that derive from this analysis are that research in the affective sciences could learn from studies of similar issues in the behavioral sciences, particularly to understand the purpose of emotion regulation, and the effect of goal conflict on responses. Future research might also usefully integrate the possibility that the stages of emotion regulation described by the EPM can proceed relatively automatically. Finally, we agree with Gross that the EPM might help to

understand interpersonal forms of emotion regulation, but suggest that so doing might require more complex models to take into account other people's valuation systems. Computational models may help in this regard.

References

Achziger, A., Gollwitzer, P. M., & Sheeran, P. (2008). Implementation intentions and shielding goal striving from unwanted thoughts and feelings. Personality and Social Psychology Bulletin, 34(3), 381–393. doi:10.1177/0146167207311201

Bargh, J. A. (1990). Auto-motives: Preconscious determinants of social interaction. In E. T. Higgins & R. M. Sorrentino (Eds.), Handbook of motivation and cognition (Vol. 2, pp. 93- 130). New York: Guilford.

Bargh, J. A. (1994). The Four Horsemen of automaticity: Awareness, efficiency, intention, and control in social cognition. In R. S. Wyer, Jr., & T. K. Srull (Eds.), Handbook of social cognition (2nd ed., pp. 1-40). Hillsdale, NJ: Erlbaum.

Bargh, J. A., & Chartrand, T. L. (1999). The unbearable automaticity of being. American Psychologist, 54(7), 462–479. doi:10.1037/0003-066X.54.7.462

Bargh, J. A., Gollwitzer, P. M., Lee-Chai, A., Barndollar, K., & Trotschel, R. (2001). The automated will: Nonconscious activation and pursuit of behavioral goals. Journal of Personality and Social Psychology, 81(6), 1014–1027. doi:10.1037//0022-3514.81.6.1014

Bargh, J. A., & Williams, L. E. (2007). The non-conscious regulation of emotion. In J. J. Gross (Ed.), Handbook of emotion regulation (pp. 429–445). New York: Guilford.

Baumeister, R. F., Vohs, K. D., DeWall, N., & Zhang, L. (2007). How emotion shapes behavior: Feedback, anticipation, and reflection, rather than direct causation. Personality and Social Psychology Review, 11, 167-203. doi:10.1177/1088868307301033

Berrios, R., Totterdell, P., & Kellett, S. (2014). Investigating goal conflict as a source of mixed emotions. Cognition & Emotion. doi: 10.1080/02699931.2014.939948

Bonanno, G. A., & Burton, C. L. (2013). Regulatory flexibility: An individual differences perspective on coping and emotion regulation. Perspectives on Psychological Science, 8, 591-612. Doi:10.1177/1745691613504116

Bonezzi, A., Brendl, C. M., & De Angelis, M. (2011). Stuck in the middle: the psychophysics of goal pursuit. Psychological Science, 22(5), 607–612. doi:10.1177/0956797611404899

Cameron, D. S. (2013). Modelling Affect Regulation Dynamics (MARDY): A computational simulation of affect change. Unpublished dcoctoral thesis, University of Sheffield.

Cameron, D., Totterdell, P., Holman. D., & Bennett, S. (2009, October). Control theory of emotion regulation: A dynamic model of emotion. Paper presented at the Specification and Computation of Affect in Collaborative Social Networks (SCASNET) Workshop, of the 10th IFIP Conference of Virtual Enterprises (PRO-VE'09), Thessaloniki, Greece.

Carver, C. S., & Scheier, M. F. (1982). Control theory: A useful conceptual framework for personality, social, clinical and health psychology. Psychological Bulletin, 92, 111–135.

Carver, C. S., & Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control process view. Psychological Review, 97, 19–35. doi:10.1037/0033-295X.97.1.19

Chartrand, T. L., & Bargh, J. A. (1996). Automatic activation of impression formation and memorization goals: Nonconscious goal priming reproduces effects of explicit task instructions. Journal of Personality and Social Psychology, 71(3), 464–478. doi:10.1037//0022-3514.71.3.464

Côté, S. (2005). A social interaction model of the effects of emotion regulation on work strain. Academy of Management Review, 30, 509-530. doi:10.2307/20159142

Custers, R., & Aarts, H. (2007). Goal-discrepant actions prime goal-directed actions if goals are temporarily or chronically accessible. Personality and Social Psychology Bulletin, 33(5), 623–633. doi:10.1177/0146167206297404

Förster, J., Liberman, N., & Friedman, R. S. (2009). Seven principles of goal activation: A systematic approach to distinguishing goal priming from priming of non-goal constructs. Personality and Social Psychology Review, 11(3), 211–233. doi:10.1177/1088868307303029

Gollwitzer, P. M. (1999). Implementation intentions: Strong effects of simple plans. American Psychologist, 54, 493–503. doi:DOI:10.1037/0003-066X.54.7.493

