

# Autonomy can support affect regulation during illness and in health

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## Abstract

The benefits of autonomy to self-regulation, health, and well-being are well established. However, relatively few studies have investigated how autonomy might influence affect regulation. In this commentary, we argue that autonomy is an important motivational factor that interacts with affect regulation and may be particularly relevant in health contexts, such as cancer, that can limit individual autonomy. We describe the relationship between autonomy and affect regulation and illustrate ways in which autonomy can be supported broadly as well as during various phases in the cancer trajectory.

## Keywords

affect, autonomy, cancer, health, regulation, self-determination

The psychological experience of autonomy facilitates self-regulation and is associated with improved health and well-being (Ryan and Deci, 2000; Ryan et al., 2006). Despite extensive research on the effects of autonomy on self-regulation, few studies have focused directly on the relation between autonomy and self-regulation of affect. Although autonomy is important regardless of health status, it may be particularly important in the context of cancer and other diseases that limit individual's autonomy. Affect regulation is a particularly valuable tool for people experiencing chronic illnesses given the new and varying affective experiences that often coincide with illness; autonomy can act as a “force multiplier” in this context by amplifying the efficacy of affect regulation.

In their target article, Kangas and Gross (2017) articulate the role that affect regulation can play across the cancer continuum. In this article, we expand upon their argument by describing the role that autonomy plays in affect

regulation generally and in the context of cancer specifically. We define autonomy and describe how it might influence affect regulation, explore ways that autonomy can be supported in the cancer continuum and who might benefit most from autonomy support, and name outstanding questions and future directions.

## What is autonomy?

Behavior can be described as autonomous when it is self-initiated and self-regulated. Within self-determination theory (Deci and Ryan, 2000), autonomy is characterized as a basic psychological need and a primary driving force

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for behavior. In this framework, autonomy is described as “the organismic desire to self-organize experience and behavior and to have activity be concordant with one’s integrated sense of self” (Deci and Ryan, 2000: 231). Phenomenologically, *autonomous behavior* feels volitional and the perceived locus of causality is internal. When acting autonomously, individuals feel as if they have chosen to act and actions feel congruent with their goals and values. Consequently, self-knowledge and awareness of one’s own goals and values are key building blocks for acting autonomously. Actual control over a situation, however, is not necessarily a prerequisite for autonomy. Perceived control of the situation or some aspect of it, such as one’s emotional response, can be sufficient to induce a sense of autonomy. Autonomous behavior contrasts with *controlled behavior*, in which individuals feel pressured or coerced into acting a particular way, and the perceived locus of causality is external. Along this continuum from autonomous to controlled behavior, behavioral motivation ranges from intrinsic to extrinsic. We use the term “autonomous motivation” to describe motivation that underlies autonomous behavior.

Self-determination theory is not the only theoretical framework to suggest a role for autonomy in self-regulation. Within the clinical literature, motivational interviewing (Hettema and Hendricks, 2010) is often used in addiction treatment to help people identify intrinsic motives for behavior change. One goal of acceptance and commitment therapy (Hayes, 2004) is to draw a connection between behavior and (intrinsic) values. A full review of these and other literatures that emphasize autonomy is beyond the scope of this brief commentary; we mention them here to underscore that autonomy has been linked to self-regulation in multiple fields and domains.

## How might autonomy support affect regulation?

There is strong evidence that autonomy can be a “force multiplier” of self-regulation in other domains (for reviews, see Deci and Ryan, 2000;

Ryan et al., 2006, 2015), but the literature has yet to explore how autonomy could promote affect regulation. Integrating findings within the health domain, one meta-analysis of 184 independent datasets showed that autonomy supportive healthcare environments were associated with increased perceived autonomy, intrinsic motivation, and self-regulation (Ng et al., 2012). Autonomy supportive environments were associated with positive effects on quality of life, vitality, and positive affect, and negative effects on anxiety, depression, and negative affect. In addition, autonomy support was associated with small positive effects on health behavior change, such as smoking abstinence, exercise, and weight loss. Experimental research suggests that autonomy supportive environments facilitate self-regulation through increased attention and engagement (Legault and Inzlicht, 2013), and that autonomous self-regulation is associated with fewer and weaker temptations during goal pursuit (Milyavskaya et al., 2015). Integrating these findings with models of self-regulation that emphasize the role of relative subjective value in regulatory decisions (Berkman et al., 2017; Milyavskaya and Inzlicht, 2017), autonomy may facilitate self-regulation by increasing the subjective value of key decision features. For example, if a person is autonomously motivated to eat healthfully, she might increase the weight of the health-relevant features of the options when ordering lunch, perhaps tipping her decision in favor of a salad over a burger.

