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Running head: FACING THE RISK OF UPWARD MOBILITY

Facing the Risk of Upward Mobility: Performance-avoidance goals and social class among high-school students

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Abstract

Recent research has shown that lower social class students are more likely to endorse performance-avoidance goals (i.e., the fear of performing poorly) than higher-class students, particularly in situations of success (Jury, Smeding, Court & Darnon, 2015). The purpose of the present research is, first, to test the upward mobility process as a moderator of the link between social class and performance-avoidance goal endorsement. The second aim is to document the further impact of this process on academic performance. Two hundred and fifteen high school students ($M_{\text{age}} = 17.40$, $SD = 0.69$) participated in the experiment. Half of them were randomly assigned to a “mobility salience” condition where they completed a mobility perception scale; while the other half completed a neutral scale. Then, they answered performance-avoidance goal items and solved mathematics, physics and life and earth sciences exercises. Results indicated that the salience of the mobility process increased the effect of social class on both performance-avoidance goal endorsement and mathematic performance. In addition, performance-avoidance goals appeared to be a mediator of the interaction effect between social class and the salience of the mobility process on mathematics performance. No such findings were obtained for physics and life and earth sciences. Taken together, these results support the idea that the prospect of experiencing mobility may be one of the mechanisms behind the difficulties encountered by lower-class students in an academic context.

Keywords: Upward Mobility, Social Class, Performance-avoidance goals, Performance, High School.

1 Facing the Risk of Upward Mobility: Performance-avoidance goals and social class among
2 high-school students

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4 While the college degree has become pivotal in helping achieve success in society,
5 access to college is out reach for many. Lower-class students, in particular, are more exposed
6 to a variety of stressors, such as a “steeper learning curve” in the transition from high school
7 to college (Bui, 2002; Ishitani, 2006), increased family demands (London, 1989), lack of peer
8 support (Dennis, Phinney, & Chuateco, 2005), difficulty establishing connections on campus,
9 (Bean & Metzner, 1985) and financial burdens (Engle & Tinto, 2008) than their upper-class
10 counterparts. An additional difficulty encountered by lower-class students when they are on
11 the point of enrolling in higher education is that, by achieving a higher level of education than
12 their parents, they are likely to experience an upward mobility process. The goal of the
13 present paper is to test this mobility process as one of the mechanisms responsible for some of
14 the difficulties encountered by lower-class students in the transition from high school to
15 higher education.

16

17 **Lower social class students and performance-avoidance goal endorsement.**

18 In the academic context, students can pursue different types of goals. These are
19 referred to as "achievement goals" (Elliot, 2005; Sommet & Elliot, 2016) and are highly
20 predictive of various academic outcomes. In particular, according to this field of research,
21 individuals can adopt performance-based goals that are focused either on achieving success
22 (i.e., performance-approach goals, focused on the demonstration of superior competence) or
23 avoiding failure (i.e., performance-avoidance goals, focused on the fear of performing poorly,
24 see Elliot, Murayama, & Pekrun, 2011; Korn & Elliot, 2016). These latter goals will be the
25 focus of the present research. Indeed, a central issue in the literature is the extent to which

26 different goal orientations facilitate or undermine performance, intrinsic motivation or other
27 learning-related outcomes (e.g., Barron & Harackiewicz, 2001; Midgley, Kaplan, &
28 Middleton, 2001). Research has consistently documented that performance-avoidance goal
29 endorsement is associated with many maladaptive outcomes (for a review, Senko, Hulleman
30 & Harackiewicz, 2011). For example, the endorsement of performance-avoidance goals is
31 often related to surface learning or disorganization (Coutinho & Neuman, 2008), self-
32 handicap (Lovejoy & Durik, 2010), the avoidance of help-seeking when needed (Roussel,
33 Elliot, & Feltman, 2011), and a low level of intrinsic motivation (Elliot & McGregor, 2001).
34 Endorsing performance-avoidance goals also favors negative emotions such as shame or
35 anxiety (Putwain, Sander, & Larkin, 2013) and a low sense of self-efficacy (Deemer, Carter,
36 & Lobrano, 2010; Elliot et al., 2011). Furthermore, in this research, performance-avoidance
37 goal endorsement has regularly been shown to be associated with poor academic grades
38 (Hulleman, Schrager, Bodmann, & Harackiewicz, 2010; Van Yperen, Blaga & Postmes,
39 2014).

