Competitive and Cooperative Practices in Education: How Teachers' Beliefs in School Meritocracy are Related to their Daily Practices with Students[1]

Céline Darnon

Université Clermont Auvergne

Mickaël Jury

Université Clermont Auvergne

Sébastien Goudeau

Université de Poitiers

Marine Portex

Association Ecolhuma

Authors' Note

Céline Darnon, Laboratoire de Psychologie Cognitive et Sociale, LAPSCO, UMR6024,
CNRS, Université Clermont Auvergne, France, ORCID: 0000-0003-2613-689X.
Mickaël Jury, Laboratoire Activité, connaissance, transmission et éducation, Université Clermont Auvergne,
ORCID: 0000-0003-2004-6682.
Sébastien Goudeau, Centre de Recherches sur la Cognition et l'Apprentissage, CeRCA, UMR7295, CNRS,
Université de Poitiers, ORCID : 0000-0001-7293-0977.
Marine Portex, Association Ecolhuma, France, ORCID : 0000-0002- 1376-1955.

Correspondance should be adressed to Céline Darnon, Laboratoire de Psychologie Sociale et Cognitive,
Université Clermont Auvergne, 34 Avenue Carnot, 63037 Clermont-Ferrand Cedex, France
(celine.darnon@uca.fr). The authors declare that there are no potential conflicts of interest with respect to the
research, authorship, and/or publication of this article.

---

[1] This paper has been accepted for publication in *Social Psychology of Education* in July 2023. This version is a post-print.

Abstract

Teachers' daily competitive and cooperative practices impact students' motivation and academic achievement. The present research was conducted on French in-service teachers. Our goal was to examine one of the predictors of the use of competitive and cooperative pedagogical practices by teachers: their belief in school meritocracy. A sample of 818 teachers completed an online survey. They were asked to report their levels of beliefs in school meritocracy (e.g., "At school, where there is a will, there is a way") as well as how often they use competitive (e.g., "Encourage competition between students to get them to excel) and cooperative practices (e.g., "Have students cooperate with each other so that each student progresses in learning") in their class. Results showed that the more teachers believed in school meritocracy, the more likely they were to promote a performance goal structure in their class, which was, in turn associated with more frequent use of competitive practices. Conversely, the more teachers believed in school meritocracy, the less likely they were to promote mastery goals, which in turn were associated with more cooperative practices.

Keyword: Meritocracy, Teachers, Goal structure, Competition, Teaching practices

1. Introduction

Teachers' daily practices in their classroom can highly impact students' motivation and academic achievement (Brophy, 2005; Butera et al., 2022; Hattie, 2012; Wang et al., 1993). Among these practices, competitive and cooperative practices have been of great interest for researchers and practitioners. Indeed, relationships between students can either be conceived as competitive relationships where students compete for the same reward, or as cooperative ones where students work together for common benefits (Gillies & Boyes, 2010; Johnson & Johnson, 2009). Teachers' practices depend partly on the training they have received, but they also depend on other factors, such as their own beliefs about school work and academic achievement. In the present research, we aim to examine one of the predictors of the use of competitive and cooperative pedagogical daily practices by teachers: their belief that the system they work for (namely, the school system) is meritocratic.

1.1. Classroom Goal Structures, Competition and Cooperation

A long tradition of research has examined the consequences, for students, of pursuing mastery goals (i.e., focusing on developing one's abilities, mastering a new skill, self-improvement, trying to understand learning materials) and performance goals (i.e., focusing on demonstrating high or low ability relative to others, striving to be better, or not worse, than others; for reviews, see Ames, 1992; Elliot, 2005; Senko et al., 2011). This literature has documented that pursuing one type of goals or another can impact how students behave, study and learn in academic contexts (for reviews, see Butera et al., 2023; Elliot & Hulleman, 2017; Linnenbrink-Garcia et al., 2008). It was first argued that mastery goals favored positive academic outcomes while performance goals predicted negative academic outcomes (Dweck, 1986; Ames, 1992). However, current work depicts a more nuanced picture on the link between goals and academic outcomes. Indeed, mastery goals have yielded inconsistent results for academic achievement (Elliot & Hulleman, 2017; Hulleman et al. 2010) but consistently predict intrinsic interest (Harackiewicz & Hulleman, 2010; Harackiewicz et al., 2008; Hulleman et al, 2008), self-efficacy (Huang, 2016), positive attitude toward cooperation (Poortvliet & Darnon, 2010). On the other hand, performance-approach goals positively predict challenge appraisals and exam performance (Elliot & Moller, 2003; Hulleman et al., 2010) but also predict surface processing (Darnon & Butera, 2005; Elliot et al., 1999) and risk of dropping-out (Sommet et al., 2017). These associations between self-set goals and academic outcomes particularly occur when students report these goals because they believe in their social utility and not for social desirability reasons (Dompnier et al., 2015; Smeding et al., 2022).

Among the antecedents that push students towards these goals are teachers' practices. Without surprise, when teachers and supervisors pursue mastery or performance goals, students are also likely to develop corresponding goals (Butera et al., 2023; Sommet et al., 2017). Similarly, instructional and teaching practices have been shown to contribute to create different "goal structures" in the classroom. In turn, these

goal structures affect students' motivation and achievement (Ames, 1992; Kapan et al., 2002; Lau & Nie, 2008; Meece et al., 2006). Goal structures correspond to the goal-related messages that are implicitly or explicitly communicated by teachers and made salient in achievement settings (Kaplan et al., 2002). Classroom goal structures can be more or less oriented toward performance or mastery goals: mastery goal structures are usually associated with an emphasis on efforts and concerns about students' deep learning and progress, while performance goal structures are more related to grading, ability grouping, and social comparisons within the classroom (e.g., Patrick et al., 2001; Wolters, 2004).

Performance and mastery goal structures affect several outcomes including the relationships between students within the classroom (for reviews, see Butera et al., 2010, 2019; Poortvliet & Darnon, 2010). For example, performance goals are related with the perception of other students as potentially threatening sources of social comparison with whom one wants to compete (Nicholls, 1984; Poortvliet et al., 2007). Performance goal endorsement is also associated to competitive forms of conflict regulation (i.e., trying to uphold one's own point of view and invalidate that of the other person, Darnon et al., 2006; Sommet et al., 2014). In contrast, mastery goals are linked to the perception of other students as potential sources of information with whom they may cooperate (Kim et al., 2015; Poortvliet et al., 2009). In case of disagreement, mastery goals predict epistemic forms of conflict regulation (i.e., trying to understand the other's point of view, integrate perspectives, etc.; see Darnon et al., 2006; Darnon & Butera, 2007). Mastery goals are also connected to empathic concerns, as well as providing and seeking help in the classroom (Karabenick, 2004; Poortvliet & Darnon, 2013; Poortvliet et al., 2009; Ryan et al., 2001). Taken together, these results suggest that mastery goal structures should be associated with the promotion of cooperative exchanges between students, with students being encouraged to help each other in order to progress. Conversely, performance goal structures are more likely expected to be associated with the promotion of practices that encourage competition between students.

