Peer-rejected students: an analysis of their self-regulatory mechanisms

Jakub Hladik; Karla Hrbackova

Department of Pedagogical Scineces, Faculty of Humanities, Tomas Bata University in Zlín, Czech Republic

Abstract

Self-regulation is an essential factor in school well-being and plays a significant role in peer rejection. The connection between peer rejection and self-regulation varies according to the type and quality of peer interaction (e.g., rejection or acceptance). The nature of interactions with peers influences different self-regulatory mechanisms; therefore, it can be assumed that there will be differences in the mechanisms of self-regulation among peer-rejected students. This study analyzes a group of peer-rejected students from the perspective of self-regulatory mechanisms. The participants consisted of 219 students deemed as peer-rejected. The respondent set was obtained from a randomly selected sample of 1,625 lower secondary students in the Czech Republic. Results based on a cluster analysis enabled the identification of five groups of peer-rejected students, each of which differed in terms of self-regulation skills, emotional regulation, self-regulatory failure, and perceived level of peer rejection. Thus, the respondents were characterized in the following five categories: “the Outsiders,” “the Misfits,” “the Overthinkers,” “the Poker Players,” and “the Trapped Despite the Odds.” Intergroup differences in terms of self-regulatory mechanisms were identified and discussed.

Keywords: peer-rejected students; self-regulatory mechanisms; emotional regulation; self-regulation failure

1. Introduction

Peer rejection and other phenomena such as peer victimization and social withdrawal can be found in the school social environment globally regardless of cultural context. Previous empirical studies show that a common cause of rejection is a failure of

self-regulation (Baumeister et al., 2005). While peer relationships are thought to strongly influence self-regulation ability (Williams & Nida, 2017), the connection between peer rejection and self-regulation varies depending on the type and quality of peer interaction (King et al., 2018), hence the relevance of research into how self-regulatory mechanisms of peer-rejected students function and if differences in these mechanisms can be identified.

2. Peer rejection

Results from a study of grade school pupils show that peer rejection creates constraints that inhibit the rejected student's classroom participation, and the alleviation or total cessation of rejection enables the child to become a more active and cooperative participant in classroom activities (Ladd, Herald-Brown, & Reiser, 2008). The basic psychological need to belong has been defined as the innate human tendency to gain acceptance and avoid rejection. The individual's need to belong is frustrated by social exclusion, which is typical for peer rejection. Among children, social exclusion includes the lack of needs fulfillment and social marginalization (Stenseng et al., 2015). Non-accepted persons suffer social pain, which is analogous in its neurocognitive function to physical pain. Like a signal alerting us when we have sustained physical injury, social pain signals damage to our social connections, allowing restorative measures to be taken (Eisenberger, Lieberman, & Williams, 2003). While the perception of being accepted into a social group is an almost indispensable goal of human striving, obtaining such acceptance can be a long and difficult task. It may entail years of learning how to behave in socially acceptable ways, acquiring marketable skills, cultivating positive relationships, and building a favorable reputation among a particular group. To succeed at these endeavors, the individual must develop an adequate capacity for altering her / his behavior to conform to externally (socially) defined standards. This capacity is often

defined as self-regulation, a term that will be employed in this way in this article. Another premise of the present paper is that one of the overarching purposes of self-regulation is to secure acceptance by others (Baumeister et al., 2005). In what can form a vicious circle of behaviors, social exclusion undermines the child's development of self-regulation, whereas poor self-regulation increases the likelihood of exclusion (Stenseng et al., 2015).

Two groups of students are mentioned most often in the literature as most at risk of being rejected by peers: the socially withdrawn and the aggressive. Children who are socially withdrawn, i.e., shy, submissive, less assertive, unable to stand up for themselves, and perceived as peculiar, are at high risk of being rejected and victimized by peers. (Wei & Chen, 2009). Wei & Chen (2009) examine relationships among social withdrawal, peer rejection, and peer victimization. The researchers propose a model in which peer rejection is a mediator between social withdrawal and peer victimization. The second group at risk of peer rejection is represented by aggressive children. Brock et al. (2006) present a set of results indicating that over 55% of rejected children display clinically significant aggression levels. Children who display aggressive behavior show deficits in social information processing skills, such as encoding and interpreting social cues and generating, evaluating, and enacting prosocial responses (Baumeister et al., 2005).