40 In recent years, some studies conducted in a higher-education context have shown that
41 lower-class students are more likely to endorse performance-avoidance goals than upper-class
42 students (for example, Jury, Smeding, Court et al., 2015). Indeed, people usually tend to
43 believe that students from a higher social class are better at school than students from a lower
44 social class (Desert, Préaux, & Jund, 2009; Durante, Tablante, & Fiske, 2017). Consequently,
45 lower-class students are more likely than higher-class students to perceive their intellectual
46 abilities as weak (Ivcevic & Kaufman, 2013) and have less confidence in their ability to
47 succeed in college, even when they have the same level of high school preparation and
48 achievement as their peers from a higher social class (Engle, 2007). Furthermore, lower-class
49 individuals are likely to feel negative emotions, such as less personal control over events
50 (Kraus, Piff, & Keltner, 2009), a fear of not being respected or considered trustworthy (Kraus,

51 Tan, & Tannenbaum, 2013) and they are more anxious to be “like everyone else” (Kraus, Piff,
52 & Keltner, 2011; Kraus, Piff, Mendoza-Denton, Rheinschmidt, & Keltner, 2012). Other
53 studies have shown that lower-class students experience a cultural mismatch in the university
54 system (Stephens, Townsend, Markus, & Phillips, 2012) and have to face a negative
55 stereotype associated with their group (Croizet & Claire, 1998; Steele & Aronson, 1995)
56 which can, in turn, reduce their performance levels. All these negative experiences may be
57 related to the adoption of performance-avoidance goals. In the present paper, we argue that
58 another mechanism may push lower-class students to endorse more performance-avoidance
59 goals than upper-class students: The social mobility process they are on the point of engaging
60 in.

61 **The social mobility of lower-class students**

62 Although the perspective of upward mobility should be encouraging for lower-class
63 students, research suggests that higher education is a new and often unfamiliar environment
64 for them. Once at university, lower-class students are often overwhelmed by their
65 environment, which is filled with new expectations, rules and norms (McCarron & Inkelas,
66 2006). In addition, the parents of lower-class students are often unfamiliar with the difficulties
67 and disadvantages their children face at university and cannot help them to overcome these
68 challenges (Engle & Tinto, 2008). Jetten, Iyer, Tsivrikos, and Young (2008) have shown that,
69 in a university context, lower social class students experience a greater sense of
70 incompatibility when they enter university and identify less with university life than higher
71 social class students. Compared to higher social class students, they also report feeling like
72 "outsiders" in the college context and feeling as if they do not “belong” in this environment
73 (Lee & Kramer, 2013, Ostrove & Long, 2007, Rubin, 2012). Indeed, people who leave their
74 original social group to access a more privileged social group may be subject to double
75 discrimination (Warner, Hornsey, & Jetten, 2007): Discrimination from their new group since

76 they do not share their rules and / or from their former group for their disloyalty (Travaglino,
77 Abrams, Randsley de Moura, Marques, & Pinto, 2014). Moreover, many low social class
78 students typically adopt a specific role within the family. Once at university, they want to
79 continue to contribute to their families while still keeping on track with academic tasks and
80 demands (Covarrubias & Fryberg, 2015; Vasquez-Salgado, Greenfield, & Burgos-
81 Cienfuegos, 2015). Thus, the process of upward mobility involves identity change and this
82 change may be particularly difficult for lower-class students (Amiot, Terry, Wirawan, &
83 Grice, 2010). To cope with this identity change, students may endorse several strategies. The
84 adoption of performance-avoidance goals could be one of them.

85 Arguing that the upward mobility process is one of the mechanisms underlying the
86 effect of social class on performance-avoidance goal endorsement, Jury, Smeding, Court &
87 Darnon (2015) have shown that lower-class college students who are high academic achievers
88 more specifically endorse more performance-avoidance goals than higher-class college
89 students. Indeed, the higher the previous academic grade level, the greater the effect of social
90 class on performance-avoidance goal endorsement. Similarly, a lab study conducted by Jury,
91 Smeding and Darnon (2015) showed that the effect of social class on interest in a cue that
92 may indicate poorer performance than others (a behavioral measure of performance-
93 avoidance goal endorsement) increased with participants' initial performance on the task. This
94 moderation of the effect of social class by the initial level of achievement is interpreted in the
95 light of the fact that lower-class high performers are the students who are most exposed to the
96 upward mobility process. Indeed, by succeeding in their academic tasks, lower social class
97 students are likely to obtain a higher education diploma and thus experience upward mobility.

98 Further support for this explanation in terms of the upward mobility process can be
99 found in recent research testing the effect of positive and negative feedback on the evolution
100 of performance-avoidance goal endorsement (Jury et al., 2018). Indeed, this research indicates

101 that the level of performance-avoidance goal endorsement increases after positive feedback
102 for lower-class students and after negative feedback for higher-class students, supporting the
103 idea that mobility is a situation that favors performance-avoidance goal endorsement. The
104 study in question also found that the perception of upward mobility mediates the link between
105 social class and performance-avoidance goal endorsement.

