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# Different strokes for different folks: Effects of regulatory mode complementarity and task complexity on performance☆

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ABSTRACT

We examine how task features interact with individuals' regulatory modes in determining performance. Effective goal pursuit normally occurs when high locomotion (the regulatory mode concerned with motion from state to state) and high assessment (the regulatory mode concerned with critical evaluation) work together (Kruglanski et al., 2000). However, there may be situations in which this high–high combination is unnecessary or even detrimental to good performance. We hypothesized that on simple tasks, high locomotion and low assessment should lead to the best performance; on complex tasks, however, high locomotion and high assessment should lead to the best performance. We tested these hypotheses in two empirical studies, one carried out in an organizational setting, the other in the lab. In the first study, we measured individuals' locomotion and assessment tendencies, asked them to rate the complexity of their daily work tasks, and obtained measures of their job performance from their supervisors. In the second study, we measured individuals' locomotion and assessment tendencies, manipulated the task complexity of an inbox task they had to complete, and measured their performance on that task. Both studies provided support for our hypotheses. These results offer important insights regarding the effects of regulatory mode on performance.



## 1. Introduction

Consider a brief tale of two friends. One of them, Michael, is always energetic and quick at his work. The other friend, Max, is also energetic and quick; in addition to this, Max also likes to methodically analyze his options and decide upon the best course of action before he starts. When they are given a task to complete, Michael begins right away and speeds through the task; Max, on the other hand, spends some time thinking deeply about the task and how to best complete it, then also gets going and completes the task quickly. It seems fairly straightforward to assume that Max (who focuses on both careful thought and swift action) will generally outperform Michael (who focuses only on swift action). But is this intuition correct?

In order to answer this question, it is essential to distinguish between two basic aspects of self-regulation: locomotion and assessment. Regulatory mode theory postulates that every act of self-regulation involves two components: evaluating which goal or means to select during goal pursuit, and committing energy to engaging in the chosen option (Higgins, Kruglanski, & Pierro, 2003; Kruglanski et al., 2000). These motivational components, or regulatory modes, are referred to as assessment and locomotion: assessment is concerned with comparison and evaluation, and locomotion is concerned with making progress toward a goal. The two regulatory modes can be measured as individual traits (Kruglanski et al., 2000) or manipulated as state variables (Avnet & Higgins, 2003). Furthermore, locomotion and assessment are assumed to be functionally independent, so that an individual can be high on both, low on both, or high on one and low on the other (Higgins et al., 2003; Kruglanski et al., 2000). An individual's regulatory mode can influence how she carries out a wide variety of activities in her daily life, ranging from the types of goals she selects (e.g.Mannetti, Pierro, Higgins, & Kruglanski, 2012; Orehek, Mauro, Kruglanski, & van der Bles, 2012) to the manner in which she pursues those goals (e.g. Avnet & Higgins, 2003; Orehek & Vazeou-Nieuwenhuis, 2013). The implications of each regulatory mode for goal pursuit will be elaborated in the following sections.

Locomotion is defined as "the aspect of self-regulation concerned with movement from state to state, and with committing the psychological resources that will initiate and maintain goal-related movement in a straightforward and direct manner, without undue distractions or delays" (Kruglanski et al., 2000, p. 794). As such, the essential motivation of individuals high on locomotion is to experience psychological

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movement. High locomotors emphasize "hurrying," "doing," and "getting on with it," since all of those allow them to avoid standing still and doing nothing (Higgins et al., 2003).

Previous research suggests that the locomotion orientation can influence many aspects of goal pursuit. For example, high locomotors avoid procrastinating on goals and tasks: locomotion is negatively associated both with scores on a procrastination scale (which measures the tendency to delay task initiation or completion), and with insurance workers' actual procrastination as measured over a three month period (Pierro, Giacomantonio, Pica, Kruglanski, & Higgins, 2011). High locomotors tend to complete tasks as quickly as possible (even when such a focus on speed comes at the expense of accuracy; Kruglanski et al., 2000; Mauro, Pierro, Mannetti, Higgins, & Kruglanski, 2009). For instance, when engaged in a proofreading task, high (vs. low) locomotors take significantly less time to finish the task (Kruglanski et al., 2000). High locomotors exhibit a greater ability to stay focused on a task and avoid becoming distracted: locomotion is positively associated both with perseverance (as measured by a scale tapping the ability to sustain effort in the face of diversity) and resistance to temptation (as measured by participants' reports of how likely they would be to put off studying for an important exam; Pierro et al., 2011). Individuals who are high on locomotion are better at managing the time they devote to their goals: high locomotors have an increased proficiency at setting goals and priorities, a greater preference for organization, and greater perceived control over their time (Amato, Pierro, Chirumbolo, & Pica, 2014). High locomotors are more likely to select high expectancy (vs. high value) options during goal pursuit; in other words, locomotors tend to select means which serve only one goal (and thus may have a greater expectancy of attaining that goal) rather than means which serve multiple goals (and may have a lower expectancy of attaining any one of them; Orehek et al., 2012). Individuals who are high (vs. low) on locomotion are more likely to follow through on initial goals they set (such as attending fitness classes; Mannetti et al., 2012). Lastly, when selecting a means to their goal, high locomotors prefer to make simultaneous evaluations of all possible alternatives (rather than engaging in a sequential series of comparisons; Avnet & Higgins, 2003). Thus, locomotion can influence goal pursuit in a wide variety of ways.

