Communication

I Am Therefore I Do: Group Identification and Effort for the Achievement Goals

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Abstract: Relevant others (e.g., fellow group members) influence how goals and goal-directed behaviors are construed and valued. In turn, according to the "expectancy × value" model of motivated behavioral choice, people engage in goal-directed behaviors when they expect success and ascribe high values to a certain task. In this pilot study, we combine predictions from a social psychological goal perspective with recent theoretical developments from educational psychology, testing the processes that link a person's social identity with the effort for the achievement goals. With a pilot study using a sample of 86 university students, we tested the assumption that expectation for success and subjective task values mediate the relation between the student identity and effort intentions. In line with our expectations, stronger identification with the group of students was related to stronger effort intentions, mediated via interest and attainment value. These results suggest that social identity may have a profound impact on the engagement decisions made in educational settings.

1. Introduction

Group membership is an important aspect of human identity [1]. In almost all societies, individuals bond with others and strive for being part of a collection of people. They are often members of groups that follow specific goals. For example, members of the group of students will very likely strive for the goal of academic achievement. As a matter of fact, social groups determine what and who individuals are and what they do, thus being of vital importance to every individual's identity [2–5]. Indeed, behaviors and expectations of significant others (*i.e.*, other group members) have an impact on one's own task value appraisals and goal expectations. As Shah [6] argued, significant others automatically influence how group members construe and experience goals. In the current report, we argue that one's identification with a social group, and, thus, the social bond to significant others, relates to people's engagement in achievement-related, goal-directed behavior. In the latest revision of Eccles' [7] "expectancy × value" model of motivated behavioral choice, the author suggests ways to explain why goal-directed behaviors are influenced by social identities. In contrast to personal identity, which makes individuals feel unique, social identity is closely connected to group membership. Eccles argues that individuals enact and validate their social identities through engagement in certain activities, behaviors and choices. Social identities, in turn, include schemata about appropriate behaviors. Thus, individuals will be motivated to act in accordance with the behavioral guidelines of their social groups. Similar to Eccles, Osborne and Jones' identification with academics model [8] and Oyserman and Destin's identity-based motivation model [9] posit that individuals who strongly identify with the academic domain will show higher motivation, effort and, ultimately, achievement in academic settings.

In line with Eccles' model, there are two major pathways for how collective identities affect goal-directed behaviors: an individual's expectations for success and the value he or she attaches to certain behavioral options. Prior research on social identities, motivation and achievement has typically examined the role of gender identity and of racial minorities' ethnic identity [10,11]. Our study is the first to examine the role of identification with being a student. We assume that while an individual's gender or ethnicity are not necessarily associated with behavioral guidelines about achievement motivation and goals, it is part of the student identity to engage in study-related matters. Based on Shah's [6] findings on the implicit influence of significant others on goal appraisals, this pilot-study thus tests the assumption that identification with the social group of students is associated with one's achievement-related goal effort. More importantly, we focus on the mediation patterns underlying this relationship, as predicted by Eccles [7]. In the current study, we test these assumptions with the group identity of students that, as we assumed, would generally relate to engagement in behavior directed towards this goal. As student identity is generally relevant and salient to students (e.g., [12]), we predicted that the more students identify with their salient social group, the more effort intentions they should display. According to Eccles [7], the association between group identification and effort intentions should be mediated by students' expectations of success and subjective task values (interest, utility, attainment and cost value) that students assign to their educational choice.

2. Method

2.1. Participants and Procedure

Participants were 86 students from a large university in Germany (63 female, M_{age} = 21.2, SD = 2.7) and received course credit or chocolate for their participation in the study. The questionnaire study was conducted in a laboratory on campus, advertised as a study on "identity and life goals". After reading information about the study and signing informed consent, participants received the study materials in the order displayed in the Measures section. At the end of the study, demographic data were collected and participants were thanked, compensated and fully debriefed.

2.2. Measures

Participants rated all items on 7-point Likert scales (1 = I totally disagree/very poorly/very unlikely to 7 = I totally agree/very well/very likely). The order of the measures of expectation of success and task values were counterbalanced and collapsed.