106 All in all, this research suggests that successful lower-class students who are on the
107 point of achieving mobility are particularly likely to endorse performance-avoidance goals.
108 However, these studies present limitations that have to be addressed before we can draw
109 conclusions about the role of upward mobility in explaining the differences in performance-
110 avoidance goals and performance as a function of social class. First, in these studies, mobility
111 was either evoked as a possible mechanism to account for the moderation of the effect of
112 social class by academic level (Jury et al., 2015a, 2015b), or measured as an individual
113 perception (Jury et al., 2018). Manipulating the salience of the upward mobility process
114 would make it possible to draw clearer conclusions about the causal link between social
115 mobility and performance-avoidance goal endorsement. Second, this research was conducted
116 among university psychology students. A replication of the findings among a population that
117 has not yet entered university would involve a sample that is both more gender-balanced and
118 more heterogeneous in terms of social class. Finally, although this previous research has
119 established the associations between social class and performance-avoidance goals, these
120 studies did not measure further academic performances. As indicated above, the endorsement
121 of performance-avoidance goals is usually negatively related to performance (Hulleman et al.,
122 2010; Van Yperen et al., 2014), particularly among low social class students (Bruno, Jury,
123 Toczek-Capelle, & Darnon, 2019). Consequently, it seems reasonable to assume that a greater
124 endorsement of performance-avoidance goals may mediate the effect of social class and
125 mobility on academic performance.

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Overview and hypotheses

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The present study was conducted among high school students a few months before deciding whether or not to enroll in higher education. The salience of the upward mobility process was manipulated by asking students to answer either a mobility or a neutral scale. We expected the salience of the mobility process to moderate the effect of social class on performance-avoidance goals and on performance on three topics : Mathematics, physics, and life and earth sciences. More precisely, lower-class students should endorse more performance-avoidance goals and perform worse than upper-class students, and this should be particularly true when the upward mobility process is made salient. Furthermore, we hypothesized that performance-avoidance goals would mediate the interaction between social class and upward mobility in terms of performance. Thus, in a mediated moderation model, performance-avoidance goals were tested as a mediator of the moderating effect of the salience of mobility on the relationship between social class and performance.

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Method

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Participants

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An a priori power analysis was conducted on G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) to determine the sample size. Based on low effect sizes usually observed in research about social class' effects, ($\eta^2 = .04$), 191 participants were required by using an ANCOVA with fixed effects (SES and salience of mobility) and their interactions with an alpha level of .05 and a power level of .80. Gender and initial achievement (mean centered) were entered as covariates in the power compute. To increase safety margins and since we expected to lose some participants because of missing values, we planned to run 230 participants. Two hundred and thirty-three 12th grade students specializing in sciences participated in the study during a classroom lesson. Because data was missing for fifteen

151 participants on the subjective SES measure, our final sample included 215 participants: 102
152 girls and 113 boys, with a mean age of 17.40 years ($SD = 0.69$). The questionnaires were
153 completely anonymously and the study received the approval of the Human Protection
154 Committee (2016/CE 104). The material and the raw data are available on OSF at
155 <https://osf.io/enqfk/>.

156 **Procedure and Materials**

157 The experiment was presented as being part of a national survey on success in high
158 school. First, the participants were randomly assigned to a “Mobility Salience” vs. a control
159 condition. To that purpose, they completed either a scale of perception of social mobility
160 (Mobility Salience condition), or a scale measuring the distance between their homes and high
161 school (Control condition). All the participants then completed a measure of performance-
162 avoidance goals as well as multiple-choice tests in mathematics, physics and life and earth
163 sciences and also indicated their subjective SES rank.

164 **Manipulation of the salience of the mobility process.** In order to manipulate the
165 salience of the mobility process, participants completed either a 7-points mobility scale (e.g.,
166 “You are at high school and, in few months, you are going to take the school-leaving
167 examination. Do you think this level of education is much lower (1)/equivalent (4)/much
168 higher (7) than the one obtained by the most educated of your parents?”, “In your opinion, the
169 degree you plan to obtain after the school-leaving examination will be much
170 lower/equivalent/much higher than the one obtained by the most educated of your parents?” N
171 = 113); or a distance from high school scale (“In your opinion, the distance from your home
172 to your high school is much shorter (1)/equivalent (4)/much longer (7) than that of other high
173 school students?” (Control Group, $N = 120$). This procedure was inspired by the procedure
174 used by Kudrna, Furnham, and Swami (2010) for manipulating social class salience.