Aggressive behavior and social withdrawal represent two types of deviation from peer group norms. Both aggressive and withdrawn children have generally been found to be peer-rejected. Whereas aggressive children were more rejected in groups in which withdrawn behavior was common than in groups where aggressive behavior was common, *vice versa*, withdrawn children were more rejected in groups where aggression was common than in groups in which withdrawal was common (Mikami,

Lerner, & Lun, 2010). In addition, the assessment of aggressive behavior by peers can change over time. Sandstrom & Coie (1999) determined that aggressive behavior was positively related to status improvement among initially rejected boys. In some cases, certain types of aggressive behavior may become redefined as status-enhancing among older age cohorts in general, a result found in some middle school contexts.

Besides these two characterized groups, there is a lack of detailed knowledge about internal differences among peer-rejected students, i.e., these children have traditionally been understood as an amalgamated monolithic population. In an attempt to generate more sophisticated knowledge about differences among these children and thus foster more detailed ways of supporting them, in this study, we sought to determine if peer-rejected students can be characterized more precisely in terms of the self-regulatory mechanisms.

3. Self-regulation

Generally, self-regulation is defined as the ability to alter or modify one's thoughts, feelings, or behaviors. It represents a process that enables individuals to override their putative, naturally selfish inclinations in order to remain in line with the standards set by their social group (Baumeister & DeWall, 2005). Self-regulation is the capacity to alter interactive responses to achieve a desired state or outcome that otherwise would not arise naturally (Bauer & Baumeister, 2011). In terms of the relationship between peer rejection and self-regulation, two modes can be described (cf. Baumeister et al., 2005). In the first mode, self-regulation is understood as a cause of peer rejection (e.g., children with poor self-regulation are less accepted and less popular with peers). In the second mode, rejection might serve as a stimulus towards improvement in self-regulation, with the basis for this prediction being the assumption that individuals have a strong and basic need to belong. Rejection might increase self-

regulation, especially in circumstances in which some aspect of the self is perceived to have contributed to the rejection (Baumeister et al., 2005). These divergences indicate that various sets of causes and effects of peer rejection may affect a student's level of self-regulation.

Self-regulation is important for school readiness and school success, as starting school constitutes a critical developmental period in which children are involved in more structured and academically oriented environments (Montroy et al., 2016). At school, self-regulation can be considered a tool for adaptation to the classroom and to otherwise interacting with others outside of the family unit. Functioning in communities requires that individuals transform selfish impulses into behaviors that support group interests, substitute aggressive tendencies for prosocial behaviors, and adhere to rules and laws governing social life. Cultural life is thus replete with self-regulatory dilemmas that people must master to live together and reap the benefits of socialization (Bauer & Baumeister, 2011). Low levels of self-regulation have typically been connected to higher levels of problem behavior in childhood and adolescence (Finkenauer et al., 2005; Tangney et al., 2004).

Stenseng et al. (2015) present a complex contemporary view regarding self-regulation. They describe the process as including both the control over immediate impulses, such as the inhibition of anger (e.g., when being bullied), as well as the allocation of cognitive resources, such as sustaining attentional focus (e.g., in completing a school task). This means that the person must summon the necessary inner psychological resources to alter their behavior to bring the individual closer to internally held standards or goals. Individuals, however, possess only a limited supply of willpower dedicated to acts of self-control and other executive functions (Bauer & Baumeister, 2011).

When people self-regulate, they are frequently confronted with potentially emotion-arousing situations. Processes of self-regulation are therefore closely connected with processes of emotion regulation. (Koole, Van Dillen, & Sheppes, 2011). The skills for managing emotions allow children and adolescents (and adults) to inhibit inappropriate impulses, direct their behavior constructively, explore and adapt to new environments, people, and objects, and be better accepted by their peers. In contrast, many longitudinal studies have revealed how the deregulated expression of emotional states during childhood and adolescence creates problems in terms of the psychological and social adjustment of individuals in both the short and long term (Sabatier et al., 2017).

3. 1. Differences in self-regulation among the peer-rejected students

Comparing the behavior of rejected and accepted individuals, we found that rejected people are more likely than others to behave aggressively (Buckley, Winkel, & Leary, 2004). They are less likely to act pro-socially, for example, by cooperating with someone or being willing to provide help (DeWall & Twenge, 2013). Rejected individuals also tend to show self-destructive tendencies manifested in an increase in self-harm, such as risk-taking and other potentially harmful choices (Twenge, Catanese, & Baumeister, 2002). At the same time, they have been found to exhibit a distorted perception of time, a seemingly lethargic passivity as well as the avoidance of self-awareness (Twenge, Catanese, & Baumeister, 2003). One reason for rejection has been found to be a failure in self-regulation (Baumeister et al., 2005). In other words, rejection based on certain undesirable traits or behaviors of the rejected has been associated with the individual's failure to self-regulate behavior. It might be assumed that the optimal or most adaptive response to social rejection is an effort by the rejected

to improve the situation and to stimulate efforts to improve self-regulation. Nevertheless, socially rejected individuals show the opposite tendency.