Expectancy of success: Expectancy of success was measured with four items (e.g., "How well do you think you will do in your studies this semester?"), derived from competence belief items administered in [9], (α = 0.87).

Subjective task values: The four subjective task values delineated in [7] were measured with items primarily derived from [13] and [14]. Interest value (e.g., "I find many topics in my studies to be interesting"), utility value ("In my studies, understanding that what I learn has many benefits for me") and attainment value (e.g., "Earning high grades in my studies is important to me") were measured with 3 items each (αs = 0.57, 0.63 and 0.80, respectively), whereas cost value (e.g., "Putting effort into my studies takes too much resources from other activities") was measured with 5 items (α = 0.78).

Effort intentions: Effort intentions were measured with five items (α = 0.77, e.g., "I will take as much as effort as necessary in order to successfully master this term's study requirements"), based on the recommendations by [15].

Student identification: We measured identification with the overall group of university students (in German, the word "student" unequivocally refers to the group of higher education students). Student identification was measured with four items (e.g., "I identify with the group of students"; α = 0.84). We measured student identification at the very end of the study to prevent participants from speculating about the specific role of group identification while attending the measures of expectancy, task values and study intentions.

3. Results

First, Pearson correlations were computed to test whether our primary study variables were interrelated. As can be seen in Table 1, the extent of student identification correlated substantially with study intentions, interest value, attainment value and utility value: the more strongly participants identified as students, the more they were willing to engage in their studies and the more important were interest, attainment and utility values to them. However, neither student identification nor study intentions significantly related to the expectation of success or cost value.

**Table 1.** Intercorrelation between the primary study variables.

	1	2	3	4	5	6	7
1. Group identification	-						
2. Study intention	0.22 *	-					
3. Expectation for success	0.14	0.17	-				
4. Interest value	0.43 ***	0.35 ***	0.27 *	-			
5. Attainment value	0.28 **	0.26 *	0.10	0.13	-		
6. Utility value	0.38 **	0.25 *	0.09	0.44 ***	0.14	-	
7. Cost value	0.07	0.04	−0.49 ***	−0.20	0.20	0.002	-

Note: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.

In the second step, we tested the mediating role of subjective task values for the link between student identification and study intentions. Given that there were no significant relations between student identification and the expectation of success/cost value, no mediation analyses were carried out for these variables. To test for the mediating role of interest, attainment and utility values, we inspected confidence intervals with standard errors that were estimated via bootstrapping [16]. Precisely, we used the SPSS macro provided by [17], which allows testing the combined effects of the three mediators, taking shared variance among the mediation variables into account.

We used 5000 bootstrap resamples to approximate the sampling distributions of the conditional indirect effect of student identification on effort intentions via the subjective task values. The overall indirect effect was significant: $B = 0.21$, *SE(B)* = 0.07; 95% CI = (0.086; 0.373). More importantly, the analysis of each of the subjective task values revealed a significant indirect effect of student identification on effort intentions via interest value, $B = 0.11$, *SE(B)* = 0.06; 95% CI = (0.014; 0.253), $\kappa^2 = 0.102$, as well as a significant indirect effect via attainment value, $B = 0.06$, *SE(B)* = 0.03; 95% CI = (0.001; 0.151), $\kappa^2 = 0.055$. The indirect effect via utility value, however, was non-significant, $B = 0.04$, *SE(B)* = 0.04; 95% CI = (−0.029; 0.1502), $\kappa^2 = 0.038$). This pattern of results is consistent with our hypothesis that subjective task values mediate the relation between student identification and effort intentions (see Figure 1). However, it is also plausible to assume that students who perceive more value in their work as students come to identify more strongly as students. To test this assumption, we computed mediation analyses (following the procedure described above) with task values as independent variables and identification as the mediator. Further supporting expectancy value theory, there were no mediation effects via identification for the interest value, $B = 0.05$, *SE(B)* = 0.07; 95% CI = (−0.10; 0.193), attainment value, $B = 0.06$, *SE(B)* = 0.05; 95% CI = (−0.019; 0.196), and utility value, $B = 0.07$, *SE(B)* = 0.07; 95% CI = (−0.031; 0.243).