175 **Performance-avoidance goals.** The three-item performance-avoidance scale was
176 taken from Elliot and Mc Gregor's (2001) Achievement Goal Questionnaire. The questions
177 referred to the participants' studies "in general". The participants indicated their degree of
178 agreement on a 7-point scale, ranging from (1) "totally disagree" to (7) "completely agree"
179 (e.g., "I just want to avoid doing poorly in my studies"). The responses were averaged to form
180 a performance-avoidance score ($\alpha = .56$, $M = 4.64$, $SD = 1.39$).

181 **Mathematics, Physics, and life and science performance tests.** For each topic, we
182 wanted the performance measures to be as close as possible to the exams students regularly
183 take in this course. In accordance with participants' teachers, we have therefore extracted
184 some questions from previous years' baccalaureate exams, i.e., the official exam that students
185 take at this level. All were multiple choices questions. There were four possible answers for
186 each selected question and only one was correct. The participants first answered the
187 mathematics test which contained four questions ($M = 1.17$, $SD = 0.94$). Then, they answered
188 the physics test which contained three questions ($M = 2.06$, $SD = 0.77$). Finally, the life and
189 science test was composed of three questions ($M = 1.55$, $SD = 0.98$).

190 **Subjective SES rank.** Social class was measured using the MacArthur Scale of
191 Subjective Socioeconomic Status (Adler, Epel, Castellazzo, & Ickovics, 2000; Kraus, Piff, &
192 Keltner, 2009). Indeed, contrary to most research conducted in a higher education context and
193 thus, using parental level of education as a proxy for social class (e.g., Stephens et al., 2012;
194 2014), the present study was conducted on a population of high school participants. Thus, in
195 conformity with what was done in the past with such a population (see for exemple,
196 Goodman, Adler, Kawachi, Frazier, Huang, & Colditz, 2001), we choose to measure social
197 class by subjective SES. To indicate where they stood relative to others in their community in
198 France, the participants were asked to place an "X" on one of 10 rungs of a ladder that
199 represented people with different levels of education, income, and occupational status. Each

200 rung of the ladder was represented by a number from 1 to 10, with higher numbers indicating
201 a higher perceived social rank ($M = 5.78$, $SD = 1.66$).

202 **Initial academic achievement.** Previous research has shown that both social class and
203 performance-avoidance goals are usually related to academic achievement. Thus, in order to
204 control for the variance due to initial academic achievement, the participants were asked to
205 report the mean grade obtained during the second quarter of the year in mathematics ($M =$
206 10.42 , $SD = 3.96$), physics ($M = 11.51$, $SD = 2.99$) and life and earth science ($M = 11.88$, SD
207 $= 2.64$). Each of these grades could range from 0 to 20. Intercorrelations among variables are
208 presented in Table 1.

209 **Results**

210 **Overview of the analyses.** Regression analyses were conducted to test whether SES
211 interacted with the mobility manipulation in predicting performance-avoidance goals and each
212 performance score. The regression analyses included three predictors: subjective SES (mean-
213 centered), mobility manipulation (-0.5 for the control condition and +0.5 for the mobility
214 condition), and their interaction. Gender (-0.5 for boys and +0.5 for girls) and initial
215 achievement (mean centered) were entered as covariates. It is worth noting that the "initial
216 achievement" variable entered as a covariate depended on the model. Indeed, mean initial
217 achievement was entered as a covariate for the analyses conducted on the performance-
218 avoidance score; initial achievement in mathematics was entered as a covariate for the
219 analyses conducted on the mathematic test performance; initial achievement in physics was
220 entered as a covariate for the analyses conducted on the physic test performance and initial
221 achievement in life and earth science was entered as a covariate for the analyses involving the
222 life and earth science test. Since none of the IVs were related to gender nor to initial

223 achievement, the interactions between gender, initial achievement and the IVs were not
 224 retained in the final model (Muller, Yzerbyt, & Judd, 2008).

225 **Performance-avoidance goals.**

226 Neither the main effect of SES, $B = 0.03$, $t(207) < 1$, nor the main effect of mobility, B
 227 $= 0.22$, $t(207) = 1.20$, $p = .23$, were significant. More importantly, and as expected, SES
 228 interacted with mobility, $B = -0.28$, $t(206) = -2.45$, $p < .02$, $\eta^2 = .03$, 95% CIs [-0.50, -0.05].
 229 This interaction is depicted in Figure 1. Simple slope analyses revealed that the lower-SES
 230 students who answered the mobility scale endorsed more performance-avoidance goals than
 231 the lower-SES students in the control condition, $B = 0.69$, $t(207) = 2.61$, $p = .01$, $\eta^2 = .03$,
 232 95% CIs [0.17, 1.21]. No such difference was observed among the higher-SES students, $B = -$
 233 0.2 , $t(207) < 1$.