For these reasons, many scholars encourage teachers to promote mastery goal structures (rather than performance goal structures) within their classrooms (Brophy, 2005; Kaplan et al., 2002). However, this might be easier said than done, in part because the promotion of performance goals is embodied in the very functioning of the school system itself (Butera et al., 2022, 2023; Darnon et al., 2009; Dompnier et al., 2008).

1.2. School Selection, Meritocracy, and the Promotion of Performance Goals

Research suggests that the promotion of performance goals within classrooms is at least partially due to the very functioning of the educational system within the society (Darnon et al., 2009). Indeed, in addition to its primary function of education, the educational system fulfills a function of selection (Dornbusch et al., 1996). More precisely, many students enter school each year but only a fraction of them will obtain sufficient grades to obtain the most valued diplomas. In turn, diplomas and grades determine one's future occupational opportunities. Thus, the selection process that occurs in school is crucial (Batruch et al., 2019; Butera et al., 2022; Darnon et al., 2009). Indeed, by providing lower and higher rank diplomas to students, the school system "sorts" them and indirectly orients them to higher vs. lower status positions in society. This function of selection represents a structural pressure that every teacher is confronted with (Butera et al., 2022) and automatically provides a social utility value to performance goals (Dompnier et al., 2008) and encourages students to endorse such goals (Jury et al., 2017).

The selection process that occurs at school is intended to be made on a purely meritocratic basis (Batruch et al., 2019; Croizet et al., 2017; Mijs, 2016). Indeed, in most educational systems, all students are supposed to enter school with the same chances of success and those who receive the highest grades should be those who have worked the hardest or who are the most talented (i.e., the "worthier", Kuppens et al., 2018; Mijs, 2016; Plaut & Markus, 2005; Son Hing et al., 2002, 2011). Nonetheless, it appears that in fact, several non-meritocratic factors (e.g., socio-economic status, gender, disability, ethnicity, etc.) impact the probability of experiencing success or failure in school, which contributes to generating inequalities (e.g. OECD, 2019; Bradley & Corwyn, 2002; Sirin, 2005). As a result, teachers, students, or even parents can develop very different levels

of beliefs about how meritocratic the selection process is (Darnon et al., 2018a, 2018b; Khamzina et al., 2021). For teachers, these beliefs may in turn affect how they proceed and interact with students in their class.

1.3. Belief in School Meritocracy (BSM) as a Barrier to the Promotion of Efficient School Practices

There are different ways of conceiving meritocracy (for a discussion on that issue, see Solga, 2014; Mijs, 2016). In the present paper, we argue that believing in school meritocracy means thinking that the selection process that takes place at school is purely and exclusively based on merit. Conversely, doubting school meritocracy means being skeptical about the efficiency of the selection process to truly select the most deserving students. Thus, the extent to which individuals believe or do not believe in school meritocracy can greatly impact their faith in the system, as well as their willingness to accept or change it (Batruch et al., 2022; Darnon, Smeding et al., 2018). Importantly, researchers make a distinction between "descriptive" meritocracy (believing that a system rewards merit, Son Hing et al., 2011; also called "perception of meritocracy", Castillo et al., 2021) and "prescriptive" meritocracy (thinking the system *should* reward merit, also called "preference for meritocracy", Castillo et al., 2021). Belief in school meritocracy, as conceived in the present research, corresponds to descriptive (perception) and not prescriptive (preference) meritocracy. Outside of the school environment, it has been shown that meritocracy beliefs (i.e., descriptive meritocracy) are associated with internal causal attributions, and the underestimation of external factors (Kuppens et al., 2018; Madeira et al., 2019; McCoy & Major, 2007). Consequently, general belief in meritocracy (i.e., descriptive meritocracy) is associated with perception of the system as being fair (Jost et al., 2004; Jost & Hunyadi, 2005), a stronger preference for hierarchy (Pratto et al., 1994; Haley & Sidanius 2006), and a lower support for social change (Crosby et al., 2006; Faniko, et al., 2015).

Within the school system, meritocratic beliefs lead into perceiving academic outcomes (success and failures) as a faithful reflection of individual efforts and abilities (Mijs, 2016). As a result, BSM may also imply an underestimation of the weight of external factors of school success, such as race, social class, gender, and an over-attribution to internal factors (Goudeau & Cimpian, 2021). Among them, work and effort are the most central because they correspond to controllable internal attributions (Gonzales et al., 2022; Weiner, 1985). These are also the most valued attributions in the school context (Dompnier & Pansu, 2007) over and beyond abilities, probably explaining why this component of belief in meritocracy is the most studied in literature (Castillo et al., 2021).

This over-attribution of successes and failures to controllable internal factors (i.e., effort) can lead individuals to think that those who reach higher educational levels deserve it because people are responsible for their successes but also for their failures (Kuppens et al., 2018; O'Brien & Major, 2009; Muradoglu et al., 2022; Sicard et al., 2023; Trautwein et al., 2006). Thus, such beliefs can strongly influence judgments and behaviors (Brun et al., 2021). A recent study, for example, showed that children who were presented with two individuals from unequal groups tend to provide more money to the underprivileged one when the inequalities between the two groups were presented as being mostly explained by ability or luck. The reverse occurred, however, when the inequalities between the two groups were presented as being due to effort and hard work. In that case, they provided more money to the representative of the privileged group (Gonzales et al., 2022). It has also been demonstrated that leading fifth graders to believe strongly in academic meritocracy increases the socioeconomic status (SES) achievement gap (Darnon et al., 2018a, 2018b). Similarly, recent studies conducted on students (Study 1) and parents (Studies 2 and 3) showed that the more participants believe in school meritocracy, the less likely they are to support the implementation of a new, yet effective, pedagogical intervention to increase student learning in their university (Study 1) or in their children's school (Studies 2 and 3, Darnon et al., 2018a). Moreover, this effect occurred all the more when the fictitious pedagogical intervention was presented as eliminating the SES achievement gap. Another study conducted with teachers (Khamzina et al., 2021) showed that the more they believe in school meritocracy, the less they support the implementation of inclusive education, a paradigm in which every student should have the same opportunities to learn, regardless of their educational needs.

1.4. Overview and Hypothesis

Taken together, the research reported above suggests that BSM is associated with preferences for practices that maintain the status quo. Indeed, the more teachers believe in school meritocracy, the more they accept the selection process as it is (see Khamzina et al., 2021). Consequently, it is expected that teachers with higher beliefs in school meritocracy would be more likely to endorse practices based on competition and less likely to endorse practices based on cooperation.

In the present research, the associations between BSM and various pedagogical practices was examined among teachers. We argue that the more teachers believe in school meritocracy, the more they should promote a performance goal structure and the lower they should promote a mastery goal structure within their class. It is worth noting that mastery goals could also be related to meritocratic beliefs. However, we argue that this will be less the case than for performance goals insofar as mastery goals, while based on effort as a strategy for learning, are less rooted in the question of achievement than performance goals. In turn, we believe that performance goal structures should be associated with a more frequent use of competitive daily practices and mastery goal structures with a more frequent use of cooperative daily practices.