For example, rejected individuals have been shown to become aggressive, relatively antisocial, selfish, impulsive, and otherwise poorly self-controlled (Baumeister et al., 2005; Twenge et al., 2001; Warburton et al., 2006; Williams, 2007). Findings somewhat in contrast point to possible desires for social connection (Gardner et al., 2005; Maner et al., 2007; Williams et al., 2000), but these tendencies have been shown to be ambiguous.

Baumeister et al. (2005) aimed to clarify why self-regulation is not enhanced due to social rejection. The researchers found that socially rejected individuals become unwilling rather than unable to self-regulate. The self-regulation capacity remains intact due to social exclusion, but the excluded person usually does not want to invest the effort required to increase self-regulation (Baumeister et al., 2005). Self-awareness can also be a contributing factor (Twenge, Catanese, & Baumeister, 2003). Effective self-regulation requires a certain degree of self-awareness, which is an essential source of self-monitoring and self-change (Heatherton, 2011). Following instances of rejection, self-awareness is associated with the situation that caused the rejection in the first place. Self-regulation may thus be aversive in this respect (Baumeister et al., 2005).

Some studies show that emotional distress leads to the failure of self-regulation (Tice et al., 2001). These conclusions suggest that social rejection, accompanied by emotional anxiety, can cause a weakening of self-regulation.

Nevertheless, previous research has shown the general tendency of the behavioral effects of rejection not being mediated by emotional distress (Buckley, Winkel, & Leary, 2004; DeWall, et al., 2007; Twenge et al., 2001). Recent evidence suggests that social exclusion creates widened emotional and physical insensitivity as

opposed to acute suffering (DeWall & Baumeister, 2006). However, some previous experiments have shown that individuals respond to social exclusion with emotional suffering (e.g., Williams et al., 2000).

Peer rejection has been associated with impaired emotional regulation in adolescents at a later point in time, including weak emotional awareness, maladaptive emotion expression, and increased rumination (McLaughlin, Hatzenbuehler, & Hilt, 2009). Previous research suggests that mutual rejection reduces perseverance due to frustration (Baumeister et al., 2005; DeWall et al., 2008; Nesdale & Lambert, 2008). Current research suggests that this reduced persistence may reflect impaired distress tolerance. Overall, these findings indicate that negative interactions, in particular rejection, may reduce the extent to which adolescents persist in difficult and frustrating tasks (King et al., 2018).

Experimental testing of this theory, primarily performed among young adults, suggest that rejection by unknown peers reduces the self-regulation of behaviors such as attention and perseverance, while it increases reward orientation (Baumeister et al., 2005; DeWall, Baumeister, & Vohs, 2008). Research shows that self-regulation is influenced by the nature of the context, namely that peers influence self-regulation and that the effects of action depend on the nature and quality of the interaction. Specifically, exposure to either acceptance or rejection by peers leads to an improvement in cold cognitive control (inhibition and switching) but a deterioration in hot cognitive control. Exposure to rejection leads to decreased distress tolerance and increased sensitivity to losses (King et al., 2018).

The Optimal Distinctiveness Theory (Brewer, 1991) is based on the assertion that people have competitive needs for assimilation (feeling that they are part and accepted by members of one group) and differentiation (feeling different from members

of one group). As group membership becomes increasingly inclusive, the need for assimilation is satisfied, and individuals lose the motivation to act in a way that helps them integrate into the group (Pickett, Silver, & Brewer, 2002). Conversely, when people feel excluded from the group, their need for assimilation increases, and they change their behavior to assimilate.

Consistent with this theory, DeWall et al. (2008) found that the effects of social acceptance and social exclusion on self-regulation depend on the prospect of future acceptance. Their findings suggest that the prospect of social acceptance may prove crucial in determining whether social exclusion causes people to behave in a desirable or undesirable manner.