234 **Performance in mathematics.**

235 The main effect of SES was significant, $B = -0.08$, $t(205) = -2.14$, $p = .034$, $\eta^2 = .02$,
 236 95% CIs [-0.16, -0.01]. Surprisingly, the lower-SES students achieved better performances in
 237 mathematics than the higher-SES students. The main effect of mobility was marginal, $B = -$
 238 0.22 , $t(205) = -1.74$, $p = .08$, $\eta^2 = .02$, 95% CIs [-0.47, 0.03] and indicated that making the
 239 mobility process salient further reduced performance. Indeed, when the mobility process was
 240 made salient ($M = 1.10$; $SE = .94$), the students tended to have worse performance scores than
 241 in the control condition ($M = 1.25$; $SE = .94$). As expected, SES interacted with the mobility
 242 manipulation, $B = 0.325$, $t(205) = 4.14$, $p < .01$, $\eta^2 = .03$, 95% CIs [0.17, 0.47]. As illustrated
 243 in Figure2, simple slope analyses revealed that the lower-SES students for whom the mobility
 244 process had been made salient achieved worse performances in mathematics than the lower-
 245 SES students in the control condition, $B = -0.74$, $t(205) = -4.20$, $p < .01$, $\eta^2 = .05$, 95% CIs [-
 246 1.09 , -0.39]. No such difference was observed among the higher-SES students, $B = 0.31$,
 247 $t(205) = 1.70$, $p = .09$.

248 Performance in physics.

249 Neither the main effect of SES, $B = -0.01$, $t(206) < 1$, nor the main effect of mobility,
250 $B = -0.14$, $t(206) = -1.23$, $p = .22$, were significant. Moreover, contrary to our expectations,
251 SES did not interact with the mobility manipulation $B = 0.02$, $t(206) < 1$.

252 Performance in life and earth sciences.

253 Neither the main effect of SES, $B = 0.01$, $t(179) < 1$, nor the main effect of mobility, B
254 $= -0.02$, $t(179) < 1$, were significant. Moreover, contrary to our expectations, SES did not
255 interact with the mobility manipulation $B = 0.11$, $t(179) = 1.19$, $p = .24$.

256 Mediated Moderation.

257 Our final hypothesis was that the effect of the interaction between SES and the
258 mobility manipulation on performance would be mediated by performance-avoidance goal
259 endorsement. In order to test this hypothesis (Figure 3), mediated moderation analyses were
260 run (see Muller, Judd, & Yzerbyt, 2005). Given that our moderation hypothesis was
261 confirmed only on performance in mathematics, we only tested the mediated moderation
262 model on performance in mathematics. A first model assessed the significance of the SES x
263 mobility condition effect on performance in mathematics (i.e., c path), while a second model
264 estimated the SES x mobility condition effect on the performance-avoidance goal
265 endorsement (i.e., a path). As these two models had already been estimated (see previous
266 regression analyses), with both interaction effects being significant, we estimated the
267 following final model. As expected, the results showed that the higher the level of
268 performance-avoidance goal endorsement, the lower the performance in mathematics was, B
269 $= -0.09$, $SE = 0.05$, 95% CI $[-0.18, 0.00]$, $p = .05$ (b path), while the effect of SES on
270 performance in mathematics was non-significant, $B = -0.07$, $p = .06$ (c' path). Further
271 analysis indicates that the indirect effect of SES on performances in mathematics through the
272 adoption of performance-avoidance goals was significant only for the lower-SES students for

273 whom the mobility process had been made salient, $-.21$, 95% CI $[-.31; -.11]$. This indirect
274 effect was not significant for lower-SES students in the control group, $.06$, 95% CI $[-.04; .18]$.
275 Preacher and Hayes's bootstrap method, using PROCESS SPSS macro, Model 8, confirmed
276 the significance of the indirect effect, via performance-avoidance goal endorsement, of the
277 social class x upward mobility condition interaction on performance in mathematics, $B = 0.01$
278 $SE = 0.01$, with a BC of 95% and a CI of 0.00 to 0.04.

279

280

Discussion

281 The goal of the present research was to test the role of the social mobility process in
282 explaining why low-SES high achievers usually tend to endorse more performance-avoidance
283 goals than high-SES high achievers (Jury et al., 2015, 2018). In addition, our goal was to
284 document further effects of the endorsement of such goals on academic performance. The
285 present results support the idea that when the prospect of social mobility is made salient,
286 lower-class high school students are more likely than higher-class high school students to
287 endorse performance-avoidance goals. As previously mentioned, social mobility involves
288 identity change (Amiot et al., 2010), a change that seems to lead lower-class students to use
289 protective mechanisms because they are afraid of potential failure (e.g., performance-
290 avoidance goals). This result is consistent with previous research showing that lower-class
291 students who endorsed more performance-avoidance goals than higher-class students were
292 those who were the most likely to be engaged in the upward mobility process (e.g., high
293 achievers, Jury et al., 2015; or students who are led to think they are performing better than
294 they usually do, Jury et al., 2018). In addition, the present study provides evidence about the
295 causal link between social mobility and performance-avoidance goal endorsement. Indeed, in
296 the present study, the social mobility process was manipulated, rather than simply being

297 evoked as a possible mechanism for explaining the moderation of the effect of social class by
298 academic level.

