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That's not fair! The effects of teacher justice and academic achievement on Self and Other's resistant agency

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Abstract:

Background. Notwithstanding the emphasis on the idea that students should be actively and accountably engaged in their educational pathways, little research has investigated learners' agentic behaviours that take the form of student resistance to adult authority.

Aims. This paper presents an experimental study aimed to assess whether, and to what extent, Student Self and Other resistant agency depends on perceptions of teacher justice and student achievement.

Methods. Participants were asked to read one of four scenarios concerning a generic student asking for the possibility to retake a test s/he had previously failed, with an experimental design including 2 levels of teacher justice \times 2 levels of academic achievement. Then, they answered two items regarding the likelihood of protest on the part of the student depicted in the scenario and enforced by themselves in having to deal with a similar situation.

Results. The multilevel analysis indicated a principal effect of justice and target, with resistant agency rated as more likely in the unjust condition and for the Other. The justice effect was further qualified by an interaction with the achievement level, with resistant agency higher in the unjust and low achievement condition. Finally, a three-way interaction appeared, with Self resistant agency higher in the just and high achievement condition.

Conclusions. These results are discussed in terms of their implications for teacher practices, as they emphasize the importance just learning environments have in allowing students to express their opinions as well as dissent.

Keywords:

Teacher justice, agency, resistance, resistant agency, experiment, secondary school, students, teachers

Data availability statement:

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ACCEPTED MANUSCRIPT

That's not fair!

The effects of teacher justice and academic achievement on Self and Other's resistant agency

Introduction

There is consensus in the Educational Psychology literature that to promote worthwhile learning schools of any level and type should favour student agency and active participation in everyday classroom practices (e.g., Carpenter & Pease, 2013; Helker & Wosnitza, 2016; Molinari & Mameli, 2010). Notwithstanding the emphasis on the idea that students should be actively and accountably engaged in their educational pathways, most of the studies in the field have focused on basically compliant forms of participation (e.g., Reeve, 2012; Renshaw, 2016), that is, students' actions performed under the implicit condition that they should fundamentally comply with teachers' requests and solicitations. Conversely, little research has considered students' agency (e.g., Rajala, Kumpulainen, Rainio, Hilppö, & Lipponen, 2016), which can sometimes take the form of student resistance or a challenge to the adult's authority or decisions.

In this study, we focus on resistant agency perceived in the classroom and referred to the Self and the Other. In particular, we present an experimental study aimed to assess whether, and to what extent, resistant agency depends on the perceptions of teacher behaviour (just vs. unjust) and student achievement (high vs. low).

Student agency

By and large, the concept of agency refers to the individual's ability to transform the social and situated practices in which s/he actively participates (Lipponen & Kumpulainen, 2011; Scott, 2008). In school, student agency corresponds to all those actions that students purposively perform when they intervene and eventually remodel classroom practices in their everyday life (Clark, Howley, Resnick, & Rosé, 2016; Martin, 2016; Mameli, Molinari, & Passini, 2019).

Among the various agentic behaviours that students can perform during classes, some involve actions commonly considered as desirable by teachers, such as “asking questions, expressing opinions, and communicating interests” (Reeve, 2012, p. 165). These actions are agentic, as they have the potential to re-direct the unfolding of interactions (Mameli & Molinari, 2014), and are welcomed as well, as they are usually interpreted by teachers as indicators of student interest and commitment. Other more controversial forms of agency correspond to oppositional or challenging stances taken with the aim of contrasting or changing the course of events that are perceived to be frustrating. The strength of such forms of agency was recently underlined by Wischmann and Riepe (2019), who claimed that “if there is no resistance at all, there is no agency” (p. 5), as student agency basically manifests itself when learners contribute to redefining school practices instead of adapting to the *status quo*. Teachers commonly consider these oppositional behaviours “as disruptive and counterproductive to student learning and classroom functioning” (Goodboy, 2011a, p. 298), and thus tend to condemn them by adopting a *teacher as authority* perspective (Burroughs, Kearney, & Plax, 1989).

In the current article, we focus in particular on this kind of agentic behaviour, that we call *resistant agency*. In schools, these oppositional agentic actions are generally expressed in forms of complaints, disagreements or open challenges performed with the goal of eventually changing a teacher’s decision or a social practice.

In the literature, the issue of student resistance has been addressed in two different ways (for a review, see Winkler & Rybnikova, 2019). Some authors (Moore, 2007; Seidel & Tanner, 2013) have pointed out the negative potential of resistance. For example, off-task behaviours, both active (e.g., disturbing the class) and passive (e.g., avoiding activities), as well as antisocial communication, such as disruption, revenge or deception, are considered to be destructive forms of resistance (Burroughs et al., 1989; Chory-Assad & Paulsel, 2004) aimed at subverting learning. In our view, these actions of resistance do not express student agency, as most of the time they launch

a symmetric “wall against wall” dynamic that does not bring about changes in the learning environment.