Intriguingly, decisions about whether and how to engage in affect regulation is thought to operate through a similar valuation process (Gross, 2015). An overlap in the mechanisms of self-regulation on one hand and affect regulation on the other suggests that if autonomy can bolster one, then it might also facilitate the other. In the extended process model of emotion regulation (Gross, 2015), various features of the emotional situation (e.g. the strength of the emotion, the perceived effort of regulating, the desire to regulate) are assigned subjective value weights that are integrated during valuation. As during other self-regulatory decisions, autonomy might increase the subjective value of

autonomy-relevant features of the choice. For example, if an individual is autonomously motivated to strive for equanimity, the subjective value of controlling her emotions is probably strong, increasing the likelihood that she will choose to regulate her emotions. On the other hand, if an individual feels only external pressure to control her emotions, the subjective value of control might not be strong, decreasing the likelihood of regulation. Motives also contribute to the development of emotion regulation goals and vary in their degree of autonomy (Tamir, 2016). Whereas hedonic motives, such as minimizing pain and maximizing pleasure, are generally thought to be autonomous, instrumental motives may be more or less autonomous depending on the context. For example, the social motive to reduce the emotional burden on friends may result in the perception of external pressure to suppress sadness, whereas the motive to connect with peers may result in autonomous motivation to express sadness and signal the need for social support.

According to self-determination theory, motives that are relatively more autonomous should be associated with more successful emotional expression and regulation. Autonomous motivation has been linked to more adaptive emotional expression (Weinstein and Hodgins, 2009). Greater autonomy support from parents can facilitate healthy development of emotion regulation skills during adolescence (Roth and Assor, 2012). On the other end of the spectrum, controlled motivation has been associated with avoidant behaviors and anxiety (Castella et al., 2017; Elliot and Sheldon, 1998; Ryan and Connell, 1989).

## How can autonomy be supported?

Autonomy can be supported in a variety of ways by individual would-be regulators and their social network and care providers. Broadly speaking, autonomy supportive environments are characterized by other people listening to the individual, acknowledging his or her emotions, and taking his or her perspective (Grolnick et al., 1997; Reeve and Jang, 2006). It is also

important that supportive others provide meaningful choice, encourage self-initiation, and refrain from pressuring or coercing individuals to behave in particular ways. In healthcare settings, care providers can further support autonomy by soliciting patients' perspectives and acknowledging their emotional experience before making medical recommendations, and by providing concrete rationales after making them (Patrick and Williams, 2012). These practices are the cornerstone of patient-centered care and facilitate shared decision-making, which is associated with higher trust, better mental well-being, and greater satisfaction with the quality of care (Barry and Edgman-Levitan, 2012; Charles et al., 1997; Epstein and Street, 2007; Kehl et al., 2015; Lee and Lin, 2010). With respect to affect, others can support autonomy by not compelling individuals to experience, express, or regulate their emotions in any particular fashion. On an intrapersonal level, autonomy can also be supported by increasing self-knowledge and awareness of one's own values and goals (Weinstein et al., 2013). Individuals can support their own regulatory autonomy by exploring and enumerating their emotional goals and choosing to utilize regulation strategies that are aligned with these goals.

In the context of cancer, patient autonomy is a key feature of patient-centered care and has been described elsewhere (Epstein and Street, 2007). One reason why autonomy support plays a prominent role in this framework is because chronic illnesses, such as cancer, can be quite autonomy limiting: radical lifestyle changes are often required and individuals ultimately have little control over how their illness progresses. Patient-centered care also presents opportunities for autonomy support that comport with the affect regulation in cancer (ARC) framework. Following the examples presented by Kangas and Gross (2017), we illustrate how autonomy is limited during illness and how autonomy support can be applied within the ARC framework to bolster affect regulation. Suppose Tom feels afraid, anxious, and distracted upon noticing a painful lump and avoids visiting the doctor because he is scared he has cancer. To support his own autonomy, he might reappraise getting

screened as an opportunity to take control of the situation or reflect on how diagnostic screening is aligned with his values of being proactive and level-headed. Individuals in his social network could support him by acknowledging his fear and anxiety, affirming that he is not alone, and asking how he wants to be supported. After being screened, Tom is diagnosed with stage 3 cancer in the head and neck. His healthcare providers can support his autonomy by communicating the diagnosis and associated risk in terms Tom understands, and supporting him emotionally when doing so. They can take the time to understand Tom's perspective, emotional experience, and values to engage in shared decision-making to develop a treatment plan together. If Tom begins to withdraw socially to avoid discussing his cancer, his network can respect his desire not to talk about cancer and avoid pressuring him to express or control his emotions in particular ways. Supporting Tom's autonomy in each of these ways—and many others beyond these—is hypothesized to not only improve his overall sense of agency and control throughout his cancer trajectory, but also bolster his capacity for affect regulation.