299 The results of the present study not only document the existence of a link between
300 social class, mobility, and performance-avoidance goals, they also examine the consequences
301 of this process for academic performance. We hypothesized that when the prospect of social
302 mobility is made salient, lower-class high school students should not only endorse more
303 performance-avoidance goals but should also achieve poorer performances than their higher-
304 class counterparts. Past research has already shown that the adoption of performance-
305 avoidance goals is negatively correlated with academic performance (see meta-analyzes
306 Hulleman et al., 2010; Huang, 2012; Van Yperen et al., 2014). Moreover, researches have
307 shown that lower-class students perform more poorly than higher-class students, particularly
308 in highly evaluative situations (Croizet & Claire 1998, Berjot & Drozda-Senkowska, 2007;
309 Smeding, Darnon, Souchal, Toczek-Capelle, & Butera, 2013). Our results complement these
310 contests by showing that as far as mathematic performances are concerned, such a difference
311 is particularly likely to appear when lower-class participants are reminded of the social
312 mobility process that they are engaged in. Thus, the present results confirm that the prospect
313 of reaching a higher academic level than one's parents might be one of the mechanisms that
314 leads lower-class students to achieve poorer grades in mathematics than higher-class students.
315 In a complementary way, the results obtained on the mathematic performance supported our
316 hypothesis that performance-avoidance goals should mediate the relationship between social
317 class and social mobility in terms of performance.

318 It is important to note, however, that the above findings are limited to mathematic
319 performance. There might be several reasons why they were obtained on mathematic
320 performance and not other performance scores including the fact that the effect is small,
321 which can cause random variation across different dependent variables. In a future study, a

322 more reliable measure of performance should be developed. However, it is also important to
323 note that, mathematic exercises may have been more difficult than other exercises (i.e., the
324 score on the mathematics test was lower than that on the other tests ($M_{mathematics} = 1.17, SD =$
325 $0.94; M_{physics} = 2.06, SD = 0.77; M_{life\ and\ earth\ science} = 1.55, SD = 0.98$). Tus, future research
326 should also test the nature of the exercises (mathematics vs. other subjects) or the difficulty of
327 the test as potential moderators of the present findings. In addition, it should be noted that the
328 internal consistency coefficient of the performance-avoidance goal scale was weak. Although
329 this is not unusual in goal-related research using this scale, it would be advisable for future
330 studies to replicate the findings with another, more reliable performance-avoidance goal
331 endorsement scale. Notably, it would be relevant to test whether the revised version of the
332 performance-avoidance goal scale (Elliot & Murayama, 2008) leads, or not, to the same
333 findings (see Bruno et al., 2019 for a comparison of different performance-avoidance scales).
334 Second, performance-avoidance goals were measured only once. Thus, we cannot exclude the
335 possibility that lower-class high school students and higher-class high school students may
336 have differed on their initial level of goal endorsement, even before we made the process of
337 social mobility salient. In future studies, performance-avoidance goals should be measured
338 twice: before and after the social mobility manipulation is made salient. Finally, it is worth
339 noting that a disadvantage of the mobility manipulation is that it could additionally make
340 salient social class background. In future research, social mobility should be manipulated
341 while maintaining constant the activation of social class. For example, manipulate beliefs
342 about the likelihood to move up and down the socioeconomic ladder (Day & Fiske, 2016)
343 could be an interesting option.

344 Despite these limitations, the present findings open up interesting perspectives by
345 showing that the prospect of the social mobility process may be one of the mechanisms
346 behind the difficulties faced by lower-class students in an academic context. In particular,

347 they document that the highest level of performance-avoidance goal endorsement on the part
348 of lower-class students confronted with the prospect of mobility may, in turn, negatively
349 affect their performance in a mathematical task. It is worth noting that, so far, research has
350 mainly studied the effect of social class on the adoption of performance-avoidance goals
351 among undergraduate students. The present results nicely complement these findings by
352 showing that a similar process is also observed among a younger, more gender- and SES-
353 balanced sample of high school students.