Contrariwise, oppositional actions are constructive and agentic when they challenge school social structures or power dynamics in ways that potentially re-direct and transform the activity (e.g., Goodboy, 2011a; Mameli & Passini 2019; Rajala et al., 2016; Rajala & Sannino, 2015). According to Goodboy (2011b), instructional dissent is constructive when “students express their disagreements or complaints about class-related issues” (p. 423). Examples of this form of resistance, reported by Burroughs and colleagues (1989), include communicating complaints directly, giving advice to the teacher or challenging the basis of power. By and large, resistance is agentic and constructive when opposition and challenges are expressed through actions that open to the possibility that teachers and students eventually share a goal, or form a new one, and cooperate in order to realize it. In this sense, resistant agency is not merely limited to student-teacher opposition, but on the contrary it represents a dialogic attempt to start up negotiations with the teacher aimed at modifying, possibly with shared goals, some undesirable practices (Lanas & Corbett, 2011).

Teacher justice and academic achievement on resistant agency

Among the variables that can possibly affect students’ resistant agency, the perceived degree of teachers’ fairness is particularly relevant (Goodboy, 2011a). In the last few decades, a growing number of studies has shown that perceptions of classroom justice are particularly important for student wellbeing, as they have an impact on major cognitive and social outcomes (Berti, Mameli, Molinari, & Speltini, 2016; Donat, Peter, Dalbert, & Kamble, 2016; Resh & Sabbagh, 2017). More recently, Molinari and Mameli (2018) have argued that teacher justice is so significant in promoting a positive school environment that it can be conceptualized as a basic psychological need for students. The teachers’ behaviours that students perceive as fair include, for instance, an even-handed and respectful treatment towards learners, an egalitarian attitude towards all students (without favouritism), and the adoption of clearcut procedures and criteria for awarding grades

(Kearney, Plax, Hays, & Ivey, 1991; Seidel & Tanel, 2013). Grading practices are indeed particularly relevant in the school context. In this respect, students perceive they are treated fairly when they receive the grades they think to deserve, or when they are given the possibility to redress a poor performance by retaking a test or doing extra work (Gordon & Fay, 2010; Horan, Chory, & Goodboy, 2010). Conversely, when students perceive their teacher's behaviour as unfair, they experience distress and psychological disengagement from school life (Kamble & Dalbert, 2012; Mameli, Biolcati, Passini & Mancini, 2018).

Despite the large interest in classroom justice, the issue of how students react when teachers are unfair in their regard is still underexplored. The few studies that have addressed this concern focused overall on university students and showed that teacher injustice seems "to dictate student resistance" (Chory & Goodboy, 2010, p. 190), although passive behaviours are observable as well. Horan and colleagues (Horan et al., 2010), for example, qualitatively examined behavioural reactions to perceived teacher injustice in a sample of 138 undergraduate students. They found that teacher unfairness was a recurrent experience among students, and that the most common reaction was communicating dissent directly to the teacher. Nevertheless, after dissent, the foremost reaction was inaction or acceptance of the injustice. In another study conducted on an adult-student sample (Bolkan & Goodboy, 2016), the authors found that expressions of dissent were likely only when the students perceived a high threat – injustice, for example – and a low or moderate cost of their behavioural reaction.

In the school context, the costs of students' reaction to injustice falls into the sphere of the evaluation processes (Gordon & Fay, 2010). In other words, students feel that a consequence of their reaction might be a mistreatment in the awarding of marks. It is, therefore, reasonable to assume that this perception will be affected by the level of students' academic competence. Several studies (e.g., Gregory, Skiba, & Noguera, 2010; Miles & Stipek, 2006) have indeed shown that academic achievement is far from being independent of student behaviour. Under-achieving students are commonly described as frustrated and disengaged, and this can impact oppositional

conducts and vice versa. Furthermore, teacher perceptions of student task orientation and reactivity behaviours during classes were found to be associated with teacher grading (Mullola et al., 2014) in the sense that the more students' behaviour was seen as resistant and challenging, the more teachers tended to award low grades. Conversely, we can assume that the good and competent student is expected to behave compliantly. However, there are no studies, as far as we know, that have specifically and experimentally addressed this issue.

Overview of the study

We know from research that students may be agentic in contrasting and resisting teacher behaviours perceived to be unfair. However, the literature in the field is still limited and presents some gaps. First of all, most of the existing studies were conducted on undergraduate students (Bolkan & Goodboy, 2016; Chory-Assad & Paulsel, 2004; Horan et al., 2010), while there are no studies on secondary school students. This is a major limitation in the literature, as research (Berti et al., 2016; Resh & Sabbagh, 2017) has shown that the feeling of being treated fairly by teachers is a significant factor for adolescents' positive adjustment. Moreover, to our knowledge, no study has experimentally verified whether and to what extent the perception of being treated in a just or unjust way leads to resistant agency. Indeed, in the field of educational psychology, experimental studies on justice are rare (see Gouveia-Pereira, Vala, & Correia, 2016), and the construct of agency, with few exceptions (e.g., Mameli & Passini, 2019; Reeve, 2012), has been studied by means of qualitative methods (e.g., Wischmann and Riepe, 2019). Also, only a limited number of studies have focused on the association between student achievement and temperament traits (Mullola et al., 2014), showing that students' low reactivity was associated with better grades, while we lack research exploring the differences between low and high achiever learners' reactions when facing just or unjust treatment.

