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The paradoxical effect of controlling context on intrinsic motivation in another activity

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ABSTRACT

Controlling instructions typically undermine intrinsic motivation. However, in line with an autonomy restoration process, we hypothesized that prior exposure to a controlling context could increase intrinsic motivation displayed in a subsequent task if this second task is devoid of autonomy threats. A correlational study in educational context provided support for this effect by showing that students reported more interest in their music class when it was preceded by a class that was controlling. This effect was replicated in an experiment wherein participants who learned to play a game in a controlling context reported more interest in a second game than those who learned the first game in a neutral context. However, this effect disappears when the two tasks were done in a similar environment. Overall, this suggests that autonomy deprived students would display more intrinsic motivation in a subsequent task if this task gives a glimpse of autonomy satisfaction.

Intrinsic motivation refers to doing an activity for its own sake, or in other words, for the natural interest and enjoyment that comes with this activity. The students' level of intrinsic motivation has been shown to be one of the most crucial factors in learning and academic success. This is explained by the fact that this psychological state is associated with many positive cognitive, affective, and behavioral outcomes such as focused attention, higher cognitive functioning, positive affects, enjoyment, creativity, and persistence (e.g., Benware & Deci, 1984; Cordova & Lepper, 1996; Wild, Enzle, & Hawkins, 1992). Therefore, an important endeavor in educational psychology has been to identify where does intrinsic motivation come from and what are the elements that can boost interest in a task. Some research has focused on the content of the task itself, for example, showing that humorous, meaningful or game-related tasks raise interest and intrinsic motivation (Bergin, 1999; Mitchell, 1993). Meanwhile, other research has focused on the influence of the contextual demands showing that the same activity can be considered in completely different ways and generate different levels of intrinsic motivation depending on the context in which it occurs (e.g., Tang & Baumeister, 1984).

1. Self-determination theory and need restoration

Research from the self-determination theory framework (SDT; e.g., Deci & Ryan, 2000, 2002) has been especially useful in understanding how situational or contextual factors can influence one's level of intrinsic motivation for a task. According to SDT research, when a task is performed in a controlling environment that threatens the individuals' need for autonomy, intrinsic motivation and interest for the task itself will decline (Ryan & Deci, 2000; Tsai, Kunter, Lüdtke, Trautwein, & Ryan, 2008). The need for autonomy refers to the individual's propensity toward self-governance, and coherence in an organism's behavioral aims (Deci & Ryan, 2000). It has been shown to be a fundamental need that is crucial for individuals' optimal functioning and well-being (see Deci & Ryan, 2002; Ryan & Deci, 2006). Hundreds of studies have demonstrated that when individuals are exposed to contexts that thwart their autonomy (in other words, a controlling context), a wide array of negative outcomes follow, such as low performance, lack of effort, increased negative affect, and loss of interest (e.g., Valås & Søvik, 1994 ; see also Reeve, 2009, for a review in the educational domain). A context is perceived as controlling when people feel restricted and coerced by environmental forces toward specific outcomes (Deci & Ryan, 1987). The contextual elements that make an environment controlling have been well identified in the literature (Deci & Ryan, 1987; Reeve, 2009; Reeve & Jang, 2006).

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As such, deadlines (e.g., Amabile, DeJong, & Lepper, 1976), surveillance (e.g., Enzle & Anderson, 1993), tangible rewards (Deci, Koestner, & Ryan, 1999), orders and directives (e.g., Reeve, Bolt, & Cai, 1999), evaluation (Schaffner & Schiefele, 2007) have all been shown to thwart individuals' need for autonomy. It is important to underline here that contexts that are controlling are not necessarily the same as contexts that are not autonomy supportive (Deci & Ryan, 1985; Soenens et al., 2007). Contexts that are not autonomy supportive or low in autonomy support are contexts that do not provide choice, that do not provide rationale when choice is limited or contexts that generally do not support volitional actions or initiatives (Soenens et al., 2007). Results have demonstrated the existence of a high negative correlation between controlling context and autonomy support (Soenens et al., 2007). This correlation supports the proposition that it is theoretically impossible to feel that autonomy is supported and hindered at the same time on a given moment.