354 One might argue that high school students who project themselves into a perspective
355 of upward social mobility (namely, those who plan to enroll in higher education) are not those
356 who most need to be helped, precisely because they are the ones who are succeeding. The
357 present results show that their situation is possibly not as comfortable as it might appear at
358 first sight. Indeed, these students may, on the contrary, be particularly at risk of endorsing
359 performance-avoidance goals and then experience a dramatic fall-off in performance,
360 especially when reminded of the upward mobility situation they are engaged in. Thus, we
361 believe it is important to raise awareness among teachers and educational policy-makers of
362 the fact that lower-class students need to benefit from a high degree of attention in
363 educational interventions, including those students who have the greatest chance of
364 succeeding and achieving a higher educational level than their parents (Stephens, Hamedani
365 & Destin, 2014; Browman & Destin, 2016).

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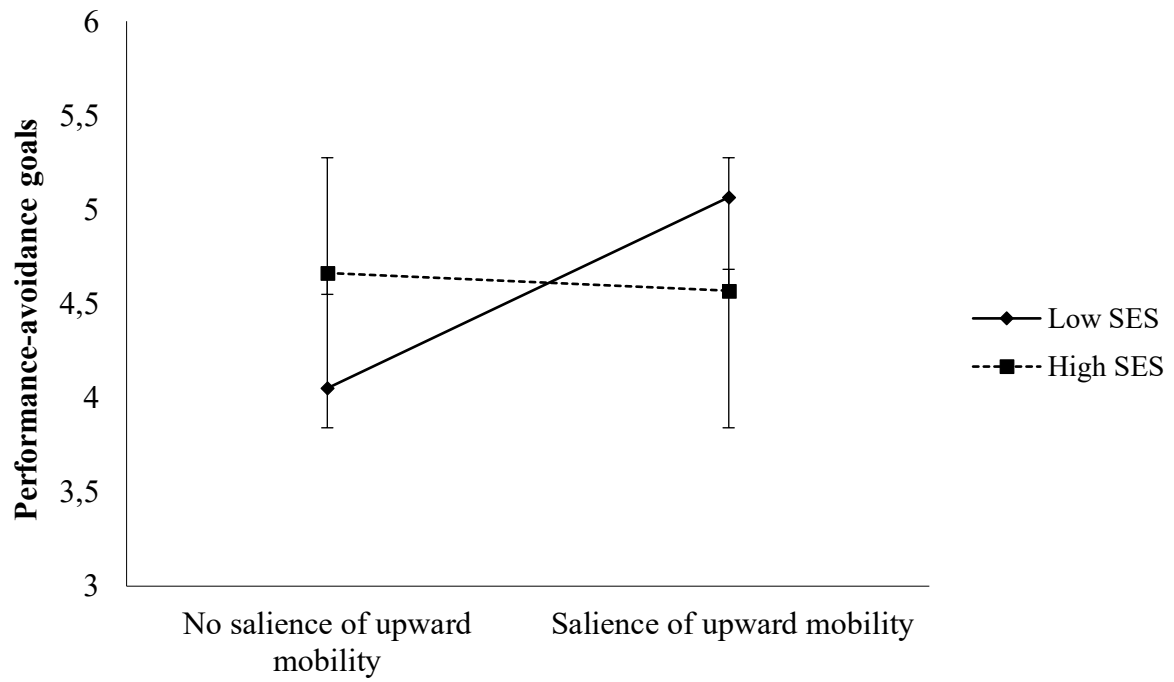
397 Table 1.
398 *Zero-order correlations among variables*

Variables	1	2	3	4	5	6	7	8	9
1. Subjective SES	—								
2. Manipulation of the salience of the mobility process	-.13	—							
3. Performance-avoidance goals	.03	.08	—						
4. Performance in Mathematics	-.14*	-.08	-.18**	—					
5. Performance in Physics	-.01	-.11	.03	.12	—				
6. Performance in Life and Earth Science	-.01	.02	.02	.14*	.08	—			
7. Initial achievement in mathematics	-.06	.10	-.03	.04	-.02	.07	—		
8. Initial achievement in physics	-.03	.18**	.01	-.07	-.02	.09	.65**	—	
9. Initial achievement in earth and life science	-.01	.04	.00	.04	.01	.08	.46**	.60**	—

399 *Note.* Manipulation of the salience of the mobility process was coded -.5 for no salience and
400 +.5 for salience of the mobility process.

401 * $p < .05$. ** $p < .01$.