Finally, there is another important gap in the literature, as a comparison of Self and Other agency perceived in the school context has never been conducted before. This is not a minor point. The literature has consistently shown that perceptions of Self vs. Other behaviours can be different,

and these differences are generally explained with reference to a self-enhancement bias (for a review, see Dufner, Gebauer, Sedikides, & Denissen, 2019) according to which people tend to evaluate themselves more favourably as compared with others. Given that resistant agency is fundamentally seen as a negative action having consequences in the school context (Goodboy, 2011a), it is reasonable to assume that students could underrate their own potential degree of resistant agency as compared to what they attribute to students in general.

Starting from these premises, in this study we conducted an experimental investigation aimed to verify whether the perceptions of teacher behaviour (just vs. unjust) and student achievement (high vs. low) affected likelihood estimates of Other and Self resistant agency. We manipulated the experimental conditions relying on four hypothetical scenarios specifically created for this study. As far as justice was concerned, the teacher was described as just or unjust in responding to a student's request aimed at raising his or her final grade in history. As far as academic achievement was concerned, the student was described as having good vs. bad grades in the same subject.

For this study, we advance four hypotheses. First, in line with the literature (Horan et al., Goodboy, 2011a; Seidel & Tanner, 2013), we predict a main effect of justice, with resistant agency being higher in the unjust condition. Second, the achievement level is expected to moderate the main effect of justice. Although this interaction has never been tested before, in line with previous studies (Gregory et al., 2010; Mullola et al., 2014) we assume that low achiever students will be perceived as being more likely to show a higher level of resistance (Bolkan & Goodboy, 2016) in the unjust condition, while we expect no differences between high and low achiever students in the just condition. Third, we hypothesise that the target (Self vs. Other) will moderate the main effect of justice. Based on the self-enhancement bias found in previous studies (Dufner et al., 2019) and on the finding that students' resistant agency is basically perceived as negative in the school context (Goodboy, 2011a; Seiden & Tanner, 2013), we expect that the Other will be described as showing a higher level of resistant agency as compared with the one attributed to the Self, and that this

difference will be higher in the unjust condition. Finally, we predict that both the level of achievement and the target, combined, will moderate the main effect of justice. In line with our previous hypotheses, we anticipate that resistant agency will be higher in the unjust condition (e.g., Goodboy, 2011a), when the agency of low achiever students (e.g., Mullola et al., 2014) and the Other is evaluated. No differences are expected in the just condition.

Method

Participants and procedures

The study was conducted in 2019 on a convenience sample of 620 high school students (57.1% males, 6.3% non-native Italians) coming from three city-based medium-sized and mixed-gender secondary schools situated in Northern Italy. Participants' socio-economic status (SES) was not assessed directly for this study, though school principals reported that students attending the three schools came mostly from middle-class families. Participants, aged 13 to 17 ($M_{\text{age}} = 13.90$, $SD = .56$), were all enrolled in the 9th grade.

Prior to data collection, the students' parents were asked to fill out an informed consent with twelve families either abstaining or refusing. All the students were then asked to voluntarily take part in the study and were reassured about the confidentiality and anonymity of data processing. The researchers administered the self-report instrument online to students in their classrooms during school lab hours. For each class, the filling out of the questionnaire was preceded by a short illustration of the research and its general aims. The research was conducted in agreement with the ethical norms set by the Italian National Psychological Association and obtained the formal approval of the local Ethical Committee.

Experimental design and variables

The experimental design was between-subjects, with 2 justice valences (just, unjust) \times 2 achievement level (high, low). Participants were randomly assigned one of the four scenarios. More in detail, scenario 1 (N=171; 59.6% males) was assigned to all the students born between January and March, scenario 2 (N=133; 53.4% males) to those born between April and June, scenario 3

(N=157; 56.7% males) to those born between July and September, and scenario 4 (N=159; 57.9% males) to those born between October and December. Chi-square test confirmed that observed frequencies for each scenario were similar to the expected frequencies ($\chi^2(3) = 4.90, p = .179$) and that justice conditions ($\chi^2(1) = 0.27, p = .600$) as well as achievement conditions ($\chi^2(1) = 0.00, p = .990$) were equivalent with respect to gender composition.

The questionnaire started with the following statement: "Please read the short text in the box below and then answer the following four questions." In the condition of justice and high achievement, the participants were given the following scenario: "A student who does well in history fails a test. Thus s/he asks the teacher, with the consent of the classmates, to be tested once more in order to keep or increase the final grade. The teacher denies this chance, but offers him/her the opportunity to engage in a supplementary task that will require a lot more time and effort."

In the condition of justice and low achievement, the participants were given the following scenario: "A student who does not do well in history fails a test. Thus s/he asks the teacher, with the consent of the classmates, to be tested once more in order to keep or increase the final grade. The teacher denies this chance, but offers him/her the opportunity to engage in a supplementary task that will require a lot more time and effort."