2. Method

2.1. Participants

Participants were all in-service teachers. They were contacted via the mailing list of a French Teacher and Teaching Association (SYNLAB). A total of 1221 participants have started the questionnaire. Among them, 818 completed at least 50% for each scale of interest and were retained for the analyses. This sample (a convenient one) included 662 women, 91 men, 3 non-binary (62 who preferred not to say) with a mean age of 44.15 (SD = 9.65) and a mean length of service of 15.47 (SD = 10.47). The sample includes elementary (N = 307) and post-elementary (N = 356) teachers (155 missing data).

2.2. Procedure and Material

2.2.1. Belief in school meritocracy. We used the 8-item measure from Wiederkehr et al. (2015, see also Darnon et al., 2018a), which was adapted to teachers (e.g., "At school, where there is a will, there is a way"; "At school, students who get good grades are those who have worked well"; "At school, students get the grades they deserve", α =.82, M = 3.31; SD = 0.98). Participants reported the extent to which they thought each item reflected the reality of how things work in French schools currently, on a scale ranging from 1 (not at all) to 7 (very much). As such, and as developed above, the present scale measured descriptive (and not prescriptive) meritocracy (Son Hing et al., 2011)[2].

2.2.2. Mastery vs. performance goal structures. This measure was extracted from the PALS (Midgley et al., 2000) and the items were adapted to the French context. The scale included 8 items, with 4 of them reflecting the promotion of a performance goal structure (e.g., " I reward students who do the best work "; "I help students understand their performance through comparison with other students", α =.71, M = 2.87; SD = 1.18) and 4 which reflected the promotion of a mastery goal structure (e.g., "I make a special effort to recognize individual student progress, even if they are underperforming regarding the expectations"; "During

---

[2] As mentioned in the introduction, the notion of merit generally refers both to efforts and ability (i.e., talents, Young, 1962) but it is unclear whether the present scale corresponded to effort, ability attributions or both. To address this issue, an attribution measure, inspired by Rattan et al. (2012) was included in the study. Results from correlational analyses indicated that participants' score on the BSM scale was significantly related to effort attributions (r = .23, p <.001) but not to ability attributions (r =.00, ns). In other words, as done in most research (Castillo et al., 2021), the measure used here mostly captured internal controllable attributions for success and failures (Weiner, 1985). It is worth noting that BSM was negatively related to the attributions of success and failures to teachers and family. For details, see supplementary material online: https://osf.io/5fhte/

the lessons, I often propose several different activities so that the students can choose among them", α =.75, *M* = 5.31; *SD* = 1.10).

2.2.3. Reported frequency of the use of competitive and cooperative practices. In order to assess the teaching practices participants used on a daily basis, 17 practices (mostly extracted from Hattie, 2008) were listed. Participants were then asked to indicate the frequency with which they used each of them on a scale ranging from 1 (never) to 7 (every day or almost every day). In the present paper, we focus on the main practices of interest: competitive and cooperative practices. Competitive practices included three items (e.g., "Compare students between them", "Encourage competition between students to get them to excel", "Set an example with the best students in the class", α =.73, *M* = 2.87; *SD* = 1.18). Cooperative practices included two items (e.g., "Have students cooperate with each other so that each student progresses in learning", "Offer to help a student who has completed his or her work to help a student who is having difficulty", *r* =.45, *p* < .001, *M* = 5.31; *SD* = 1.10).

3. Results

The full data set and script analyses are available here: https://osf.io/5fhte/

3.1. Zero-Order correlation between variables

Table 1

Zero-order correlations between variables

	(1)	(2)	(3)	(4)	(5)
(1) Belief in School Meritocracy	__				
(2) Performance goal structure	.44***	__			
(3) Mastery goal structure	-.10**	.03	__		
(4) Competitive practices	.39***	.71***	.00	__	
(5) Cooperative practices	-.07^t	.02	.42***	.08*	_

Note. ^{t} *p* < .10; * *p* < .05 ** *p* < .01, *** *p* < .001

3.2. Main analyses

We tested the hypothesized model using path analysis with observed variables. Model fit was not relevant because the hypothesized model was fully saturated. All data were analyzed using the lavaan package (Rosseel, 2012) for R (R Core Team, 2014).

As illustrated in Figure 1, and as expected, teachers' belief in school meritocracy was a positive predictor of performance goal structure (β = .44, 95% CI [.37, .49]), which in turn was a positive predictor of competitive practices (β = .69, 95% CI [.64, .72]). Additionally, and again, as expected, teachers' belief in school meritocracy appeared to be a negative predictor of mastery goal structure (β = -.10, 95% CI [-.17, -.02]), which was in turn a positive predictor of cooperative practices (β = .42, 95% CI [.35, .48]). It should be noted that mastery goal structure did not predict competitive practices (β = -.00, 95% CI [-.05, .03]) and that performance goal structure did not predict cooperative practices (β = -.00, 95% CI [-.07, .05]).

Next, we tested the indirect effects of teachers' belief in school meritocracy on competitive and cooperative practices through performance goal structure and mastery goal structure respectively, using a bootstrap procedure (on 5,000 samples). The indirect effect of teachers' belief in school meritocracy on competitive practices through performance goal structure was significant, β = .30, 95% CI [.25, .34], as was the indirect effect of teachers' belief in school meritocracy on cooperative practices through mastery goal structure, β = -.04, 95% CI [-.07, -.00]. Put differently, it seems that the more teachers believe in school meritocracy, the more they report using competitive practices, and the less they report using cooperative ones on a daily basis. These links are explained by the motivational climate they create (respectively, a higher performance goal structure and a lower mastery goal structure).

Fig. 1

Associations between teachers' belief in school meritocracy and (competitive and cooperatives) practices in the classroom, via performance and mastery goal structures.

Indirect$_{BSM->PG->Comp}$ = .30, 95% CI [.25,.34]
Indirect$_{BSM->MG->Coop}$ = -.04, 95% CI [-.07,-.00]
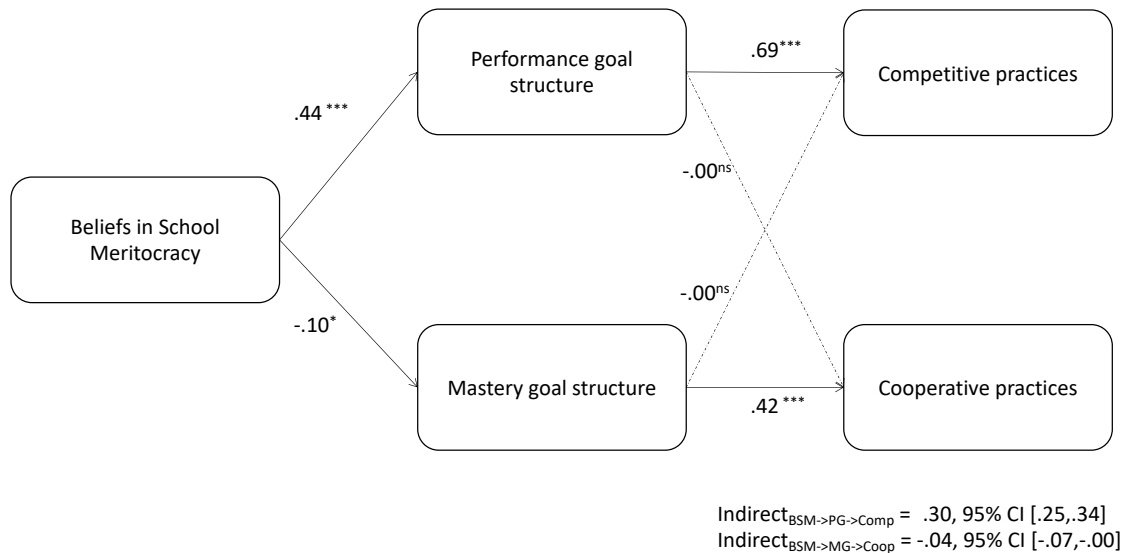
Note. $^{ns}p > .05$, $^*p < .05$, $^{***}p < .001$; BSM = Beliefs in School Meritocracy, PG = Performance goal structure, MG = Mastery goal structure, Coop = Cooperative practices, Comp = Competitive practices.