Gollwitzer, P. M., & Schaal, B. (1998). Meta-cognition in action: The importance of implementation intentions. Personality and Social Psychology Review, 2, 124–136. doi:10.1207/s15327957pspr0202_5

Gollwitzer, P. M., & Sheeran, P. (2006). Implementation intentions and goal achievement: A meta-analysis of effects and processes. Advances in Experimental Social Psychology, 38, 69–120. doi:10.1016/50065-2601(06)38002

Goschke, T., & Dreisbach, G. (2008). Conflict-triggered goal shielding: Response conflicts attenuate background monitoring for prospective memory cues. Psychological Science, 19(1), 25–32. doi:10.1111/j.1467-9280.2008.02042.x

Grandey, A. (2000). Emotion regulation in the workplace: A new way to conceptualize emotional labour. Journal of Occupational Health Psychology, 5, 95–110.

Gross, J. J. (1998a). Antecedent- and response-focused emotion regulation: Divergent consequences for experience, expression, and physiology. Journal of Personality and Social Psychology, 74, 224–237. doi:10.1037/0022-3514.74.1.224

Gross, J. J. (1998b). 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., & Jazaieri, H. (2014). Emotion, emotion regulation, and psychopathology: An affective science perspective. Clinical Psychological Science, 2, 387-401. doi: 10.1177/2167702614536164

Hagger, M. S., Wood, C., Stiff, C., & Chatzisarantis, N. L. D. (2010). Ego depletion and the strength model of self-control: A meta-analysis. Psychological Bulletin, 136(4), 495–525. doi:10.1037/a0019486

Hallam, G. P., Webb, T. L., Sheeran P., Miles E., Niven, K., Wilkinson, I. D., Hunter, M., Woodruff, P. W. R., Totterdell, P., & Farrow, T. F. D. (2014). The neural correlates of regulating another person's emotions: An exploratory fMRI study. Frontiers in Human Neuroscience, 8, 376. doi: 10.3389/fnhum.2014.00376.

Hochschild, A. R. (1983). The managed heart: The commercialization of human feeling. Los Angeles, CA: University of California Press.

Holman, D., Martinez-Iñigo, D, & Totterdell, P. (2008). Emotional labour, well-being and performance. In S. Cartwright & C. Cooper (Eds.), The Oxford handbook of organizational well-being (pp. 331-355). Oxford: Oxford University Press.

Hsee, C. K., & Abelson, R. P. (1991). Velocity relation: Satisfaction as a function of the first derivative of outcome over time. Journal of Personality and Social Psychology, 60, 341–347.

Kashdan, T. B., & Rottenberg, J. (2010). Psychological flexibility as a fundamental aspect of health. Clinical Psychology Review, 30, 865–878. doi: 10.1016/j.cpr.2010.03.001

Mansell, W. (2005). Control theory and psychopathology. An integrative approach. Psychology and Psychotherapy: Theory Research and Practice, 78, 141-178. doi: 10.1348/147608304X21400

Mansell, W. (2009). Perceptual control theory as an integrative framework and Method of Levels as a cognitive therapy: What are the pros and cons? The Cognitive Behaviour Therapist, 2, 178-196. doi:10.1017/S1754470X08000093

Martinez-Iñigo, D., Poerio, G., & Totterdell, P. (2013). You drain me: The association between controlled interpersonal affect regulation and resource depletion. Applied Psychology: Health and Well-Being, 5, 248-269.

Martinez-Iñigo, D., Totterdell, P., Alcover, C. M., & Holman, D. (2007). Emotional labor and emotional exhaustion: Interpersonal and intrapersonal mechanisms. Work & Stress, 21, 30-47. doi:10.1080/02678370701234274

Mauss, I. B., Evers, C., Wilhelm, F. H., & Gross, J. J. (2006). How to bite your tongue without blowing your top: Implicit evaluation of emotion regulation predicts affective responding to anger provocation. Personality and Social Psychology Bulletin, 32(5), 589-602. doi:10.1177/0146167205083841

Mauss, I. B., Bunge, S. A. & Gross, J. J. (2007). Automatic emotion regulation. Social and Personality Psychology Compass, 1(1), 146-167. doi:10.1111/j.1751-9004.2007.00005.x

Moors, A., & De Houwer, J. (2006). Automaticity: A theoretical and conceptual analysis. Psychological Bulletin, 132(2), 297-326. doi: 10.1037/0033-2909.132.2.297

Muraven, M., & Baumeister, R. F. (2000). Self-regulation and depletion of limited resources: does self-control resemble a muscle? Psychological Bulletin, 126(2), 247–259. doi:10.1037//0033-2909.126.2.247

Muraven, M., Shmueli, D., & Burkley, E. (2006). Conserving self-control strength. Journal of Personality and Social Psychology, 91(3), 524–537. doi:10.1037/0022-3514.91.3.524

Niven, K., Holman, D., & Totterdell, P. (2012). How to win friendship and trust by influencing people's feelings: An investigation of interpersonal affect regulation and the quality of relationships. Human Relations, 65, 777-805. doi: 10.1177/0018726712439909

Niven, K., Totterdell, P., & Holman, D. (2009). A classification of controlled interpersonal affect regulation strategies. Emotion, 9(4), 498–509. doi:10.1037/a0015962

Niven, K., Totterdell, P., Holman, D., & Cameron, D (2012). Emotional labor at the unit-level. In A. Grandey, J. Diefendorff, & D. E. Rupp (Eds.), Emotional labor in the 21st century: Diverse perspectives on emotion regulation at work (pp. 101-123). Routledge Academic.