In the condition of injustice and high achievement, the participants were given the following scenario: "A student who does well in history fails a test. Thus s/he asks the teacher, with the consent of the classmates, to be tested once more in order to keep or increase the final grade. The teacher refuses, without giving an explanation or offering any alternatives."

In the condition of injustice and low achievement, the participants were given the following scenario: "A student who does not do well in history fails a test. Thus s/he asks the teacher, with the consent of the classmates, to be tested once more in order to keep or increase the final grade. The teacher refuses, without giving an explanation or offering any alternatives."

To measure our two dependent variables, participants were asked to think about the scenario they had just read and answer two items on a scale ranging from 1 (Not at all likely) to 10 (Highly

likely): (1) How likely do you think that the student in this situation will complain¹ about the teacher's response? (2) If you were in the same situation, how likely is it you would complain about the teacher's response?

Afterwards, the participants were asked to answer two additional manipulation check questions with regard to justice and achievement level: (3) How fair do you think the teacher's response is? (10-point Likert scale ranging from 1=Very unfair, to 10=Very fair); (4) How good do you think the student is at history? (10-point Likert scale ranging from 1=Not good at all, to 10=Very good).

Results

Plan of analysis

In order to take into account variations due to the fact that students came from different schools, we used a multilevel linear modelling approach to perform all the subsequent analyses: school was the level 2 variable in which the students were clustered. We considered random intercepts across schools and used restricted maximum likelihood (REML) estimates of the parameters.

Manipulation check

In order to verify the effectiveness of justice and achievement manipulation, we added the two manipulation items on hierarchical linear models in which predictors were justice condition (just vs. unjust) and achievement condition (high vs. low). Participants' gender (dummy coded, 0 = male participants) was added as covariates in order to control for its potential effect (results without covariates were unchanged). For justice manipulation ($ICC = 0.02$), the results indicated that participants rated the teacher's behaviour as fairer in the just condition ($EMM = 5.48, SE = 0.27$) than in the unjust condition ($EMM = 4.23, SE = 0.27, b = 1.17, SE = 0.30, t = 3.87, p < 001$) and no other effects appeared to affect the perceived fairness of teacher's behaviour. For achievement

¹ In Italian, the verb "lamentarsi" ("to complain") is commonly used as a synonym for "to protest", and indicates the action of expressing one's discontent.

manipulation ($ICC < 0.001$), results revealed that male participants ($EMM = 6.29, SE = 0.12$) tended to evaluate target students as being more competent than the female participants did ($EMM = 5.67, SE = 0.13, b = -0.62, SE = 0.16, t = 3.76, p < .001$). More importantly, the student depicted in the scenario was considered to be better at history in the high achievement condition ($EMM = 6.99, SE = 0.12$) than in the low achievement condition ($EMM = 4.97, SE = 0.12, b = 1.78, SE = 0.24, t = 7.51, p < .001$). Moreover, the student was rated as slightly better at history in the unjust ($EMM = 6.17, SE = 0.12$) than in the just ($EMM = 5.78, SE = 0.12, b = -0.63, SE = 0.23, t = 2.75, p = .006$) condition. No interaction appeared. In sum, it is possible to state that the manipulations were effective.

Preliminary analysis

We detected no outliers (which were defined as ± 3 median absolute deviation; MAD) from sample medians (Leys, Ley, Klein, Bernard, & Licata, 2013) on dependent measures. We also checked whether gender would affect ratings of resistant agency. In line with previous studies (e.g., Mameli & Passini, 2017), our results indicated that the male participants reported higher Self resistant agency ($M = 5.10, SE = 0.17$) than female participants ($M = 4.27, SE = 0.19, b = -0.42, SE = 0.12, t = 3.36, p < .001$). On the contrary, gender did not affect ratings of the Other's resistant agency ($b = -0.17, SE = 0.11, t = 1.62, p = .106$).

Hypothesis testing

We performed a multilevel analysis 2 (justice: just vs. unjust) x 2 (achievement: low vs. high) x 2 (target: Other vs. Self) with the target as within-participant variable and resistant agency as dependent variable. Moreover, gender (dummy coded, 0 = male participants) was added as covariates ($ICC = 0.01$). The model explained a satisfactory portion of variance as indicated by the pseudo- R^2 of .60 and the Ω^2_0 (Xu, 2003) of 0.74.