4. Discussion

Teachers' personal belief impacts their practices and how they behave in the classroom (Buehl & Beck, 2015; Pajares, 1992; Patrick et al., 2001), which in turn can have significant consequences on students' outcomes (Butera et al., 2021; Hattie, 2008). The present study shows that the more teachers believe that school is meritocratic, the more likely they are to promote a performance goal structure in the class, conveying to the students the idea that what matters is to be better than others. Quite logically, this climate is in turn associated with a more frequent use of competitive practices. The reverse occurred for mastery goal structure. Indeed, the more teachers believe in school meritocracy, the *less* likely they are to promote mastery goals. This climate is in turn associated with a more frequent use of cooperative practices.

These results nicely complement previous research on achievement goals. As discussed above, research is not always unanimous on the effects of performance and mastery goal endorsement on academic achievement (Huang, 2012; Hulleman et al., 2010; Van Yperen et al., 2014). However, there is a large consensus on the fact that performance goals are associated with the perception of others as competitors, whereas mastery goals are more associated with a vision of others as sources of information, of help, and therefore potential collaborative partners (Butler & Shibaz, 2008; Darnon et al., 2006; Poortvliet & Darnon, 2010; Tanaka et al., 2001). Nevertheless, with the exception of Butler (2007), so far, these results were mainly shown with self-set goals measured at the student level. In line with Butler's (2007) findings that teachers' own mastery goals predict positive attitudes towards help seeking in class, the present research shows that teachers' propensity to promote a mastery or performance goal structure predicts the frequency with which they report using cooperative and competitive practices in their class. Furthermore, they show that this climate is itself predicted by the extent to which they believe in school meritocracy.

The present research mostly examined the effort (and not ability) component of meritocracy (Young, 1962). Interestingly, correlational analyses (see supplementary material for full details) showed that beliefs in school meritocracy were *negatively* related to the attributions of success and failures to family and teachers.

This result supports the idea that meritocratic attributions lead to an underestimation of external causes for success and failures (Kuppens et al., 2018; Madeira et al., 2019) and thus could lower the awareness of the existence of structural barriers explaining academic success and failures, over and beyond the internal characteristics of the students.

These results could have important practical implications including on how to reduce the socioeconomic status (SES) achievement gap. Indeed, several studies show that competitive practices based on performance goals tend to increase the performance gap between low and high SES students (Crouzevialle & Darnon, 2019; Darnon et al., 2018b; Jury et al., 2015; Smeding et al., 2013). Conversely, low SES students seem to be those who benefit the most from cooperative practices (Dittman et al., 2020; Ginsburg-Block et al., 2006). Future research should test the links between teachers' belief in school meritocracy and the propensity to reproduce or even increase the SES achievement gap in their class. On the basis of the present results, it seems reasonable to expect that the more teachers believe in school meritocracy, the more they use competitive practices, and the more pronounced the SES gap should be in their class at the end of the year. This perspective highlights the importance of including, in future research, a measure of students' academic performance (e.g., GPA), in addition to the measures of teachers' practices. Not only would it make it possible to examine whether teachers' beliefs and practices are related to students' academic performance, but it would also allow to address the extent to which they maintain, increase or decrease the SES achievement gap.

In addition, the present study only included measures of performance and mastery goal structures. Current literature on personal achievement goals suggest to distinguish mastery-approach and mastery-avoidance goals as well as performance-approach and performance-avoidance goals (Elliot & McGregor, 2001). Such distinction is more often included in personal goal research than in goal structure research. In the present research, as it is the case in most of goal structure research, the items used exclusively focused on the "approach" dimension of goals (see Hofverberg & Winberg, 2020; Linnenbrink, 2005). Future research should however examine whether avoidance-goal structures are similarly associated to beliefs in school meritocracy as well as competitive and cooperative practices. Moreover, in the present research we measured what teachers wanted to promote in their class, and not perceived goal structure from the students' perspective (see Meece et al., 2006, for different possible ways to assess goal structures). Future research could include a measure of perceived goal climate among students. Teachers' practices are usually linked to students' perceived motivational climate (Ames, 1992) so we predict that teachers' promotion of mastery and performance goal structures should be related to perceived motivational climate among students.

In future research, beliefs in school meritocracy should also be manipulated. Indeed, a limitation of the present study is the cross-sectional nature of the data. This issue is particularly important here since the mediator and the DV are conceptually relatively close constructs. This could be done by asking teachers to read a text describing school as being more or less meritocratic. However, such manipulations produce inconsistent results (e.g., Darnon et al., 2018a, Study 3; Madeira et al., 2019). An alternative way of proceeding could be to use the fictitious society paradigm (Jetten et al., 2017; Wang et al., 2023). Future research should test these different possibilities. Relatedly, the participants of the present study have been contacted via the mailing list of a teacher association whose goal is to provide resources to teachers in order to help them improve their practices. Consequently, they might be relatively highly committed teachers. Replicating the result on a more diverse sample of teachers would in this sense increase the generalizability of the findings.

In spite of the need for more research to determine the conditions under which teachers' meritocratic beliefs impact their practices, the present finding raise important questions regarding what should be said to students. Indeed, as developed above, attribution based on efforts are particularly valued in classrooms (Dompnier & Pansu, 2010) and very frequently encouraged amongst children (Gonzales et al., 2022). Of course, the point here is not to argue that we should stop telling students that they should do efforts in order to succeed. Indeed, working hard is a *sine qua non* condition for learning. Moreover, effort-based attributions are controllable attributions (Weiner, 1985) and sense of control is essential to maintain a high level of motivation and avoid learned helplessness (Dweck, 1975; 1992; Dweck & Reppucci, 1973). A meta-analysis recently

confirmed that the extent to which participants attribute their success and failures to controllable causes is significantly related with their expectancy of success, behavioral adjustment and performance (Brun et al., 2021). However, it may be prudent to remind students that although merit is indeed a predictor of success, it is not the only one. There are many external factors that also strongly influence school achievement and that have nothing to do with one's merit (e.g. SES, race, gender, etc). In this respect, interventions aimed at de-essentializing performance (Autin & Croizet, 2012; Stephens et al., 2019; Wilson & Linville, 1982, 1985) may be particularly appropriate. Indeed, such interventions are likely to encourage students and teachers not to blindly believe in school merit and remain critical of the limits of the school system to practice a purely meritocratic selection. According to the results presented here, this lucidity is precisely what can encourage teachers to promote a mastery goal structure and cooperative practices, with all the associated benefits for students, especially the most fragile ones, who need the most school to learn and succeed.