Until recently, the consequences of being exposed to a controlling context were closely associated to the negative effects that occur immediately following the dissatisfaction of the need for autonomy, as if individuals passively accepted the autonomy loss and its consequences. However, given that it has been shown that experiencing autonomy is crucial for optimal functioning (Deci & Ryan, 2000; Ryan & Deci, 2006), it is hard to believe that people would accept autonomy thwarting passively without any defensive reaction. Since preliminary work by Hull (1943), it has been suggested that living organisms have regulatory process to maintain a state of balance of their fundamental needs. Recent conceptualizations also indicate that psychological needs should elicit active responses aimed at readjusting low levels of satisfaction of one's need (Baumeister & Leary, 1995; Fiske, 2004; Sheldon, 2011). In this perspective, the hypothesis of a restoration process for the need for autonomy has been recently tested. This hypothesis suggests that autonomy deprived participants would invest resources and motivation in an attempt to regain an acceptable level of autonomy satisfaction. In their research, Sheldon and Gunz (2009) investigated if the need for autonomy along with the other needs postulated by SDT (i.e., competence and relatedness) creates a motivation to be restored when thwarted. In two studies, they used questionnaires to assess need satisfaction as well as the desire to experience each of the needs. They found that need satisfaction for each of the needs was negatively associated with the desire to experience that particular need. For example, participants who were low in autonomy need satisfaction were more likely to say that they desired autonomy-increasing experiences. Radel, Pelletier, Sarrazin, and Milyavskaya (2011) provided further evidence for the autonomy restoration process and for its immediate appearance after autonomy deprivation. In two studies, participants first did a game-related task in either a neutral or in a controlling context, which included many directives, commands, deadlines, and surveillance. Immediately after, all participants completed a cognitive task on a computer that was designed to assess their perceptual readiness (Study 1) or implicit approach tendency (Study 2) for autonomy related cues. The results of these studies indicated that participants who were exposed to the controlling context detected autonomy related cues faster in a lexical decision task (Study 1) and expressed more approach behaviors toward autonomy related cues in a manikin task assessing automatic behavioral predispositions (Study 2) than participants who did the first task in a neutral context. In a third study, the authors also found that participants exposed to an autonomy threat showed more autonomy and conformed less than baseline participants in a judgment task, relying more on their personal standards to make their judgment. The fact that individuals strive to regain autonomy rather than passively accepting the loss resulting from autonomy deprivation can give rise to new research perspectives. Once individuals are no longer exposed to the controlling context, they should display strategies to restore satisfaction/fulfillment of their need for autonomy.

2. The present research

The aim of this research was to extend research on the consequences of autonomy deprivation. Given that a few recent studies has shown that people are more inclined to seek to restore satisfaction of their need for autonomy when this need is deprived (e.g., Radel et al., 2011; Sheldon & Gunz, 2009), we proposed that one strategy to restore satisfaction of this need could be to engage in another activity to make up for the loss of autonomy in a first activity. In other words, if one is in a state of autonomy deprivation and comes upon an activity that does no longer present any controlling features, one's intrinsic motivation in this activity could possibly be increased as this activity could represent an opportunity to satisfy the need for autonomy previously thwarted. Our proposition is in agreement with Deci and Ryan's (1985) assumption that intrinsic motivation is greatly determined by the degree to which an activity can provide satisfaction for the need for autonomy. Similarly, Krapp (2005) indicated that a system of basic needs including the need for autonomy provides continual signals affecting emotional experience, which in turn determines the level of interest. Krapp (2005) also indicated that individuals are not necessarily aware of this. Rather, they simply experience the resulting emotions without necessarily being aware of the determinants of their interest. This is in congruence with the findings of Radel et al. (2011), which showed that participant's responses relied more on automatic guidance than on individuals' reflection and conscious intention. Thus, an activity that allows individuals to express their need for autonomy would lead to greater intrinsic motivation and interest, especially when individuals desire to regain their autonomy. This reasoning led us to hypothesize that autonomy-thwarting environments, or controlling contexts, could have a paradoxical effect on intrinsic motivation in a subsequent task. By depriving individuals of their autonomy, it could provide a motivational force that could lead them to engage in a subsequent activity with heightened intrinsic motivation.

In order to test this prediction, two studies were carried out. While the first study was a correlational study carried out in a real educational setting, Study 2 was an experimental study conducted in the lab. As such, this complementary study package brings both internal and ecological validity. Given that the designs of the two studies are quite distant, we measured the main variables (i.e., controlling context and intrinsic motivation) in the same way in order to facilitate the comparison between the two studies.

The aim of the first study was to test whether such a paradoxical effect of controlling context on the level of intrinsic motivation for a following task could be observed in a real life context. In order to do this, we measured students' perceptions of autonomy satisfaction and intrinsic motivation in two consecutive classes in high school.

The second study was conducted in the laboratory. It involved an experimental design with random assignment to test for the existence of a causal relation between the controlling context experienced in a first activity and the intrinsic motivation displayed in a subsequent activity. Given that an important element of our proposal is that an increase in intrinsic motivation will only occur if individuals previously exposed to a controlling context expect some sources of autonomy satisfaction in the subsequent activity, Study 2 also aimed to test this question by manipulating indirectly the participants' expectation of autonomy in the second activity. More specifically, although the context of the second activity did not include objective controlling features, we manipulated the