Peer rejection and other negative phenomena such as peer victimization and social withdrawal are closely related to self-regulatory mechanisms. Still, given that self-regulatory mechanisms are composed of several processes, it is unclear whether this rejection affects self-regulation mechanisms in different ways. Thus, it can be assumed that peer-rejected pupils will not remain a homogeneous group and that intergroup differences will emerge among peer-rejected pupils. We base this assumption on the fact that in the school environment, students are regularly exposed to instances of peer interaction of varying intensity, quality, and type. At the same time, these social interactions affect various mechanisms of self-regulation (including motivation to join a peer group). Therefore, this topic merits the attention of researchers attempting to improve school well-being. We have attempted to contribute to that process here.

4. Methods

4. 1. Research objectives

The interviews that our team conducted during this research project with peer-rejected students have led us to the supposition that peer-rejected students are not examined most effectively as a uniform, monolithic group. Individual differences in self-regulatory mechanisms among peer-rejected students can be expected, but can clearly defined groups be identified which show common traits? The research aimed to analyze a set of peer-rejected students from the perspective of self-regulatory mechanisms and to attempt to identify intergroup differences in these mechanisms.

4. 2. Participants

The set of peer-rejected students (n = 219; girls n = 135, boys n = 84; average age = 13.3) were obtained from a randomly selected sample of 1,625 secondary school students in the Czech Republic, i.e.,13.5% of the research group. As this is a representative sample, this share of rejected students can be expected in the entire population of lower secondary students in the Czech Republic. Lower secondary education involves students from 11 to 15 years of age and represents the second stage of the basic education system. Out of an overall total of 368,000 lower secondary school students in the Czech Republic, the research sample can thus be extrapolated to almost 50,000 rejected students in the whole country.

4. 3. Measures

A *sociometric method* was used to identify and select peer-rejected students. Peer status was measured by the sociometric marker “my class”. Students were asked to complete six sentences concerning their classmates, for example, “My friends in the

class are …" (positive choice) and "My friends in the class are not …" (negative choice). There was no limit to the number of choices. Self-nomination was not allowed. The positive choice and negative choice items were used to calculate a social preference index for each student according to the procedure of Coie, Dodge, & Cappotelli (1982). A Z-score was used to standardize each student's peer status, by which rejected and accepted students were identified. The rejected group consisted of all students who received a social preference score of less than -1.0. (standardized z-score). Values greater than -1 indicated a positive social preference score (acceptance); values less than -1 indicated a negative social preference score (rejection).

Self-regulation skills indicating self-regulated behavior were determined by the *Means-Ends Problem-Solving* procedure (MEPS). This test is focused on interpersonal cognitive problem solving, i.e., in our case, the students' level of self-regulation skills (Platt & Spivack 1989). Students were asked to complete the middle of a story for which the beginning and the ending are provided. The beginning of the story presents a problem (e.g., "You and your classmate had agreed to work on a group task together, but s/he chose to work with someone else in the end."). The end of the story shows a successful resolution to the situation (something like a happy ending, e.g. "Finally, you get to work with the classmate you had agreed to work with."). Students were asked to complete the story by connecting the beginning and the ending with their own contribution which fits into the story. The middle section could be as long or short as necessary. Five of these interrupted stories were provided to students to be completed.

Although MEPS offers the possibility for respondents to write as many new stories as they can, our set of students were instructed to only use the best story (the most suitable to his/her situation). Answers were assessed on the 4-point scale (from 0 to 3), with 0 indicating no answer or total irrelevance, and 3 indicating a completely

relevant answer, i.e., signifying the ability to regulate their behavior in order to solve the problem successfully. The students were able to obtain a maximum of 15 points, whereby a higher score corresponded to a greater degree of use of self-regulation skills during interpersonal cognitive problem solving (Hrbackova & Balaban Cakirpaloglu, 2020). The resulting Cronbach's coefficient was $\alpha = .81$.

The *Cognitive Emotional Regulation Questionnaire* (Garnefski & Kraaij 2006) and the *Emotion Regulation Questionnaire* (Gross & John 2003) were adapted into one tool to measure the students' emotional regulation, i.e., strategies that the students use when they are exposed to a stressful or unpleasant situation at school. The adapted questionnaire contains 18 items measured on a five-point scale expressing frequency of occurrence from 1 (almost never) to 5 (almost always). A higher score represents a greater degree of use of the specific strategy. Here the Cronbach's coefficient was $\alpha = .75$. Five emotional regulation strategies that explain 51.65 % of the variance were identified on the basis of an exploratory factor analysis (principal components method, varimax rotation, Bartlett's test $p < .001$, KMO test = .79). The strategies were labeled as such: Rumination (F1), Acceptance and Positive Reappraisal (F2), Positive Refocusing (F3), Blame (F4), and Suppression of Emotional Manifestations (F5). Aggregate emotional regulation strategies were suggested on the basis of a content analysis of items and correlations among factors. Adaptive strategies involve Acceptance and Positive Reappraisal (F2) and Positive Refocusing (F3), while Rumination (F1) and Blame (F4) were identified as non-adaptive strategies. Suppression of Emotional Manifestations (F5) was not included in any of the strategies. Using adaptive strategies usually indicates an attempt to identify a positive aspect of a given situation. Students who use this strategy most often are able to view the problem as an opportunity for personal growth, although this is not necessarily a conscious