References

Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology*, *84*, 261–271. https://doi.org/10.1037/0022-0663.84.3.261

Autin, F., & Croizet, J.-C. (2012). Improving working memory efficiency by reframing meta-cognitive interpretation of task difficulty. *Journal of Experimental Psychology: General, 141*, 610-618. https://doi.org/10.1037/a0027478

Batruch, A., Autin, F., & Butera, F. (2019b). The paradoxical role of meritocratic selection in the perpetuation of social inequalities at school. In J. Jetten, & K. Peters (Eds.), *The social psychology of inequality* (pp. 123-137). Springer International Publishing.

Batruch, A., Jetten, J., Van de Werfhorst, H., Darnon, C., & Butera, F. (2022). Belief in school meritocracy and the legitimization of social and income inequality. *Social Psychological and Personality Science*, 19485506221111016. https://doi.org/10.1177/19485506221111017

Bradley, R. H., & Corwyn, R. F. (2002). Socioeconomic status and child development. *Annual Review of Psychology*, *53*, 371–399. https://doi.org/10.1146/annurev.psych.53.100901.135233

Brophy, J. (2005). Goal theorists should move on from performance goals. *Educational Psychologist*, *40*(3), 167–176. https://doi.org/10.1207/s15326985ep4003_3

Brun, L., Pansu, P. & Dompnier, B. (2021). The role of causal attributions in determining behavioral consequences: A meta-analysis from an intrapersonal attributional perspective in achievement contexts. *Psychological Bulletin, 147* (7), 701-718. doi: 10.1037/bul0000331.

Buehl, M. M., & Beck, J. S. (2015). The relationship between teachers' beliefs and teachers' practices. In H. Fives, & M. G. Gills (Eds). *International Handbook of Research on Teachers' Beliefs* (pp. 66-84). Routledge. Retrieved from https://www.taylorfrancis.com/chapters/edit/10.4324/9780203108437-11/relationship-teachers-beliefs-teachers-practices-teachers-practices-michelle-buehl-jori-beck

Butera, F., Batruch, A., Autin, F., Mugny, G., Quiamzade, A. & Pulfrey, C. (2021). Teaching as social influence: Empowering teachers to become agents of social change. *Social Issues and Policy Review, 15*, 323-355. https://doi.org/10.1111/sipr.12072

Butera, F., Darnon, C., & Mugny, G. (2010). Learning from conflict. In J. Jetten & M. Hornsey (Eds.), *Rebels in Groups: Dissent, deviance, difference and defiance* (pp. 36–53). Oxford University Press. https://doi.org/10.1002/9781444390841

Butera, F., Dompnier, B., & Darnon, C. (2023). Achievement Goals: A Social Influence Cycle. *Annual Review of Psychology*

Butera, F., Sommet, N., & Darnon, C. (2019). Sociocognitive conflict regulation: How to make sense of diverging ideas. *Current Directions in Psychological Science*, *28*(2), 145–151. https://doi.org/10.1177/09637214188139

Butera, F., Świątkowski, W., & Dompnier, B. (2022) Competition in Education. In S. Garcia, A. Tor, & A. Elliot, (Eds.), *The Oxford handbook on the psychology of competition*, New York: Oxford University Press. https://doi.org/10.1093/oxfordhb/9780190060800.013.24

Butler, R. (2007). Teachers' achievement goal orientations and associations with teachers' help seeking: Examination of a novel approach to teacher motivation. *Journal of Educational Psychology, 99*(2), 241–

252. https://doi.org/10.1037/0022-0663.99.2.241

Butler, R., & Shibaz, L. (2008). Achievement goals for teaching as predictors of students' perceptions of instructional practices and students' help seeking and cheating. *Learning and Instruction*, *18*, 453–467. https://doi.org/10.1016/j.learninstruc.2008.06.004

Castillo, J. C., Maldonado, L., Meneses, F., & Atria, J. (2021). *Measuring Perceptions and Preferences for Meritocracy*. Retrieved from: https://files.osf.io/v1/resources/mwk52/providers/osfstorage/61c2529d32d6ff014877a527?action=download&direct&version=1

Croizet, J. C., Goudeau, S., Marot, M., & Millet, M. (2017). How do educational contexts contribute to the social class achievement gap: documenting symbolic violence from a social psychological point of view. *Current Opinion in Psychology*, *18*, 105–110. https://doi.org/10.1016/j.copsyc.2017.08.025

Crosby, F. J., Iyer, A., & Sincharoen, S. (2006). Understanding affirmative action. *Annual Review of Psychology*, *57*, 585–611. https://doi.org/10.1146/annurev.psych.57.102904.190029

Crouzevialle, M., & Darnon, C. (2019). On the academic disadvantage of low social class individuals: Pursuing performance goals fosters the emergence of the achievement gap. *Journal of Educational Psychology*, *111*(7), 1261–1272. https://doi.org/10.1037/edu0000349

Darnon, C., & Butera, F. (2005). Buts d'accomplissement, stratégies d'étude et motivation intrinsèque : Présentation d'un domaine de recherche et validation française de l'échelle D'Elliot et Mcgregor (2001) [Achievement goals, study strategies, and intrinsic motivation: presentation of a research field and validation of the French version of Elliot and McGregor's (2001) scale]. *L'Année Psychologique, 105*(1), 105–131. https://doi.org/10.3406/psy.2005.3821

Darnon, C., & Butera, F. (2007). Learning or succeeding? Conflict regulation with mastery or performance goals. *Swiss Journal of Psychology*, *66*(3), 145–152. https://doi.org/10.1024/1421-0185.66.3.145

Darnon, C., Dompnier, B., Delmas, F., Pulfrey, C., & Butera, F. (2009). Achievement goal promotion at university: Social desirability and social utility of mastery and performance goals. *Journal of Personality and Social Psychology, 96*, 119–134. https://doi.org/10.1037/a0012824

Darnon, C., Muller, D., Schrager, S. M., Pannuzzo, N., & Butera, F. (2006). Mastery and performance goals predict epistemic and relational conflict regulation. *Journal of Educational Psychology*, *98*, 766–776. https://doi.org/10.1037/0022-0663.98.4.766

Darnon, C., Smeding, A., & Redersdorff, S. (2018). Belief in school meritocracy as an ideological barrier to the promotion of equality. *European Journal of Social Psychology, 48*(4), 523–534. https://doi.org/10.1002/ejsp.2347