An unexpected effect of the target emerged ($b = 0.45, SE = 0.05, \beta = .15, t = 8.54, p < .001$) indicating that resistant agency was higher for the Other ($EMM = 5.66, SE = 0.18$) than for the Self ($EMM = 4.76, SE = 0.18$). In line with hypothesis 1, our results revealed that resistant agency was

higher in the unjust ($EMM = 6.16, SE = 0.20$) than in the just condition ($EMM = 4.26, SE = 0.20, b = 0.95, SE = 0.10, \beta = .32, t = 9.93, p < .001$). Importantly, this effect was qualified by an interaction with achievement level ($b = 0.21, SE = 0.10, \beta = .07, t = 2.23, p = .026$). In line with our expectations (hypothesis 2), resistant agency was higher in the unjust and low achievement condition while, contrary to our predictions, resistant agency was higher for high achiever students than for low achiever students in the just condition (see Table 1 and Figure 1). Consistently with hypothesis 3, we found that the target moderates the effect of justice ($b = 0.12, SE = 0.05, \beta = .15, t = 2.33, p = .020$). As predicted, we found that participants in the unjust condition evaluated the Other as more resistant than the Self ($EMM = 6.73, SE = 0.22$ and $EMM = 5.58, SE = 0.22$ respectively, $d = 1.15, SEd = 0.15, t = 7.46, p < .001$, Tukey's adjustment) and this difference was stronger than in the just condition ($EMM = 4.58, SE = 0.21$ and $EMM = 3.93, SE = 0.21$ respectively, $d = 0.66, SEd = 0.14, t = 4.54, p < .001$, Tukey's adjustment, see Table 1 and Figure 2). Finally (hypothesis 4), a three-way interaction appeared ($b = 0.11, SE = 0.05, \beta = .04, t = 2.09, p = .037$). In order to understand this effect, we broke down the three-way interaction into two-way interactions. When participants rated the Other's resistant agency, no interaction between justice and achievement conditions appeared ($b = 0.41, SE = 0.44, t = 0.95, p = .343$) so that resistant agency was higher in the unjust condition regardless of the achievement level of the Other. When instead participants rated Self resistant agency, an interaction between justice and achievement appeared ($b = 1.30, SE = 0.44, t = 2.96, p = .003$). More precisely, and contrary to hypothesis 4, ratings of Self resistant agency were stronger in the high achievement condition ($EMM = 4.33, SE = 0.26$) than in the low achievement condition ($EMM = 3.53, SE = 0.26$) only when the situation was described as just (see Table 1 and Figure 3).

Discussion

In this experimental study, we investigated whether, and to what extent, learners' perceptions of teacher fairness and student achievement affected likelihood estimates of Self and

Other's resistant agency. The main findings and educational implications are discussed in the following sections.

The principal effect of justice

Consistently with the literature (Horan et al., 2010; Goodboy, 2011a) and hypothesis 1, we found that resistant agency, regardless of the other considered variables, was higher in the unjust condition. Although this result was expected, it nonetheless represents an interesting finding considering that hitherto studies on this association only considered university students and were not conducted via experiments (Chory & Goodboy, 2010). For early adolescents as well as for young adults, the perception of being treated in a just manner is thus confirmed as a crucial quality of educational contexts (Resh & Sabbagh, 2017), important to the point that its absence seems to be enough to trigger student resistant agency presumably aimed at favouring or reinstating better learning conditions.

The moderator effect of academic achievement

In line with hypothesis 2, in the unjust condition resistant agency was evaluated as more likely for low achiever students. Consistently with an undesirable view of resistant agency (Goodboy, 2011a), as well as with the already known association between poor academic success and challenging conducts (Mullola et al., 2014), this study experimentally confirmed that under-achieving students were perceived by their peers as being more prone to questioning the teacher's undue power. More in detail, and in line with previous investigations (Bolkan & Goodboy, 2016), our findings show that dissent is more likely to occur in case of elevated threats (in this study, the injustice of not being given the chance to retake a failed test) and moderate costs (there is nothing to lose, for the student described in the scenario).

In addition, the unexpected results concerning the justice condition are even more interesting for our discussion. Our analysis indeed showed that in the just condition the effect of achievement was reversed, with high achiever students rated as being more agentic than low achiever ones. To comment on these results, we put forward two considerations. The first concerns low achiever

students who – in contrast with the fact that they are commonly described as enacting challenging behaviors – reveal they are actually willing to uncritically accept teachers' instructions (in this study, doing extra work in order to retake a failed test) if these requests are perceived as meeting their needs (in this scenario, having a second chance to improve their performance). As far as high achiever students were concerned – that is, students who are commonly described as enacting compliant conducts – our study shows that they feel confident enough to resist agentically when the teacher is perceived as being fair, that is, when they presumably feel that the risk of negative consequences for their resistant stances are limited. This finding highlights the importance for teachers to adopt a situational view in classroom management.

The (principal and) moderator effect of the target

The target proved to be more important than anticipated, as we found an unpredicted principal effect, with the Other's resistant agency higher than the Self one. In addition, and in line with our third hypothesis, our findings showed that this discrepancy was significant both in the just and even more in the unjust conditions. These results are particularly intriguing as, to the best of our knowledge, no previous research tested the existence of a difference between resistant agency of a student in general and of the adolescent in the first person. Although these findings should be interpreted with caution and require future investigation, we advance the idea that students perceive resistant agency as a counterproductive conduct (Goodboy, 2011a), especially when they imagine themselves as being involved in an unfair situation. Probably due to a self-enhancement bias (Dufner et al., 2019), they tend to remain in the shadows, and prefer to consider Others as being more prone to challenge the teacher's authority. It is reasonable to conclude that in this way students defend themselves from possible negative reactions on the part of the teachers. This result should be carefully considered by all the scholars and practitioners working in schools, as it reveals the students' tendency to withdraw from school life and waive upholding their own rights.