process. These students can change the focus of their attention to a positive experience and concentrate on more pleasant matters. Students who use more non-adaptive strategies of emotional regulation often turn their attention to the negative experience, e.g., constant rumination over the problem, exaggeration of the given situation, and blaming other people.

The *Failure of Self-Regulation Questionnaire* assesses students' self-regulation failure through 17 items to closed yes/no questions. The questionnaire contains four dimensions of failure: behavioral regulation (question e.g. "It often happens to me that I cannot resist the temptation to do something I should not."), emotional regulation (e.g. "It often happens to me that I cannot calm down at school."), cognition regulation (e.g. "I do not think about why something went wrong"), volition (e.g. "It often happens to me that I give up easily."), and attention regulation (e.g. "It often happens to me that I cannot concentrate on something."). On the basis of an exploratory factor analysis (principal components method, varimax rotation, Bartlett's test $p < .001$, KMO test = .85) a one-factor solution was suggested. The higher the score, the higher the level of self-regulation failure is indicated. The Cronbach's coefficient was $\alpha = .81$.

4. 4. Analysis

An explorative hierarchical cluster analysis, which is the usual method for group identification, was performed to divide the students into groups. Between-groups linkage was used as a cluster method and the squared Euclidean distance as a measure. This procedure was deemed appropriate with respect to our data set (cf. Yim & Ramdeen 2015). A five-cluster model dividing students according to self-regulated skills and social preference index (i.e., peer rejection) was chosen. Correlation between self-regulation behavior and peer rejection (the bigger the peer rejection, the lower the self-regulation) was found previously (Hrbackova & Balaban Cakirpaloglu, 2020);

therefore, these two variables were used in cluster analysis as cluster variables. Self-regulated skills and level of peer rejection appear to be the most relevant variables to divide peer-rejected students into meaningful groups. Models considering other variables and the use of different numbers of clusters were found to be not as meaningful and functional as the presented model. It was found that 21 students could not be assigned to any of the groups, although the conglomerate values of these individuals were so heterogeneous they could not be classed as a separate group. The statistical significance of intergroup differences was determined through an analysis of variance (Levene's test of the homogeneity of variances in all groups showed $p > .05$; Hochberg's test was used as a post-hoc test). IBM SPSS Statistics was used for the cluster analysis and other statistical procedures.

5. Results

The assumption that peer-rejected students are not a homogeneous unit in terms of self-regulatory mechanisms was confirmed. Five groups of peer-rejected students were identified through cluster analysis. These five groups differed in terms of self-regulation skills, the five strategies of emotional regulation (rumination, acceptance and positive reappraisal, positive refocusing, blame and suppression of emotional manifestations), and failure of self-regulation.

Table 1. Differences in self-regulatory mechanisms among groups of peer-rejected students

There are statistical differences in values among the groups; thus, this distribution can be reasonably expected in the whole population of lower secondary students in the Czech Republic. One finding of significant interest is the strength of the

effect of the groups, which is represented by r^2. The group as an independent variable explains 22 % of the variability of Self-regulation Skills; 43 % variability of Rumination; 37 % variability of Acceptance and Positive Reappraisal; 43 % variability of Positive Refocusing; 29 % variability of Blame; 20 % variability of Suppression of Emotional Manifestation; 10 % variability of Self-regulation Failure, and 32 % variability of Peer rejection. The individual groups were named according to the significant values pertaining to the given group. The nomenclature system does not represent an attempt to stigmatize groups of peer-excluded pupils but an effort to best capture the character of each group in comparison with other groups of peer-rejected pupils in the larger class group.

Group 1 was called *The Outsiders*, which consisted of 10.3 % of peer-rejected students and 1.3 % of the overall population of lower secondary students in the entire Czech Republic. As the sample is representative, it can be expected that approximately 5,000 students belong to this group. These students are the most peer-rejected (unpopular). They demonstrate the lowest level of self-regulation skills, and they fail in self-regulation most often. Students in this group use the strategy of emotional regulation the least often compared to other groups. Boys prevail in this group (n = 19), while the other groups are more gender-balanced.