Darnon, C., Wiederkehr, V., Dompnier, B., & Martinot, D. (2018). 'Where there is a will, there is a way': Belief in school meritocracy and the social-class achievement gap. *British Journal of Social Psychology*, *57*(1), 250–262. https://doi.org/10.1111/bjso.12214

Dittmann, A. G., Stephens, N. M., & Townsend, S. S. M. (2020). Achievement is not class-neutral: Working together benefits people from working-class contexts. *Journal of Personality and Social Psychology*, *119*(3), 517–539. https://doi.org/10.1037/pspa0000194

Dompnier, B., Darnon, C., Delmas, F., & Butera, F. (2008). Achievement goals and social judgment: The performance-approach goals paradox. *International Review of Social Psychology*, *21*(1–2), 247–271. Retrieved from https://www.cairn.info/revue-internationale-de-psychologie-sociale-2008-1-page-247.htm

Dompnier B., Darnon C., Meier E., Brandner C., Smeding A., & Butera F. (2015). Improving low achievers' academic performance at university by changing the social value of mastery goals. *American Educational Research Journal, 52 (4)*, 720-749.

Dompnier, B., & Pansu, P. (2007). L'intervention des explications causales internes en termes d'effort dans les stratégies d'autoprésentation et le jugement social : Perspectives sociocognitives. [The role of internal-effort explanations in self-presentation strategies and social judgments: sociocognitive perspectives]. *Psychologie Française*, *52*(4), 459–478. https://doi.org/10.1016/j.psfr.2007.03.001

Dompnier, B., & Pansu, P. (2010). La valeur sociale des explications causales en contexte éducatif : autoprésentation des élèves et représentation des enseignants. [Social value of causal explanations in educational settings: Pupils' self-presentation and teachers' representations]. *Swiss Journal of Psychology*, *69*, 39–51. https://doi.org/10.1024/1421-0185/a000005

Dornbusch, S. M., Glasgow, K. L., & Lin, I. C. (1996). The social structure of schooling. *Annual Review of Psychology, 47*, 401–429. https://doi.org/10.1146/annurev.psych.47.1.401

Dweck, C. S. (1975). The role of expectations and attributions in the alleviation of learned helplessness. *Journal of Personality and Social Psychology*, *31*, 674–685. https://doi.org/10.1037/h0077149

Dweck, C. S. (1986). Motivational processes affecting learning. *American Psychologist, 41*(10), 1040–1048. https://doi.org/10.1037/0003-066X.41.10.1040

Dweck, C. S. (1992). The study of goals in psychology. *Psychological Science*, *3*, 165–167. https://doi.org/10.1111/j.1467-9280.1992.tb00019.x

Dweck, C. S., & Reppucci, N. D. (1973). Learned helplessness and reinforcement responsibility in children. *Journal of Personality and Social Psychology*, *25*, 109–116. https://doi.org/10.1037/h0034248

Elliot, A. J. (2005). A conceptual history of the achievement goal construct. In A. J. Elliot & C. Dweck (Eds.), *Handbook of competence and motivation* (pp. 52–72). The Guilford Press.

Elliot, A. J., & Hulleman, C. S. (2017). Achievement goals. In A. J. Elliot, C. S. Dweck, & D. S. Yeager (Eds.), *Handbook of competence and motivation: Theory and application* (pp. 43–60). The Guilford Press.

Elliot, A. J., & McGregor, H. A. (2001). A 2 x 2 achievement goal framework. *Journal of Personality and Social Psychology, 80*, 501–519. doi:10.1037/0022-3514.80.3.501

Elliot, A. J., McGregor, H. A., & Gable, S. (1999). Achievement goals, study strategies, and exam performance: A mediational analysis. *Journal of Educational Psychology, 91*(3), 549–563. https://doi.org/10.1037/0022-0663.91.3.549

Elliot, A.J., & Moller, A.C. (2003). Performance-approach goals: good or bad forms of regulation? *International Journal of Educational Research,* 39 (4-5), 339-356. https://doi.org/10.1016/j.ijer.2004.06.003

Faniko, K., Lorenzi-Cioldi, F., Ghisletta, P., Sørensen, S. Ø., Manushi, E., Shalsi, F., & Chipeaux, M. (2015). When meritocracy opposes quota policy: How education and policy strength impact opinions about affirmative action. In F. L.-C. K. Faniko O. Sarrasin, & E. Mayor (Ed.), *Gender and Social Hierarchies: Perspectives from Social Psychology* (pp. 82–97). Routledge. https://doi.org/10.4324/9781315675879

Gillies, R. M., & Boyle, M. (2010). Teachers' reflections on cooperative learning: Issues of implementation. *Teaching and Teacher Education*, *26*(4), 933–940. https://doi.org/10.1016/j.tate.2009.10.034

Ginsburg-Block, M. D., Rohrbeck, C. A., & Fantuzzo, J. W. (2006). A meta-analytic review of social, self-concept, and behavioral outcomes of peer-assisted learning. *Journal of Educational Psychology*, *98*(4), 732–749. https://doi.org/10.1037/0022-0663.98.4.732

Gonzalez, A. M., Macchia, L., & Whillans, A. V. (2022). The developmental origins and behavioral consequences of attributions for inequality. *Journal of Experimental Social Psychology*, *101*, 104329. https://doi.org/10.1016/j.jesp.2022.104329

Goudeau, S., & Cimpian, A. (2021). How do young children explain differences in the classroom? Implications for achievement, motivation, and educational equity. *Perspectives on Psychological Science*, *16*(3), 533–552. https://doi.org/10.1177/1745691620953781

Haley, H., & Sidanius, J. (2006). The positive and negative framing of affirmative action: A group dominance perspective. *Personality and Social Psychology Bulletin*, *32*(5), 656–668. https://doi.org/10.1177/0146167205283442

Harackiewicz, J. M., Durik, A. M., Barron, K. E., Linnenbrink, E. A., & Tauer, J. M. (2008). The role of achievement goals in the development of interest: Reciprocal relations between achievement goals, interest and performance. *Journal of Educational Psychology, 100*, 105-122.

Harackiewicz, J.M., & Hulleman, C. S. (2010). The importance of interest: The role of achievement goals andtask values in promoting the development of interest. *Social and Personality Psychology Compass,4(1)*, 42-52.

Hattie, J. (2008). *Visible Learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.

Hattie, J. (2012). *Visible Learning for Teachers: Maximising Impact on Learning*. Routledge.

Hofverberg, A., & Winberg, M. (2020). Achievement goals and classroom goal structures: Do they need to match? *The Journal of Educational Research, 113*(2), 145–162. https://doi.org/10.1080/00220671.2020.1759495

Huang, C. (2012). Discriminant and criterion-related validity of achievement goals in predicting academic achievement: a meta-analysis. *Journal of Educational Psychology*, *104*(1), 48–73. https://doi.org/10.1037/a0026223

Huang, C. (2016). Achievement goals and self-efficacy: A meta-analysis. *Educational Research Review, 19*(1), 119-137. https://www.learntechlib.org/p/197421/

Hulleman, C. S., Durik, A.M., Schweigert, S., & Harackiewicz, J. M. (2008). Task values, achievement goals, and interest: An integrative analysis. *Journal of Educational Psychology, 100*, 398-416.