The combined moderator effect of achievement and target

The fourth hypothesis of our work was disproved, as no interaction was found between target and achievement in the unjust condition. In its place, our results showed an unexpected interaction between these variables in the just condition, with resistant agency higher for high achiever students when the Self was concerned. As stated above (see the discussion of our third hypothesis), it is possible that competent students feel more confident in expressing their dissent in an educational context perceived to be safe, when they trust their teacher and feel they are treated fairly. The three-way interaction added some important information to this finding, as this disposition was evident only when it applied to the student directly. This is a very interesting result especially in the light of the main target effect, showing the Other's resistant agency to be higher than the Self one. This seems to indicate that when adolescents identify with a *good* student, they feel able to exercise the power to directly oppose and resist the teachers' instructions in situations of justice, that is, when they perceive that their dissent does not bring about negative consequences.

Limits and conclusions

This study has some limitations that should be acknowledged. First of all, our data are based on a single Italian sample, which clearly limits the generalizability of our results. Another critical point might be that we rely on the use of single items in order to measure dependent variables. This can raise concerns about the measurements' reliability. It is worth noting, however, that single-item measures are considered appropriate when constructs are concrete and unidimensional, as it is the case for agency (e.g., Diamantopoulos, Sarstedt, Fuchs, Wilczynski, & Kaiser, 2012; Fisher, Matthews, & Gibbons, 2016; Mameli & Passini, 2019). A third limitation is that we measured perceptions of resistant agency, that is, a second-order level sense of agency (Gallagher, 2012) referred to an introspective (i.e., relatively detached from the current action) and reflectively conscious activity, regarding possible intentions (when the target was the Self) and social representations (when the target was the Other), respectively. Although it is legitimate to assume that this second-order level sense of agency is not disconnected from real practices (Gallagher, 2012), further studies are needed to verify the possibility to generalize our results to enacted agentic

behaviours. Finally, we are aware that focusing on complaining as a unique form of resistant agency is reductive, as resistant agency – and complaining as well – can take on several forms which the experiment described here was not able to capture. Moreover, while some of the students might see complaining as a possible path for them to take, others might react in different ways. For these reasons, future studies should consider providing students with alternative forms of resistant agentic behaviours.

Notwithstanding these shortcomings, the results presented in this study are very promising. In the first place, the principal effect of justice corroborates the assumption that student resistant agency deserves to be considered as an important and constructive expression of the learners' efforts to improve their educational environment (Mameli & Passini 2019; Rajala et al., 2016). In fact, our findings reveal that at school students perceive oppositions and challenges as ways to react when they feel that their need to be treated fairly is violated. For this reason, teachers should pay attention to avoid condemning learners' challenges to their power *a priori* (Goodboy, 2011a), and should instead make every effort to eventually change the practices that students perceive to be unfair or frustrating. Moreover, the main effect of the target raises questions for both researchers and school professionals. Although resistant agency could be seen as unwelcome and undesirable by adults, it nevertheless represents a good opportunity to improve and renew school practices, and is overall an important indicator of the responsibility students take on in actively shaping their learning environments (Rajala et al., 2016). In these terms, students' general reticence in attributing agentic actions to themselves seems to suggest that they feel insecure in challenging the teacher's power, and would prefer to transfer to others the responsibility for change. The learning environment the students perceive is thus critically important. For students to be direct protagonists in acting upon and transforming educational practices, teachers should guarantee a safe and just space, where learners can express their opinions as well as their dissent.