Group 2 was labeled *The Misfits*, creating a population of 55.1 % of peer-rejected students, i.e., 6.7 % of the overall student population, which can be extrapolated to about 24,500 students in the entire Czech Republic. This is the most numerous group among peer-rejected students. Their rejection rate from classmates is the lowest of the other peer-rejected students, while their self-regulation skills are at the highest level of the five groups, i.e., comparable to the level of self-regulation skills of non-rejected students. There is a relatively higher rate of self-regulation failure in this

group. These students rank nearly the same as non-rejected students in the use of emotional regulation strategies.

Group 3 was named *The Overthinkers*. Students from this group represent 20.2 % of peer-rejected students, and 2.5 % of the entire population of lower secondary students; thus, the overall estimate for all schools is about 9,000 students. The level of peer rejection is the second lowest among peer-rejected students. The values of self-regulation skills and self-regulation failure are at the second lowest level. Students from this group use strategies of emotional regulation to the greatest extent, unlike other groups and non-rejected students.

Group 4 was called *The Poker Players*. It is the smallest group, consisting of 6.4 % of peer-rejected students, i.e., 0.8 % of all the lower secondary students, a number which can be extrapolated to approximately 3,000 students across the country. Peer rejection is rather higher in this group, with their self-regulation skills slightly below those of non-rejected students. The lowest level of self-regulation failure exists in this group, i.e., distinctly lower than non-rejected students. Differences among the types of emotional regulation strategies can be found in this group.

Group 5 was labeled *The Trapped Despite the Odds*. It is the second smallest group at 6.9 % of peer-rejected students. It represents 0.9 % of all lower secondary students and can thus be estimated at 3,500 students in the Czech Republic. These students are significantly rejected by their classmates, with the results indicating that they represent the second most rejected group of all. Their self-regulation skills are minutely lower than those of non-rejected students, and the second-lowest level of self-regulation failure was found for this group. These students generally use emotional regulation strategies to a greater extent.

Differences among groups according to socio-demographic characteristics such as gender (except for the gender imbalance in Group 1), age, region, and school were not found.

6. Discussion

Concerning self-regulation mechanisms, we found out that peer-rejected students are not a monolithic group. Each of the five groups of peer-rejected students were shown to possess its own set of qualities in terms of the level of peer rejection, self-regulation skills, strategies of emotional regulation, and self-regulation failure.

The first group was labeled *The Outsiders*, as it comprises very unpopular students who are rejected to the most significant degree by their classmates. Moreover, they lack self-regulation skills, i.e., self-regulated behavior focused on interpersonal cognitive problem-solving. These students have internalized their failure at self-regulation, i.e., the intrapersonal processes focused on behavioral regulation, emotional regulation, cognition regulation, volition, and attention regulation, all strategies of emotional regulation which this population does not employ to a significant degree. These students likely appear as the most vulnerable in the class, and they can become victims of bullying very quickly. They are seen as and behave as outsiders that manifest significant deviations not only from the non-rejected population but also as compared with other rejected students, from whom they represent an isolated group.

This group clearly shows a failure in using self-regulatory mechanisms, which would help these rejected students overcome their exclusion from the collective. It seems to be appropriate to focus not only on strengthening their self-regulation but also on their motivation for inclusion and prospects for future acceptance, as the effects of social acceptance and social exclusion on self-regulation are closely linked to motivation (DeWall et al., 2008). The social context in which peer interactions occur

also influences rejection. Peer relationships require reciprocal exchanges, which do not occur in a vacuum where only the rejected child's behavior matters. Understanding the social context is therefore essential to developing a complete model of peer rejection (Mikami, Lerner, & Lun, 2010).

Although *The Misfits* group includes peer-rejected students, they are not so different than the non-rejected students in terms of self-regulation. They have a standard level of self-regulation skills and similar usage of emotional regulation strategy. This is not uncommon, as numerous studies have shown that rejected participants do not report emotional states that differ significantly from the states of accepted or control participants (Baumeister et al., 2005). Only their level of self-regulation failure is higher than that of non-rejected students. Thus, in this group, self-regulation mechanisms are not so different from the non-rejected population of students, yet their classmates reject them. The reasons for this rejection must therefore lie elsewhere than in terms of self-regulation mechanisms. The most significant difference of *The Misfits* from other groups of peer-rejected students lies in their self-regulation skills, which are at the highest level of all the five categories. Self-regulation skills are commonly assumed to prevent peer rejection (Baumeister et al., 2005), but this is not the case with this group. It seems to be these students are aware of choices they might make to fit in (higher level of self-regulation skills), but sometimes they do not make these choices (higher level of self-regulation failure), which is why this group was marked as non-adaptable. The risk factor in this group is their perceived failure at self-regulation. In this group of rejected children, it seems appropriate to work with their attitude towards themselves or other classmates in terms of their perceived failure. Although their self-regulatory skills are comparable to their peer-accepted classmates, it would also be appropriate to focus on practicing self-regulatory skills in different situations so that these students can develop

self-regulatory skills for use in specific situations associated with interpersonal problem solving.