Hulleman, C. S., Schrager, S. M., Bodmann, S. M., & Harackiewicz, J. M. (2010). A meta-analytic review of achievement goal measures: Different labels for the same constructs or different constructs with similar labels? *Psychological Bulletin*, *136*(3), 422–449. https://doi.org/10.1037/a0018947

Johnson, D. W., & Johnson, R. T. (2009). An educational psychology success story: Social interdependence theory and cooperative learning. *Educational Researcher*, *38*, 365–379. https://doi.org/10.3102/0013189X093390

Jost, J. T., Banaji, M. R., & Nosek, B. A. (2004). A decade of system justification theory: Accumulated evidence of conscious and unconscious bolstering of the status quo. *Political Psychology*, *25*(6), 881–919. https://doi.org/10.1111/j.1467-9221.2004.00402.x

Jost, J. T., & Hunyady, O. (2005). Antecedents and consequences of system-justifying ideologies. *Current Directions in Psychological Science*, *14*(5), 260–265. https://doi.org/10.1111/j.0963-7214.2005.00377.x

Jury, M., Smeding, A., & Darnon, C. (2015). First-generation students' underperformance at university: the impact of the function of selection. *Frontiers in Pyschology*, *6*(710). https://doi.org/10.3389/fpsyg.2015.00710

Jury, M., Smeding, A., Stephens, N. M., Nelson, J. E., Aelenei, C., & Darnon, C. (2017). The experience of low-SES students in higher education: Psychological barriers to success and interventions to reduce social-class inequality. *Journal of Social Issues*, *73*(1), 23-41. https://doi.org/10.1111/josi.12202

Kaplan, A., Middleton, M. J., Urdan, T., & Midgley, C. (2002). Achievement goals and goal structures. In C. Midgley (Ed.), *Goals, goal structures, and patterns of adaptive learning* (pp. 21–53). Lawrence Erlbaum Associates Publishers.

Karabenick, S. A. (2004). Perceived Achievement Goal Structure and College Student Help Seeking. *Journal of Educational Psychology, 96*(3), 569–581. https://doi.org/10.1037/0022-0663.96.3.569

Khamzina, K., Jury, M., Ducreux, E., & Desombre, C. (2021). The conflict between inclusive education and the selection function of schools in the minds of French teachers. *Teaching and Teacher Education, 106*, 103454. https://doi.org/10.1016/j.tate.2021.103454

Kim, J.-I., Chung, H., Kim, M., & Svinicki, M. D. (2015). Context-specific achievement goal orientations in cooperative group work. *Learning and Individual Differences*, *42*, 117–125. https://doi.org/10.1016/j.lindif.2015.08.004

Kuppens, T., Spears, R., Manstead, A. S., Spruyt, B., & Easterbrook, M. J. (2018). Educationism and the irony of meritocracy: Negative attitudes of higher educated people towards the less educated. *Journal of Experimental Social Psychology*, *76*, 429–447. https://doi.org/10.1016/j.jesp.2017.11.001

Lau, S., & Nie, Y. (2008). Interplay between personal goals and classroom goal structures in predicting student outcomes: A multilevel analysis of person-context interactions. *Journal of Educational Psychology, 100*(1), 15–29. https://doi.org/10.1037/0022-0663.100.1.15

Linnenbrink, E. A. (2005). The dilemma of performance-approach goals: The use of multiple goal contexts to promote students' motivation and learning. *Journal of Educational Psychology, 97*(2), 197–213. https://doi.org/10.1037/t09161-000

Linnenbrink-Garcia, L., Tyson, D.F., Patall, E.A. (2008). When are Achievement Goal Orientations Beneficial for Academic Achievement? A Closer Look at Main Effects and Moderating Factors. *International Review of*

Social Psychology, 1 (21), 19-70.

Madeira, A. F., Costa-Lopes, R., Dovidio, J. F., Freitas, G., & Mascarenhas, M. F. (2019). Primes and consequences: A systematic review of meritocracy in intergroup relations. *Frontiers in Psychology, 10,* Article 2007. https://doi.org/10.3389/fpsyg.2019.02007

McCoy, S. K., & Major, B. (2007). Priming meritocracy and the psychological justification of inequality. *Journal of Experimental Social Psychology, 43*(3), 341–351. https://doi.org/10.1016/j.jesp.2006.04.009

Meece, J. L., Anderman, E. M., & Anderman, L. H. (2006). Classroom goal structure, student motivation and academic achievement. *Annual Review of Psychology*, *57*, 487–503. https://doi.org/10.1146/annurev.psych.56.091103.070258

Midgley, C., Maehr, M. L., Hruda, L. Z., Anderman, E., Anderman, L., Freeman, K. E., Gheen, M., Kaplan, A., Kumar, R., Middleton, M. J., Nelson, J., Roeser, R., & Urdan, T. (2000). *Manual for the Patterns of Adaptive Learning Scales (PALS)*. Ann Arbor.

Mijs, J. J. (2016). The unfulfillable promise of meritocracy: Three lessons and their implications for justice in education. *Social Justice Research, 29*(1), 14-34. https://doi.org/10.1007/s11211-014-0228-0

Muradoglu, M., Goudeau, S., & Cimpian, A. *Children's explanations for ability grouping.* [Manuscript in preparation]. Stanford University.

Nicholls, J. G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological Review, 91*, 328–346. https://doi.org/10.1037/0033-295X.91.3.328

O'Brien, L., & Major, B. (2009). Group Status and Feelings of Personal Entitlement: The Roles of Social Comparison and System-Justifying Beliefs. In J. T. Jost, A. C. Kay, & H. Thorisdottir (Eds.), *Social and Psychological Bases of Ideology and System Justification* (pp. 427–443). Oxford University Press.

OECD. (2019). *Education at a Glance 2019: OECD Indicators.* Paris : Éditions OCDE. https://doi.org/10.1787/f8d7880d-en.

Pajares, M. F. (1992). Teachers' Beliefs and Educational Research: Cleaning Up a Messy Construct. *Review of Educational Research, 62*(3), 307–332. https://doi.org/10.3102/00346543062003307

Patrick, H., Anderman, L. H., Ryan, A. M., Edelin, K. C., & Midgley, C. (2001). Teachers' communication of goal orientations in four fifth-grade classrooms. *Elementary School Journal*, *102*(1), 35–58. https://doi.org/10.1086/499692

Plaut, V. C., & Markus, H. R. (2005). The "inside" story: A cultural-historical analysis of being smart and motivated, American style. In A. J. Elliot & C. S. Dweck (Eds.), *Handbook of competence and motivation* (pp. 457–488). Guilford Publications.