Assessment is defined as "the comparative aspect of self-regulation concerned with critically evaluating entities or states, such as goals or means, in relation to alternatives in order to judge relative quality" (Kruglanski et al., 2000, p. 794). The essential motivation of individuals high on assessment is to "make the right choice"; as such, high assessors are preoccupied with making comparisons and critical evaluations to ensure that they arrive at the correct decision before moving forward (Higgins et al., 2003).

Like locomotion, assessment can also impact various aspects of individuals' goal pursuit. For instance, individuals who are high on assessment tend to procrastinate on goals and tasks: assessment is positively correlated both with scores on a procrastination scale, and with insurance workers' actual procrastination as measured over a three month period (Pierro et al., 2011). High assessors are slower to complete tasks, but are also more accurate at those tasks (Kruglanski et al., 2000; Mauro et al., 2009). For example, high (vs. low) assessors were found to be significantly more accurate when completing a proofreading task (Kruglanski et al., 2000). High assessors also tend to have greater concern over potential mistakes during goal pursuit (measured with items such as "I should be upset if I make a mistake"), higher personal standards for their task performance (measured with items such as "I expect higher performance in my daily tasks than most people"), and greater doubts about whether they are making the right choice (measured with items such as "I tend to get behind in my work because I repeat things over and over"; Pierro et al., 2011). High assessors are more likely to select high value (vs. high expectancy) options during goal pursuit: they tend to choose means which serve multiple goals (and can thus produce more overall value in terms of the amount of goals they attain) rather than means which serve only one goal (and which therefore produce less overall value; Orehek et al., 2012). High assessors have a greater tendency to form behavioral goals (such as the goal to attend gym classes) based on perceived social norms (Mannetti et al., 2012). Lastly, high assessors prefer to select a means to their goal by making a sequential series of comparisons among the possible alternatives (rather than simultaneously evaluating all their options; Avnet & Higgins, 2003). In summary, previous research has shown that both assessment and locomotion regulatory mode are relevant to goal pursuit in a variety of domains.

As described earlier, regulatory mode theory posits that locomotion and assessment are independent; therefore, if an individual is low on one of the orientations, he will not necessarily be high on the other (Higgins et al., 2003; Kruglanski et al., 2000). This independence assumption implies that different combinations of locomotion and assessment can have very different effects on goal pursuit and attainment. Prior research on the interactive effects of locomotion and assessment has generally focused on the beneficial effects of being high in both (Kruglanski, Pierro, Mannetti, & Higgins, 2013). In this vein, individuals who are high in both locomotion and assessment have been shown to have higher GPAs (Kruglanski et al., 2000), greater chances of successfully completing an elite army training unit (Kruglanski et al., 2000), and better work performance (Pierro, Pica, Mauro, Kruglanski & Higgins, 2012). However, no previous studies have examined whether being high on both locomotion and assessment is *always* beneficial, or whether there are situations in which being high on both can actually be detrimental to performance. The aim of this paper is to address this gap in the literature by focusing on one potential moderator of the effects of regulatory mode on performance: task complexity.

Cognitive task complexity is defined as any attentional, memory, reasoning, or other information processing demands that are imposed by the structure of a task (Robinson, 2001). We therefore conceptualize task complexity as a function of objective task characteristics (March & Simon, 1958; Schwab & Cummings, 1976). Some characteristics of more (vs. less) complex cognitive tasks include a greater amount of information to process (Campbell, 1988; Robinson, 2001; Schroder, Driver, & Streufert, 1967), the presence of multiple ways to attain the goal (Terborg & Miller, 1978), uncertainty of outcomes (March & Simon, 1958), more task dimensions requiring attention (Schroder et al., 1967), and higher rate of information change (Schroder et al., 1967). Given that locomotors have been shown to exhibit a speed-accuracy tradeoff (in which high locomotors are faster, but high assessors are more accurate; Kruglanski et al., 2000), we suggest that individuals who are high only on locomotion, only on assessment, or on both locomotion and assessment may differ in their aptitude for completing tasks that differ on some of the aforementioned characteristics.

When a cognitive task involves less information processing, only a single way to achieve the goal, more certain outcomes, fewer dimensions that require attention, or a lower rate of information change (in other words, when the task is simple), it requires less thought to execute successfully (Campbell, 1988). As such, a simple task can be accomplished merely by starting it as soon as possible and moving continually toward its attainment. Individuals high on locomotion prefer to avoid procrastinating (Pierro et al., 2011) and tend to move continuously toward their goal, disliking obstacles or interruptions (Kruglanski, Pierro, & Higgins, 2015; Kruglanski et al., 2000). Thus, high locomotors should be particularly well-suited to performing simple tasks. On the other hand, individuals high on assessment tend to gather information extensively and compare many alternatives before coming to a decision (Kruglanski et al., 2000). Since simple tasks do not require such information gathering for optimal performance, high assessors are not necessarily well-suited to performing such tasks.

Tasks which include a greater amount of information to process, the presence of several ways to attain the goal, uncertain outcomes, many task dimensions that require attention, or a higher rate of information change (in other words, cognitively complex tasks) require extensive information gathering and processing (Campbell, 1988). As such,