Figure 1. The mediating role of subjective task values on study intentions. The coefficient from student identification to study intentions represents a direct effect (in parentheses: after controlling for subjective task values).
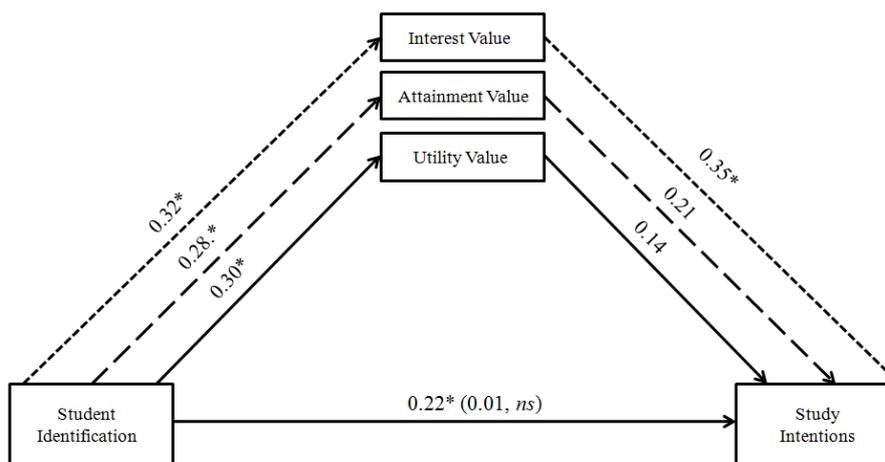
Note: * $p < 0.05$; [+] $p < 0.10$.

4. Discussion

In this pilot study, we aimed to test the relation between one's social identity and behavior that is in line with the group's behavioral guidelines. As predicted, we found that the more strongly students identified with their group, the stronger were their effort intentions. This result extends previous research [6] that focused on the activation of social goal appraisals, by testing mediating processes between the relevance of group membership and group-related goals, such as achievement goals. Most importantly, we show that this relation is partly mediated by participants' subjective task values. Although the mediation was only significant for interest and attainment values (and rather weak for the latter), these findings suggest that group membership relates to people's focus on certain values and, thus, their inclination to engage in behavior that their group prescribes [11].

We speculate that for utility values, the current study lacked power. As can be seen in the intercorrelation, utility correlated both with identification and study intentions, so that with a larger sample, we would have come to the conclusion that utility also mediates the relation between identification and study intentions. This argument might also hold for the lack of effects with expectancy for success, where the intercorrelation was in the expected direction, but non-significant. For cost value, however, there was no relation at all with identification and study intentions. This suggests that cost values could be more relevant when social identities prescribe prohibitions for certain behavior. For example, girls and women experience higher conflict than men when they primarily engage in occupational goals, because such behavior opposes the traditional female role [7].

Of course, the current pilot study does not allow causal inferences about the relations we present here. It is also possible that study intentions make students aware of their student identity. Thus, future research would benefit from adopting an experimental approach that increases the salience of certain social identities, furthermore testing actual behavior rather than mere intentions.

Future research might also test whether the current findings extend to other social identities and how these affect group members' engagement in certain behaviors and choices. For example, there may exist complex interactions between ethnic identity, socio-economic status and gender, which may eventually result in lower education and higher unemployment, particularly among migrant women (as is the case in Germany; [18]). Examining the psychological mechanisms that link group identity to certain behavioral choices might thus help to explain the effects of social structures on inequalities in education and labor markets.

5. Conclusions

According to [7], people engage in goal-directed behaviors when they expect success and ascribe high values to a certain task. In this pilot study, we found evidence that social identification relates to such values and concordant behavioral intentions. Although initial, these findings suggest that individual' social identities need to be taken into account when investigating processes that inhibit or facilitate goal achievement behavior.

Author Contributions

Gerhard Reese and Julia Dietrich contributed equally to both the conceptual ideas of the research as well as the study design and data collection. Gerhard Reese performed data analyses, and both authors wrote the paper with a similar share. All authors read and approved the final manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

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