Poortvliet, P. M., & Darnon, C. (2010). Towards a more social understanding of achievement goals: The interpersonal effects of mastery and performance goals. *Current Directions in Psychological Science*, *19*(5), 324–328. https://doi.org/10.1177/0963721410383246

Poortvliet, P. M., & Darnon, C. (2014). Understanding positive attitudes toward helping peers: The role of mastery goals and academic self-efficacy. *Self & Identity*, *13*(3), 345–363. https://doi.org/10.1080/15298868.2013.832363

Poortvliet, P. M., Janssen, O., Van Yperen, N. W., & Van de Vliert, E. (2007). Achievement goals and interpersonal behavior: How mastery and performance goals shape information exchange. *Personality and Social Psychology Bulletin*, *33*(10), 1435–1447. https://doi.org/10.1177/014616720730553

Poortvliet, P. M., Janssen, O., Van Yperen, N. W., & Van de Vliert, E. (2009). The joint impact of achievement goals and performance feedback on information giving. *Basic and Applied Social Psychology*, *31*(3), 197–209. https://doi.org/10.1080/01973530903058276

Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology*, *67*(4), 741-763. https://doi.org/10.1037/0022-3514.67.4.741

R Core Team. (2014). *R: A language and environment for statistical computing*. R Foundation for computing, Vienna, Austria. http: // www.R-Project.org

Rattan, A., Good, C., & Dweck, C. S. (2012). "It's ok — Not everyone can be good at math": Instructors with an entity theory comfort (and demotivate) students. *Journal of Experimental Social Psychology, 48*(3), 731–737. https://doi.org/10.1016/j.jesp.2011.12.012

Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software, 48*(2), 1–36. https://doi.org/10.18637/jss.v048.i02

Ryan, A. M., Pintrich, P. R., & Midgley, C. (2001). Avoiding seeking help in the classroom: who and why? *Educational Psychology Review*, *13*(2), 93–114. https://doi.org/10.1023/A:1009013420053

Senko, C., Hulleman, C. S., & Harackiewicz, J. M. (2011). Achievement goal theory at the crossroads: Old controversies, current challenges, and new directions. *Educational Psychologist*, *46*(1), 26–47. https://doi.org/10.1080/00461520.2011.538646

Sicard, A., Darnon, C., & Martinot, D. (2022). *Academic failure and psychological disengagement: Can Belief in school meritocracy make a difference?* [Manuscript under revision]. Université Clermont Auvergne.

Sirin, S. R. (2005). Socioeconomic status and academic achievement: A meta-analytic review of research. *Review of Educational Research*, *75*, 417–453. https://doi.org/10.3102/00346543075003417

Smeding, A., Darnon, C., Souchal, C., Toczek-Capelle, M. C., & Butera, F. (2013). Reducing the socio-economic status achievement gap at university by promoting mastery-oriented assessment. *PLoS ONE*, *8*(8), e71678. https://doi.org/10.1371/journal.pone.0071678

Smeding, A., Dompnier, B., Meier, E., Darnon, C., & Butera, F. (2022). A multilevel account of social value-related reasons behind mastery goals. *British Journal of Educational Psychology, 92*, 394–408.

Solga, H. (2014). Education, Economic Inequality and the Promises of the Social Investment State. *Socio-Economic Review, 12*(2), 269-297.

Sommet, N., Darnon, C., Butera, F., Mugny, G., Quiamzade, A., Pulfrey, C., & Dompnier, B. (2014). Performance-approach and performance-avoidance goals in social interaction: Toward the distinction between two modes of relational conflict regulation. *British Journal of Social Psychology*, *53*(1), 134–153. https://doi.org/10.1111/bjso.12015

Sommet, N., Pillaud, V., Meuleman, B., & Butera, F. (2017). The socialization of performance goals. *Contemporary Educational Psychology, 49*, 337-354. https://doi.org/10.1016/j.cedpsych.2017.03.008

Son Hing, L. S., Bobocel, D. R., & Zanna, M. P. (2002). Meritocracy and opposition to affirmative action: making concessions in the face of discrimination. *Journal of Personality & Social Psychology*, *83*, 493–509. https://doi.org/10.1037/0022-3514.83.3.493

Son Hing, L. S., Bobocel, D. R., Zanna, M. P., Garcia, D. M., Gee, S. S., & Orazietti, K. (2011). The merit of meritocracy. *Journal of Personality and Social Psychology*, *101*, 433–450. https://doi.org/10.1037/a0024618

Stephens, N. M., Hamedani, M. G., & Townsend, S. S. M. (2019). Difference matters: Teaching students a contextual theory of difference can help them succeed. *Perspectives on Psychological Science*, *14*, 156-174. https://doi.org/10.1177/1745691618797957

Tanaka, A., Murakami, Y., Okuno, T., & Yamauchi, H. (2001). Achievement goals, attitudes toward help seeking, and help-seeking behavior in the classroom. *Learning and Individual Differences*, *13*(1), 23–35. https://doi.org/10.1016/S1041-6080(02)00043-2

Trautwein, U., Lüdtke, O., Köller, O., & Baumert, J. (2006). Self-esteem, academic self-concept, and achievement: How the learning environment moderates the dynamic of self-concept. *Journal of Personality & Social Psychology*, *90*, 334–349. https://doi.org/10.1037/0022-3514.90.2.334

Van Yperen, N. W., Blaga, M., & Postmes, T. (2014). A meta-analysis of self-reported achievement goals and nonself-report performance across three achievement domains (work, sports, and education). *Plos One*, *9*(4). https://doi.org/10.1371/journal.pone.0093594

Wang, M. C., Haertel, G. D., & Walberg, H. J. (1993). Toward a knowledge base for school learning. *Review of Educational Research*, *63*(3), 249–294. https://doi.org/10.3102/00346543063003249

Wang, Z., Jetten, J., & Steffens, N. K. (2023). Restless in an unequal world: Economic inequality fuels the desire for wealth and status. *Personality and Social Psychology Bulletin, 49*(6), 871–890. https://doi.org/10.1177/01461672221083747

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, *92*(4), 548–573. https://doi.org/10.1037/0033-295X.92.4.548

Wiederkehr, V., Darnon, C., Chazal, S., Guimond, S., & Martinot, D. (2015). From social class to self-efficacy: Internalization of low social status pupils' school performance. *Social Psychology of Education, 18*(4), 769–784. https://doi.org/10.1007/s11218-015-9308-8

Wilson, T. D., & Linville, P. W. (1982). Improving the academic performance of college freshmen: Attribution therapy revisited. *Journal of Personality and Social Psychology, 42*, 367-376. https://doi.org/10.1037/0022-3514.42.2.367

Wilson, T. D., & Linville, P. W. (1985). Improving the performance of college freshmen with attributional techniques. *Journal of Personality and Social Psychology, 49*, 287-293. https://doi.org/10.1037/0022-3514.49.1.287

Wolters, C. A. (2004). Advancing achievement goal theory: Using goal structures and goal orientations to predict students' motivation, cognition, and achievement. *Journal of Educational Psychology*, *96*(2), 236–250. https://doi.org/10.1037/0022-0663.96.2.236

Young, M. (1961). *The rise of the meritocracy, 1870–2033: An essay on education and equality.* Penguin Books.