Average personal goal pursuit profile and contextual achievement goals: Effects on students' motivation, achievement emotions, and achievement

Rosanda Pahljina-Reinić *, Svjetlana Kolić-Vehovec

Department of Psychology, University of Rijeka, Sveučilišna Avenija 4, 51000 Rijeka, Croatia

ABSTRACT

The aim of this study was to examine the effects of quasi-experimental goal conditions (mastery, performance-approach, combined mastery/performance-approach) on expository text learning task motivation, emotions, and achievement in a sample of students displaying the average all goal orientations profile. Participants were 143 Croatian high school students. Results revealed that the assignment of multiple mastery/performance-approach goals exerted the most adaptive pattern of results across the examined task-related outcomes. Implications for educational research and practice are discussed.

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1. Introduction

The achievement goal literature has highlighted *achievement goals* and *goal structures* as two distinct aspects of achievement goal theory that influence achievement-related behavior in educational settings. Achievement goals refer to the purposes for which a person engages in achievement behavior, while goal structures refer to messages in the environment that make certain goals salient (Linnenbrink, 2004). Evidence from both lines of research has helped to clarify the unique roles of goals and goal structures in student learning and achievement, while their combined impact accounting for learning outcomes has only recently been addressed to a greater extent.[1] Research on specifying whether and how personal goal pursuit may operate differently under varying contextual conditions is particularly relevant. Findings from interaction analyses indicated that goal structure can moderate the influence of personal goals (Murayama, Elliot, & Friedman, 2012).

An additional challenge for the integrative consideration of personal goals and goal structures relates to the assumption of the multiple goal perspective (Barron & Harackiewicz, 2001; Pintrich, 2000), which posits that students pursue multiple goals simultaneously. In recent years, research on multiple goal pursuit has increasingly employed a person-centered analytical approach that focuses on identifying naturally occurring combinations of goals at the level of the individual and classifies individuals into homogenous groups with similar profiles across the various goals (Niemivirta, 2002a). The employment of person-centered methods expanded the consideration of multiple goal endorsements beyond the high goal pursuit profiles commonly addressed in variable-centered research, since it also revealed the average all goals and low goal pursuit profiles as surprisingly prevalent and mostly maladaptive goal configurations (Wormington & Linnenbrink-Garcia, 2016).

Given the considerable need for additional insights regarding these understudied goal pursuits from both theoretical and applied viewpoints, the current study focused on a subsample of students showing an average all goals profile. We sought to examine the opportunities for optimizing learning outcomes in this personal goal pursuit group by addressing goals on a structural level of representation through altering the objective learning environment. Specifically, the purpose of this study was to examine how the assignments of different contextual goals for the completion of a learning task in actual classrooms relate to learning task outcomes in students pursuing the average all goals profile.

1.1. Theoretical background

The prevailing contemporary achievement goal classification refines the original mastery and performance goal dichotomy depending on the approach or avoidance focus (Elliot & McGregor, 2001; Elliot & Murayama, 2008). *Mastery-approach* goals orient the student toward gaining and developing competence, whereas *mastery-avoidance* goals

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* Corresponding author at: Department of Psychology, Faculty of Humanities and Social Sciences, University of Rijeka, Sveučilišna Avenija 4, 51000 Rijeka, Croatia.
E-mail addresses: rosanda@ffri.hr (R. Pahljina-Reinić), skolic@ffri.hr (S. Kolić-Vehovec).

[1] In general, empirical evaluations of the *direct effect model* (goal structures directly influence outcomes per se as well as over and above personal goals), *indirect effect model* (goal structures indirectly influence outcomes through their impact on personal goal adoption), and *interaction effect model* (goal structures moderate the influence of personal goals on outcomes) provided support for each of the models (Murayama & Elliot, 2009).

refer to the desire to avoid learning failures or skill decline. *Performance-approach* goals represent the concern for demonstrating competence relative to others, and *performance-avoidance* goals denote striving to avoid judgments of incompetence or failure. There is less evidence supporting the mastery-avoidance construct (Maehr & Zusho, 2009), which was not included in the current study. Additional empirical work focused on *work-avoidance* goals that refer to the aim of minimizing effort and avoiding challenges (Nicholls, Patashnick, & Nolen, 1985).

Extensive evidence has been accumulated concerning the relations of goals or goal orientations with achievement-related outcomes (for reviews, see Huang, 2011; Hulleman, Schrager, Bodmann, & Harackiewicz, 2010; Senko, Hulleman, & Harackiewicz, 2011). Mastery (approach) goals have been found to be beneficial in terms of higher intrinsic motivation and interest, values, self-efficacy, effort, persistence, and elaborative learning strategies, as well as higher levels of positive and lower levels of negative achievement emotions (Daniels et al., 2009; Diseth, 2011; Harackiewicz, Durik, Barron, Linnenbrink-Garcia, & Tauer, 2008; Wolters, 2004). However, mastery goals are often not directly related to academic achievement (Hulleman et al., 2010). In contrast, performance-approach goals have been shown to be beneficial in promoting higher levels of performance and achievement (e.g., Senko, Durik, Patel, Lovejoy, & Valentiner, 2013). Nonetheless, they have also been linked to maladaptive outcomes such as mild anxiety and the use of superficial learning strategies (Huang, 2011; Linnenbrink, 2005; Vrugt & Oort, 2008). Performance-avoidance and work-avoidance goals generally proved to be detrimental for many important academic outcomes (King & McInerney, 2014; Niemivirta, 2002b; Pekrun, Elliot, & Maier, 2009; Senko et al., 2011).