The use of all the strategies of emotional regulation to a greater degree is typical for *The Overthinkers*, for whom adaptive strategies prevail slightly over non-adaptive strategies. These students are able to regulate their own emotions in solving problems but do so instead through adaptive strategies (Acceptance and Positive Reappraisal – "I have to accept it." "Anyway, I cannot do anything, I must go on." and Positive Refocusing – "I want to acquiesce in a situation and cope with it."). This group was labeled The Overthinkers, as this name denotes a significantly higher degree of emotion regulation than other groups of peer-rejected pupils. However, this emotional regulation does not help them towards better self-regulation. A risk factor for this group of students is the ineffective use of emotion regulation strategies. With this group of peer-rejected pupils, it seems appropriate to focus on strengthening emotion regulation strategies and their effective use in various situations. Although some emotion control strategies are generally perceived as adaptive and others as maladaptive, efficacy depends on the context in which the emotion control strategy is used (Gross, 2019).

Students in *The Poker Players* group demonstrate the highest level of Suppression of Emotional Manifestation (resembling a poker player who masks his/her emotions), and their Positive Refocusing is very low. They use rather non-adaptive strategies of emotional regulation (Rumination – "I am still considering the situation." and Blame – "It is not my fault; it is someone else's."). The significant trait of this group is that members do not show failures in self-regulation, which may indicate a degree of discipline. The suppression of emotional manifestation by these students may also show a greater degree of secretiveness. It is possible that this group of students experiences a great discrepancy in what they experience within themselves (private self)

and what they manifest outwardly (public self) (Baumeister, 1986). A risk factor for this group of rejected pupils is primarily the suppression of their own emotions. In this group of rejected students, it seems appropriate to work with their attitude towards their classmates and, above all, to strengthen their ability to express emotions, or to develop and use particular emotion regulation strategies which would enable them to regulate their own emotions effectively.

Students that belong to *The Trapped Despite the Odds* group regulate their behavior (showing a relatively higher level of self-regulation skills). They do not lack self-regulation but use rather adaptive strategies of emotional regulation. These students use Rumination the least of all the groups, which should be an advantage (although with the apparent result that the strategy of Rumination is replaced by Blame). The self-regulation mechanisms of this group are functional, and it seems to be that they do everything well, yet they remain unpopular and are rejected by their classmates with no possible escape from this situation. Given that this group does not show significant problems with the use of self-regulatory mechanisms (compared to other groups of peer-rejected pupils), it seems appropriate to examine other factors that may directly affect the exclusion of the pupils from the class. It would be suitable to determine through a qualitative analysis their attitude both towards themselves and to the class collective as well as their motivation for inclusion in the class collective. In certain circumstances, an individual may become excluded from the collective simply by avoiding social contact (the so-called porcupine effect). Adapted as a strategy of protection, this avoidant behavior arises as a consequence of the perceived need for self-defense in response to the frequent repetition of the experience of social pain/rejection in interpersonal relationships (Frank, 2017).

To what degree students suffer from these states of rejection was not the subject of this study, although it may be acknowledged that at least some students are not distressed by rejection as much as we think they are. The strongest argument for resilience or indifference toward non-acceptance may be made for students in the group *The Trapped Despite the Odds*. This population generally uses Blame as a strategy of emotional regulation, not admitting their own shortcomings and avoiding responsibility. Although they are unpopular, this does not mean they avoid contact with others, which is typical behavior for students in *The Outsiders* category. The individuals in *The Outsiders* group have the lowest level of self-regulation skills (self-regulated behavior), indicating that they have low potential to succeed in the classroom (cf. Wei & Chen, 2009; Mikami, Lerner, & Lun, 2010). These pupils do not use strategies of emotional regulation very much, which is another hindrance to achieving an equal or compatible relationship with classmates.