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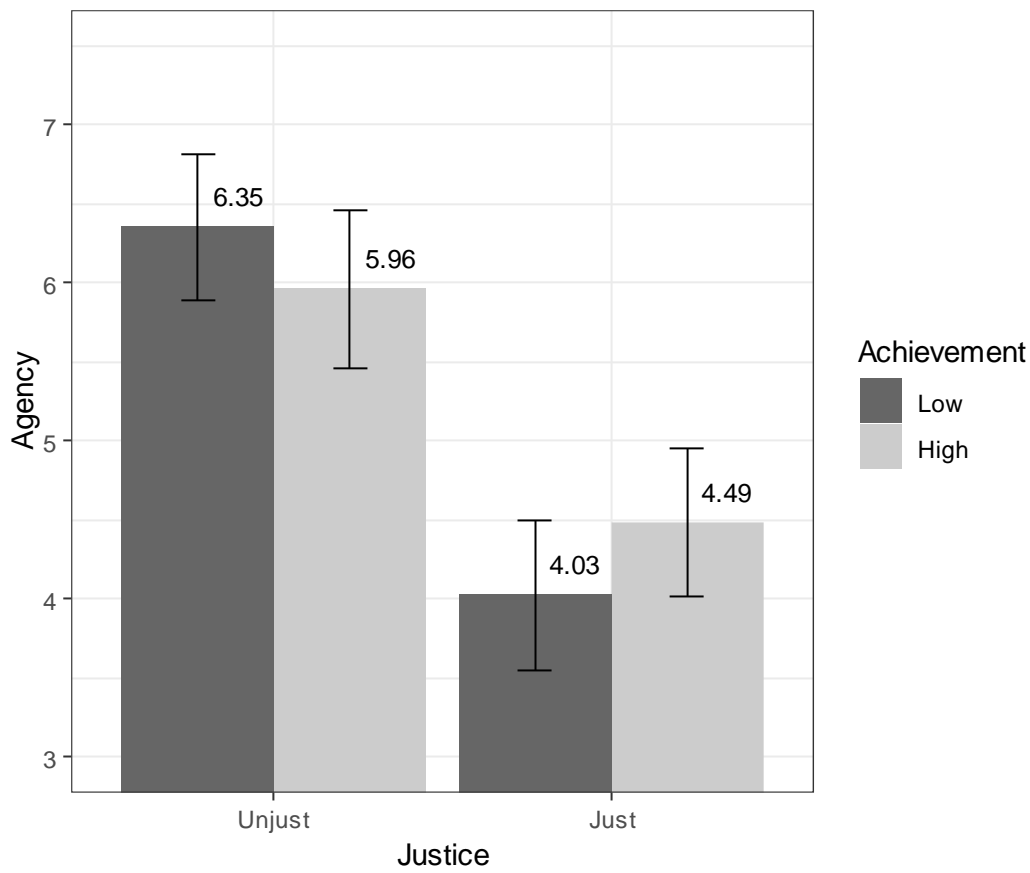
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Table 1. Descriptive statistics of student resistant agency ratings according to teacher justice, student achievement and target.

				High achievement		Low achievement	
		<i>EMM</i> [95%CI]	<i>SE</i>	<i>EMM</i> [95%CI]	<i>SE</i>	<i>EMM</i> [95%CI]	<i>SE</i>
Just	Other	4.58 [3.92; 5.25]	0.21	4.64 [4.03; 5.25]	0.26	4.53 [3.92; 5.13]	0.26
	Self	3.93 [3.26; 4.59]	0.21	4.33 [3.72; 4.94]	0.26	3.53 [2.92; 4.13]	0.26
	Total	4.26 [3.51; 5.01]	0.20	4.49 [3.87; 5.10]	0.24	4.03 [3.42; 4.63]	0.24
Unjust	Other	6.73 [6.11; 7.34]	0.22	6.58 [5.96; 7.19]	0.28	6.88 [6.29; 7.47]	0.26
	Self	5.58 [4.97; 6.20]	0.22	5.34 [4.72; 5.95]	0.28	5.83 [5.24; 6.42]	0.26
	Total	6.16 [5.48; 6.83]	0.20	5.96 [5.36; 6.56]	0.25	6.35 [5.77; 6.94]	0.24

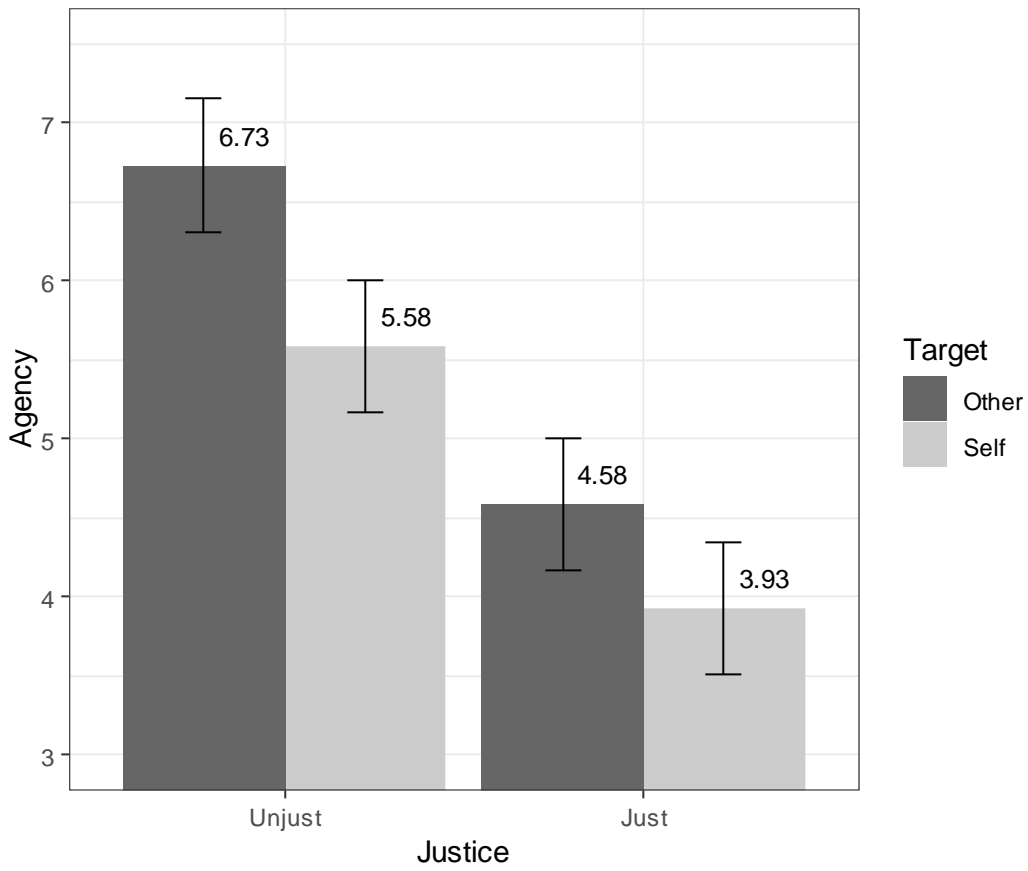
Note: N = 620. EMM = estimated marginal means.