Niven, K., Totterdell, P., Holman, D., & Headley, T. (2012). Does regulating others' feelings influence people's own affective well-being? Journal of Social Psychology, 152, 246-260. doi:10.1080/00224545.2011.599823

Niven, K., Totterdell, P., Stride, C. B., & Holman, D. (2011). Emotion Regulation of Others and Self (EROS): The development and validation of a new individual difference measure. Current Psychology, 30(1), 53–73. doi:10.1007/s12144-011-9099-9

Oatley, K., & Johnson-Laird, P. N. (1996). The communicative theory of emotions: Empirical tests, mental models, and implications for social interaction. In Martin, L. & Tesser, A. (Eds.), Striving and feeling. Interaction among goals, affect, and self-regulation (pp. 363-393), New York, NY, US: Russell Sage Foundation.

Powers, W. T. (1973). Behavior: The Control of Perception. Chicago: Aldine.

Powers, W. T., Clark, R. K., & McFarland, R. L. (1960a). A general feedback theory of human behavior: Part I. Perceptual and Motor Skills, 11, 71–78. doi:10.2466/pms.1960.11.1.71

Powers, W. T., Clark, R. K., & McFarland, R. L. (1960b). A general feedback theory of human behavior: Part II. Perceptual and Motor Skills, 11, 309–323. doi:10.1016/0749-5978(90)90046-C

Schweiger Gallo, I., & Gollwitzer, P. M. (2007). Implementation intentions: Control of fear despite cognitive load. Psicothema, 19(2), 280–285.

Schweiger-Gallo, I., Keil, A., McCulloch, K. C., Rockstroh, B., & Gollwitzer, P. M. (2009). Strategic automation of emotion regulation. Journal of Personality and Social Psychology, 96(1), 11–31. doi:10.1037/a0013460.

Searson, R., Mansell, W., Lownes, I., & Tai, S. (2012). Think effectively about mood swings (TEAMS): A case series of cognitive behavioural therapy for bipolar disorders. Journal of Behavior Therapy and Experimental Psychiatry, 43, 770-779. doi: 10.1016/j.jbtep.2011.10.001

Seligman, M. E. P., Railton, P., Baumeister, R. F., & Sripada, C. (2013). Navigating into the future or driven by the past. Psychological Science, 8, 119-141. doi: 10.1177/1745691612474317

Shah, J. Y., Friedman, R., & Kruglanski, A. W. (2002). Forgetting all else: On the antecedents and consequences of goal shielding. Journal of Personality and Social Psychology, 83(6), 1261–1280. doi:10.1037//0022-3514.83.6.1261

Verplanken, B., Wang, C. E., Trafimow, D., & Woolf, K. (2007). Mental habits: Metacognitive reflection on negative self-thinking. Journal of Personality and Social Psychology, 92(3), 526–541.

Webb, T. L., Miles, E. M., & Sheeran, P. (2012). Dealing with feeling: A meta-analysis of the effectiveness of strategies derived from the process model of emotion regulation. Psychological Bulletin, 138, 775-808. doi:10.1037/a0027600

Webb, T. L., Schweiger Gallo, I., Miles, E. M., Gollwitzer, P. M., & Sheeran, P. (2012). Effective regulation of affect: An action control perspective on emotion regulation. European Review of Social Psychology, 23, 143-186. doi:10.1080/10463283.2012.718134

Webb, T. L., & Sheeran, P. (2008). Mechanisms of implementation intention effects: The role of goal intentions, self-efficacy, and accessibility of plan components. British Journal of Social Psychology, 47, 373–395. doi:10.1348/014466607X267010

Webb, T. L., Sheeran, P., & Luszczynska, A. (2009). Planning to break unwanted habits: Habit strength moderates implementation intention effects on behavior change. British Journal of Social Psychology, 48, 507-523. doi:10.1348/014466608X370591

Williams, L. E., Bargh, J. A., Nocera, C. C., & Gray, J. R. (2009). The unconscious regulation of emotion: Nonconscious reappraisal goals modulate emotional reactivity. Emotion, 9(6), 847–854. doi:10.1037/a0017745

Witte, K. (1992). Putting the fear back into fear appeals - the extended parallel process model. Communication Monographs, 59(4), 329–349.

Wood, W., & Neal, D. T. (2007). A new look at habits and the habit-goal interface. Psychological Review, 114(4), 843–863. doi:10.1037/0033-295X.114.4.843

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