The particular group the student was a member of was shown to significantly determine the variability of self-regulatory mechanisms (from 10 % to 43 % variability). This sheds great light on how members function within each of these categories. All students across the groups share one common trait – that of being peer-rejected – but the many differences in coping mechanisms among groups like these is a feature that many researchers have overlooked. Our study has determined that among the rejected students, there are those whose self-regulatory mechanisms function at the same level as those of non-rejected students or even at a higher level. Although self-regulation is understood as a way toward an individual's long-term success (Baumeister et al., 2005), it seems that self-regulatory mechanisms are not so strong as to affect social status in the classroom. The simple equation that a higher level of self-regulation leads to higher social status in the classroom does not hold true. As we see in this study, not every peer-

rejected student is simultaneously socially incompetent, a result that some models suggest (cf. Wei & Chen, 2009). Self-regulatory mechanisms are apparently useful to a greater degree to control individual reactions to rejection and coping with it (which is very important) rather than enacting real changes to affect social status. When students are rejected despite functioning self-regulatory mechanisms, stronger external influences must be present causing the peer rejection, e.g., deviance from group norms (conformity), social dominance factors, reputational bias, anvfd /or teacher influence on the classroom peer group (Mikami, Lerner, & Lun, 2010).

The finding of this study, which should be understood as an important implication for policy and practice, is that in terms of self-regulation, peer-rejected students cannot be considered a homogeneous group. In school practice, it is necessary to consider the individual context of each peer-rejected student and support interventions strengthening the attitude of these students towards themselves and their classmates. Such interventions would allow peer-rejected students to strengthen peer interaction and subsequently contribute to successful work with the whole class to reintegrate the student into the team. That also means that the teacher should approach each rejected pupil individually and respect not only the dynamics of the relationships in the classroom but should also consider the unique characteristics of each rejected pupil, their individual self-regulatory mechanisms and abilities and the social context in which they find themselves.

In further studies, we propose to focus on the extent to which the connection between peer interaction and self-regulatory mechanisms is influenced by one's own attitude towards oneself and others and the motivation to be included in the team. Our study shows that self-regulation mechanisms in peer-rejected pupils are not always

impaired, as has been found in some previous studies (Baumeister et al., 2005; DeWall, Beumister, & Vohs, 2008).

7. Conclusion

Peer rejection has been identified as a serious and widespread problem in schools all over the world. Nevertheless, peer-rejected students do not represent a homogeneous monolithic group. These individuals differ from each other in many ways. In this study, five groups of peer-rejected students were identified and described on the basis of a cluster analysis focused on self-regulatory mechanisms. Although we agree with the statement that self-regulation is a key ingredient that can facilitate individual and cultural success (Bauer & Baumeister, 2011), social context is another key component that must be considered. This topic requires further research, e.g., qualitative studies focused on revealing how self-regulation functions within and among groups of peer-rejected students and the general student population in the social context.

Ethical Statement

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

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Table 1. Differences in self-regulatory mechanisms among groups of peer-rejected students

Variables	Rejected students						Non-rejected students (n = 1406)
	Group 1 (n = 21)	Group 2 (n = 109)	Group 3 (n = 41)	Group 4 (n = 13)	Group 5 (n = 14)	p value for intergroup differences; r^2	
	Mean/SD	Mean/SD	Mean/SD	Mean/SD	Mean/SD		Mean/SD
Self-regulation Skills	1.81/2.4	7.06/2.73	4.76/3.92	6.31/3.12	6.43/4.22	< .001; .23	7.10/3.45
Rumination	2.00/.92	2.89/.91	4.16/.62	4.04/.79	1.93/.81	< .001; .43	3.09/1.04
Acceptance and Positive Reappraisal	2.03/.95	3.32/.82	4.19/.51	3.15/.88	3.89/.77	< .001; .37	3.38/.86
Positive Refocusing	1.92/.92	3.21/.87	4.15/.74	1.94/.56	4.10/.72	< .001; .43	3.43/1.01
Blame	2.24/.86	2.53/.88	3.45/.98	2.27/.73	4.18/.67	< .001; .29	2.74/.92
Suppression of Emotional Manifestation	2.14/1.01	3.14/1.03	3.88/1.44	4.04/.99	3.57/.94	< .001; .20	3.26/1.16
Self-regulation Failure	10.48/3.12	7.28/3.60	9.59/2.66	1.62/2.36	4.29/2.64	< .001; .10	6.32/3.62
Peer Rejection	-2.57/.95	-1.68/.61	-1.88/1.07	-1.99/1.23	-2.09/.86	< .001; .32	.30/.62