Organizational Behavior and Human Decision Processes 138 (2017) 1–14

Contents lists available at ScienceDirect

Organizational Behavior and Human Decision Processes

journal homepage: www.elsevier.com/locate/obhdp

The dynamic effects of subconscious goal pursuit on resource allocation, task performance, and goal abandonment

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ARTICLE INFO

Article history:
Received 4 February 2015
Revised 4 October 2016
Accepted 9 November 2016
Available online 19 November 2016

Keywords:
Goal setting
Subconscious goals
Subconscious self-regulation
Working memory capacity
Resource allocation
Goal abandonment

ABSTRACT

We test two potential boundary conditions for the effects of subconscious goals—the nature of the goal that is activated (achievement vs. underachievement) and conscious goal striving. Subconscious achievement goals increase the amount of time devoted to skill acquisition, and this increase in resource allocation leads to higher performance when conscious goals are neutral. However, specific conscious goals undermine the performance benefits of subconscious achievement goals. Subconscious underachievement goals cause individuals to abandon goal pursuit and this effect is mediated by task performance. Difficult conscious goals neutralize the detrimental effects of subconscious underachievement goals but only if implemented before performance is undermined. Overall, these results suggest that subconscious achievement goals facilitate task performance, subconscious underachievement goals trigger goal abandonment, and difficult conscious goals moderate these effects depending on the level of resource allocation and timing of goal implementation.

1. Introduction

Over a thousand studies have demonstrated the benefits of goal setting (Locke & Latham, 1990, 2002). Goals are instrumental for directing attention, energizing effort, and increasing persistence, ultimately leading to higher performance. Yet, this stream of research and practical application has focused almost exclusively on consciously held goals, which are goals that can be verbalized and exert their effects via the intentional regulation of behavior. An emerging body of research, however, suggests that subconscious goals are as influential as conscious goals and may prove superior for guiding behavior when information processing resources are scarce (Bargh, Gollwitzer, Lee-Chai, Barndollar, & Trötschel, 2001; Chartrand & Bargh, 2002; Latham, Stajkovic, & Locke, 2010).

Research that has examined subconscious goals to date has been primarily inductive (Stajkovic, Locke, & Blair, 2006). As noted by Latham et al. (2010), these studies have demonstrated the effectiveness of subconscious goals but there is not a fully developed theory to explain the effects. An important step in theory building involves identifying boundary conditions for a phenomenon (Locke, 2007). Although recent work has begun to examine the boundary conditions for subconscious thought (Payne, Samper, Bettman, & Luce, 2008), we know relatively little about the conditions under which subconscious goals have limited, or even negative, effects on performance. Indeed, Dijksterhuis (2014, p. 72) recently argued that research in this area "should pay more attention to the systematic investigation of boundary conditions and to more precise theorizing."

The purpose of this study is to examine two potential boundary conditions for the effects of subconscious goals. First, subconscious goals research has typically used achievement-oriented words (e.g., compete, succeed) or images (e.g., a woman winning a race) to prime subconscious achievement goals, defined as the automatic arousal of mental representations related to striving, exerting effort, and prevailing (e.g., Shantz & Latham, 2009; Stajkovic et al., 2006). Although consistent with the prevailing notion that subconscious goals are "generally functional, beneficial, positive processes" (Chartrand & Bargh, 2002, p. 34), focusing exclusively on achievement ignores the fact that people are exposed to a variety of environmental stimuli, some of which have the potential to prime maladaptive behavior. For example, priming can trigger indulgence (e.g., Zemack-Rugar, Bettman, & Fitzsimons, 2007), disruptive social behaviors (e.g., rudeness, hostility, Bargh, Chen, & Burrows, 1996), and other unhealthy behaviors (e.g., increased alcohol consumption, Carter, McNair, Corbin, & Black, 1998). In the workplace, employees are regularly exposed to lazy and under-

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http://dx.doi.org/10.1016/j.obhdp.2016.11.001
0749-5978/

performing colleagues, online content related to failing, relaxing, and slacking from work, and other environmental stimuli that have the potential to activate subconscious underachievement goals. We define subconscious underachievement goals as the automatic arousal of mental representations related to laziness, sluggishness, and listlessness. Accordingly, we extend the subconscious goals literature by examining how individuals modify their behavior over time in response to changing environmental cues related to both achievement and underachievement.

Second, recent research has found that performance can be enhanced by combining subconscious achievement goals with conscious goals (Shantz & Latham, 2009; Stajkovic et al., 2006). This finding has potentially important applied implications. For example, Stajkovic et al. (2006) suggested that it may be possible to increase sales performance by combining the routine practice of setting conscious sales goals with sales training that is seeded with appropriate prime words (e.g., sell, achieve, produce). In addition, employees are often assigned difficult performance objectives (e.g., increase sales) while simultaneously being exposed to a variety of stimuli (e.g., other employees, online content) that can prime different types of subconscious goals. As Shantz and Latham (2009, p. 11) state, "The number of competing stimuli in a work setting, and the demands placed by management on employees for high productivity may vitiate the effect of a primed goal that is typically found under laboratory conditions." The studies that have examined the joint effects of subconscious and conscious goals have focused on tasks where individuals have already attained proficiency. In contrast, the current study examines the effects of subconscious and conscious goals for a task that requires individuals to devote substantial cognitive resources to knowledge and skill acquisition. Under such conditions, a difficult conscious goal may undermine, rather than enhance, the effects of a subconscious achievement goal by diverting cognitive resources from skill acquisition to goal regulation (Kanfer & Ackerman, 1989; Winters & Latham, 1996). At the same time, a challenging conscious goal may help to neutralize or inhibit the undermining effects of subconscious underachievement goals (e.g., Légal, Meyer, & Delouveé, 2007; Shah, Friedman, & Kruglanski, 2002). Hence, we examine conscious goal striving as a potential boundary condition for the effects of subconscious goals in cognitively demanding environments.