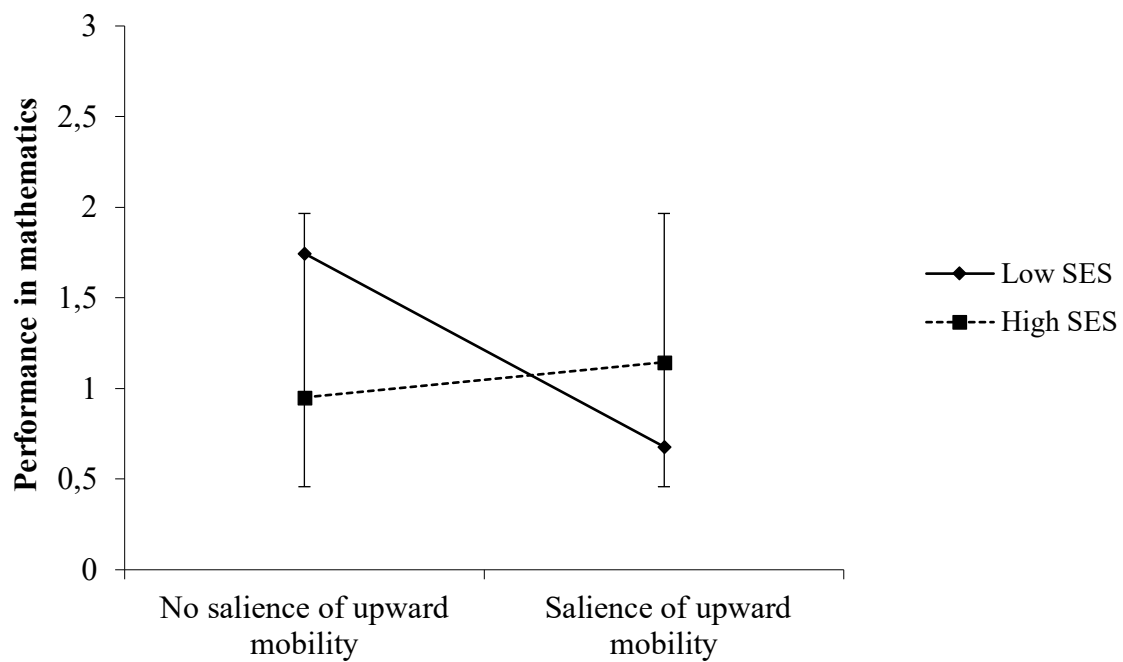
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404 *Figure 1.* Performance-avoidance goals as a function of SES and salience of the Upward

405 Mobility Process. Errors bars represent standard deviation.



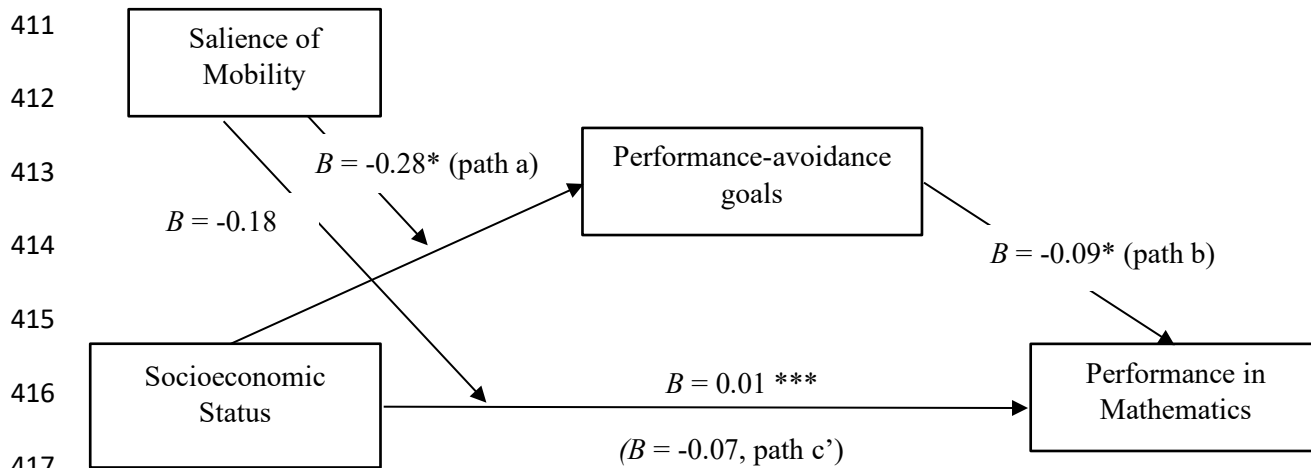
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407 *Figure 2.* Performance in mathematics as a function of SES and salience of the Upward

408 Mobility Process. Errors bars represent standard deviation.

409

410



418 Indirect effect: .01, 95% CI = 0.00 to 0.04, boots = 5000

419 *Figure 3.* Indirect effects of the SES (Socioeconomic Status) by Mobility interaction on
 420 performance in Mathematics through performance-avoidance goals.

421 *Note:* Values indicate non-standardized regression coefficients (B) with and without (in
 422 brackets) the control of performance-avoidance goals. * $p < .05$; ** $p < .01$; *** $p < .001$