### **For whom might autonomy support for affect regulation be most beneficial?**

Autonomy has been characterized as a basic psychological need (Deci and Ryan, 2000), but its benefits likely vary across people. Environments can be more or less autonomy supportive, so individuals who live in low-autonomy environments are likely to benefit from compensatory autonomy support. Individuals themselves differ in the degree to which they feel agentic, take ownership of their actions, and resist external pressures (Weinstein et al., 2012). Those who tend to be highly autonomous may benefit less from autonomy support than those who are lower in trait autonomy. Individuals also differ in their need for autonomy (Schüler et al., 2014) and preference for choice (Iyengar and Lepper, 1999, 2000; Kehl et al., 2015), so a lower baseline need for

autonomy might reduce the benefits of autonomy support.

People also differ in their use of affect regulation strategies. For example, individuals differ in their habitual use of reappraisal and suppression (Gross and John, 2003). As noted above, various motives shape emotional goals, and individuals might differ in their tendency to be guided by particular motives (Tamir, 2016). For example, some individuals might be driven more by hedonic motives or by instrumental motives, such as fitting in, displaying dominance, and creating consensus. Implicit theories of emotion also vary across individuals (Tamir et al., 2007) and contribute to regulation strategy choice (Livingstone et al., 2018). Perceptions of the controllability of situations can also modulate the quality of affect regulation (Troy et al., 2013). Individuals who believe emotions are more malleable also feel greater self-efficacy to regulate their emotions (Tamir et al., 2007). Together, these results suggest that altering implicit theories of emotion to emphasize the potential for personal control over emotions is a potential avenue for autonomy support.

Following this literature, we can generate several predictions about which individuals might benefit most from autonomy support. With respect to autonomy generally, individuals who experience chronic autonomy frustration, exhibit low autonomous functioning, have a strong need for autonomy, or preference for choice are likely to benefit from autonomy support. Cancer and other chronic illnesses are likely to reduce autonomy during treatment, so patients might particularly benefit from autonomy support during this time. With respect to affective autonomy, individuals who tend to engage in avoidance or rumination when lacking control, have strong tendencies for instrumental social motives when forming emotional goals, or feel pressured to engage in certain regulatory strategies (e.g. suppression) would benefit from affective autonomy support. These predictions are expected to apply to an even greater degree in the context of chronic disease.

## Are there drawbacks to autonomy support?

A key feature of autonomy support is providing choice. Although choice typically promotes autonomy, in some cases choice may undermine it (Schwartz, 2000; Vohs et al., 2008). For example, people often prefer not to have a choice when decisions are difficult or the options are unattractive (Botti and Iyengar, 2004; Iyengar and Lepper, 2000). This is also true of medical decisions (e.g. decision fatigue; Pignatiello et al., 2018). Choice may also be detrimental when it does not provide actual agency or when individuals feel pressured to choose a specific option (Legault and Inzlicht, 2013; Moller et al., 2006; Sullivan-Toole et al., 2017). Furthermore, in affect regulation, choice can actually make regulation less effective (Bigman et al., 2017; Cosme et al., 2018). Although there are contexts in which choice may have deleterious effects, choices should support autonomy when they are informed, aligned with personal preferences, and facilitate personal control. In addition, choice is not the only way to support autonomy. There is a variety of other important dimensions that support autonomy, including perspective taking, acknowledgment of subjective and emotional experience, and avoidance of attempts to control, pressure, or coerce. Even when treatment options are limited, care providers can enhance patients' autonomy by, for example, empathizing with them and working with them to determine a treatment plan that is aligned with their values.

## Outstanding questions and future directions

We have argued that autonomy is a key motivational factor that interacts with affect regulation in interesting ways. This idea is only beginning to be investigated, so there are numerous outstanding questions. There are basic questions that could be studied in healthy populations, including how does autonomy support affect choices about regulation strategy and success?

Are certain affect regulation strategies more consistent with autonomous motivation than others? Does supporting autonomy globally improve affect regulation or does support need to be focused on affective autonomy specifically? There are also outstanding applied questions, the most important of which involve identifying barriers to implementing and scaling autonomy supportive practices throughout the cancer control continuum. Longitudinal studies in cancer patients will help answer questions such as which types of autonomy support are most effective for the greatest number of people? Can some strategies that are effective in healthy populations backfire in patient populations? How can care providers and family members best be trained in delivering effective autonomy support? We hope that this commentary provides a strong rationale to answer these questions as well as inspiration to do so.

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