To examine these boundary conditions, we propose a process model of the effects of subconscious goals on three behavioral outcomes—resource allocation (i.e., the amount of time devoted to knowledge and skill acquisition), task performance (i.e., learning performance), and goal abandonment (i.e., attrition from training)—and examine how conscious goals moderate this process. Furthermore, we adopt a dynamic perspective that examines how this process unfolds over time and how individuals modify their behavior in response to changing conscious and subconscious goals. Adopting a dynamic perspective is invaluable due to mounting evidence that individuals repeatedly decide how to allocate time and resources throughout the workday and resource allocation decisions evolve in response to performance feedback and performance expectancies (Schmidt & DeShon, 2007; Sitzmann & Yeo, 2013). We add to this literature by examining whether task engagement also evolves in response to changing environmental stimuli. Finally, an experimenter has been present during task performance in prior studies of subconscious goals (see Latham & Piccolo, 2012, for an exception), which has led to concerns about demand effects and experimenter bias (Latham et al., 2010). The current study was conducted entirely online, alleviating these concerns.

In the following section, we provide a theoretical overview of differences in the information processing requirements of subconscious and conscious goals. In addition, we address how subconscious goals are activated and their implications for behavior and implicit processes.

2. Theoretical overview of subconscious and conscious goals

Goal setting theory argues that specific difficult goals result in higher performance than neutral (i.e., "do your best") or easy goals (Locke & Latham, 1990, 2002). Goals affect performance through their influence on the direction, intensity, and persistence of effort and are most effective when individuals are committed to their goals and receive feedback on their performance (Locke & Latham, 2002). Often goals focus on performance, or the level of task proficiency that one should strive to attain. However, under certain conditions—such as during complex tasks—it is advantageous to assign learning (rather than performance) goals, which focus on the acquisition of ideas or task strategies (e.g., Dishon-Berkovits, 2014; Masuda, Locke, & Williams, 2015; Nahrgang et al., 2013; Tasa, Celani, & Bell, 2013). Consistent with recent research examining the relationship between conscious and subconscious goals (e.g., Stajkovic et al., 2006), we focused on performance goals in the current research. This focus permits examining whether conscious performance goals shield against the potentially deleterious effects of subconscious underachievement goals. Furthermore, it is practically important to examine performance goals due to their widespread use within organizations (Ordóñez, Schweitzer, Galinsky, & Bazerman, 2009). As Seijts and Latham (2005, p. 129) note, "Today's workforce continues to be under intense pressure to produce tangible results. They are in 'performance mode'."

The term subconscious suggests that individuals are unaware of both their goals and the fact that they have been affected by the environment (Latham et al., 2010). Subconscious goals operate automatically—without intention, guidance, and awareness—and are triggered by environmental cues (Aarts & Dijksterhuis, 2003; Bargh, 1990; Chartrand & Bargh, 2002), which is akin to background goals in goal systems theory (Kruglanski et al., 2002). The automatic nature of subconscious goals suggests that they do not require an act of conscious choice to be put into motion, and, once activated, subgoals, plans, and strategies for goal attainment are automatically pursued outside conscious awareness (Bargh et al., 2001; Gollwitzer & Bargh, 1996). Subconscious goals stimulate implicit motivation—which is measured indirectly through projective techniques—whereas conscious goals stimulate explicit motivation—which is typically assessed with self-report measures (Latham et al., 2010). Implicit and explicit motivation have little or no overlap in variance and tap different facets of achievement motivation (Collins, Hanges, & Locke, 2004; Schultheiss & Brunstein, 2001; Spangler, 1992).

Subconscious goals are manipulated through priming, which refers to the temporary subconscious activation of a mental representation by cues in the environment (Bargh & Chartrand, 2000; Shantz & Latham, 2009). Two techniques are used to activate subconscious goals: subliminal and supraliminal priming (Latham et al., 2010; Stajkovic et al., 2006). Subliminal priming involves presenting a stimulus rapidly so that it is not consciously perceived and then measuring how the stimulus affects behavior. Supraliminal priming involves exposing individuals to messages in the form of words or pictures, but in a manner where the relationship to the primary task is not readily obvious (Latham et al., 2010). For example, Latham and colleagues used an image of a person winning a race to activate subconscious achievement goals and found that priming achievement resulted in higher performance, relative to a no subconscious goal condition, and the vast majority of people were unaware that they had been primed (Latham & Piccolo, 2012; Shantz & Latham, 2009, 2011).