Figure 1. Teacher justice \times student achievement interaction on ratings of student resistant agency
(Self and Other combined)



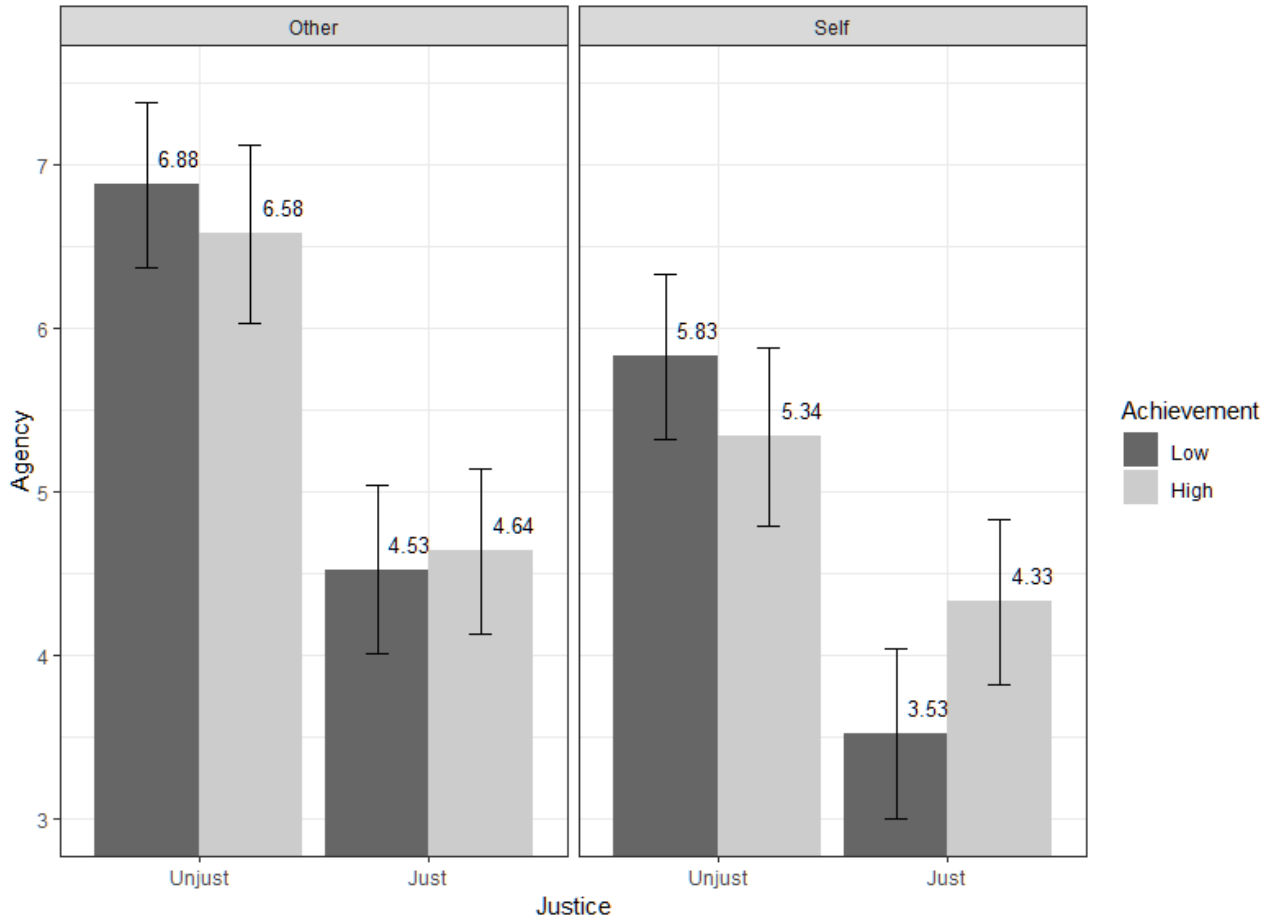
Note: bars represent 95% confidence intervals.

Figure 2. Teacher justice × target interaction on ratings of student resistant agency



Note: bars represent 95% confidence intervals.

Figure 3. Student resistant agency rates according to teacher justice and student achievement conditions, and target.



Note: bars represent 95% confidence intervals.