In terms of optimal motivation, the traditional mastery goal perspective contends that mastery goals are beneficial, while the performance-approach goals are maladaptive given that their costs outweigh their benefits across outcomes (Brophy, 2005; Midgley, Kaplan, & Middleton, 2001). In contrast, the multiple goal perspective asserts that pursuing both goals may be the most adaptive because it enables students to gain benefits for each type of goal (Pintrich, 2000; Senko et al., 2011). Barron and Harackiewicz (2001) identified four statistical patterns of data indicating possible combinations of these goals. These include an *additive pattern* in which both goals have positive main effects on a single outcome, an *interactive pattern* in which pursuing both goals simultaneously is more adaptive than endorsing either goal alone for a single outcome, a *specialized pattern* in which the two goals have positive effects but on different outcomes, and a *selective pattern* in which the effect of personal goals depends on the match with the contextual goal. Some empirical support exists for each of these patterns, but the strongest support was found for the specialized pattern (Hulleman et al., 2010).

The first comprehensive review of person-centered work conducted by Wormington and Linnenbrink-Garcia (2016) revealed ten profile types across 23 samples from 22 articles as the emerging combinations of approach and avoidance forms of mastery and performance goals and work-avoidance goals. This study found that apart from the students belonging to high goal pursuit profiles, one fifth of students belonged to low goal pursuit profiles, and nearly 40% of students to the profile characterized by average endorsement of all goals. These profiles were found to be consistently maladaptive in contrast to the majority of high goal profiles, with the average all goal profile being one of the least adaptive in terms of motivation, social/emotional well-being, engagement, and achievement. Furthermore, findings on the temporal stability of achievement goal profiles suggested that adolescents' profiles are rather stable over time. Tuominen-Soini, Salmela-Aro, and Niemivirta (2011, 2012) found 50% to 60% of students displaying stabile profiles over time.

Nonetheless, personal goal orientations are also context-sensitive and objective shifts in learning environments may influence goal adoption and actual achievement-related outcomes (Fryer & Elliot, 2008). Thereat, the endorsement of multiple goals implies that students can access and activate different underlying goal schemas depending on the task demands or the context (Barron & Harackiewicz, 2001; Pintrich, 2000).

Studies examining goal structures have primarily focused on mastery and performance goal structures (for reviews, see Kaplan & Maehr, 2007; Urdan, 2010). A *mastery goal structure* refers to a learning environment in which the instructional practices, task assignment, and evaluation procedure are structured to communicate to students that meaningful learning and understanding as well as putting effort in trying to attain personal improvement and absolute standards is valued. A *performance goal structure* reflects a learning environment that emphasizes learning as a means of achieving recognition of worth and extrinsic rewards and defines success in terms of outperforming others or surpassing normative standards.

Research findings suggest that mastery structures are beneficial for a wide range of adaptive motivational, emotional, and cognitive outcomes (e.g., higher intrinsic motivation and achievement), while the performance goal structure displays less desirable patterns of association with these variables (e.g., surface processing, self-handicapping strategies, decreased intrinsic motivation) and shows effects that are often weaker in magnitude (Lau & Nie, 2008; Murayama & Elliot, 2009; Urdan, 2010). Although in real classrooms, both mastery and performance goal messages are conveyed to varying degrees, implying that they might exert a combined influence on students' learning (Urdan, 2004; Wolters, 2004), only a few studies have examined the relation of multiple goal structures to learning-related outcomes (e.g., Linnenbrink, 2005).

Experimental studies on goal structures are intended to evoke objective changes in the learning environment by employing framing manipulations. Goal framing can be done by manipulating goal content, goal climate, or both (Kozlowski & Bell, 2006). Goal content is manipulated by assigning individuals a certain straightforward goal with an obvious purpose of the task at hand (e.g., Senko et al., 2013), while the goal climate is manipulated by changing the structure of achievement settings in order to influence how students approach achievement situations and select goals (e.g., Darnon, Butera, & Harackiewicz, 2007). As prior research utilized goal framing mainly in laboratory experiments using simple non-academic tasks, the current study focused on manipulating the goal climate or structure for the completion of a learning task using curricular material in actual classrooms.

Our study builds on and extends previous research in several ways. First, in contrast to more extensively utilized variable-centered research, this study is focused on multiple goal configurations and includes students with average levels of different goal orientations. Second, by examining how experimentally manipulated learning task goals relate to learning outcomes and including the multiple goal condition, the current study addresses the question of overreliance on students' perceptions of the classroom goal structure in the existing research (Urdan, 2010) and adds to the limited literature that includes multiple contextual goals. We acknowledge the relevance of potential interaction between personal goal profiles and contextual goals. However, considering the rather small size of our sample and the issue of low statistical power to detect interaction effects, the interactive model was not tested. Finally, given the recent calls to reduce the use of out-of-context measures, this study focuses on situation-specific measures of students' motivation, emotions, and achievement as a more real-time form of data collected across the completion of a learning task in actual classes. The three different outcome areas were chosen in order to adequately address the question of the adaptiveness of the contextually assigned goals as applied to the average goal pursuit students.

1.2. Overview of aims and hypotheses of the present study

The primary aim of the present research was to examine how contextually assigned goals relate to task-related motivation, emotions, and achievement in students pursuing the average all goals profile.