

Antipathetic relationships among adolescents: Exploring prevalence, gender differences, and stability in the United States and Chile

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Título: Relaciones de antipatía entre adolescentes. Explorando la prevalencia, diferencias de género y estabilidad en Estados Unidos y Chile.

Resumen: El presente artículo aborda las relaciones de antipatía entre los adolescentes en dos contextos culturales diferentes: Chile y Estados Unidos. Las relaciones de antipatía han demostrado ser algo común entre los adolescentes, sin embargo, poco se sabe sobre los patrones de antipatía en esta población, y sus correlatos de desarrollo. Los dos estudios presentados aquí analizan en dos muestras longitudinales de Chile y los EE.UU. la estabilidad y el cambio en las relaciones de antipatía, la prevalencia de los perfiles mixtos y antipatías entre personas del mismo sexo, y personas vinculadas a estos patrones relacionales en la adolescencia temprana. Los resultados muestran altas tasas de prevalencia de las relaciones de antipatía con igual participación de niños y niñas y similares tasas de parejas del mismo sexo y mixtas. Los adolescentes que participan en este tipo de interacciones mostraron un perfil de inadaptación caracterizado por ser agresivos y más bajo en el estatus social. Las antipatías fueron inestables como relaciones particulares (con el mismo compañero/a a lo largo del tiempo), a pesar de que los adolescentes que tenían entre sí relaciones de antipatía con los semejantes a la vez eran más propensos a mantener similares relaciones interpersonales en el tiempo. Se discuten las implicaciones para la investigación futura.

Palabras clave: Relaciones entre iguales; relaciones de antipatía, género, adolescentes.

Abstract: The present study approaches antipathetic relationships among adolescents in two distinct cultural contexts: Chile and United States. Antipathetic relationships have been shown to be common among adolescents; however, little is known about patterns of antipathy in this population, and its developmental correlates. The two studies presented here analyze in longitudinal Chilean and US samples stability and change in antipathetic relationships, prevalence of mixed- and same-gender antipathies, and individual profiles associated to these relational patterns in early adolescence. Results show high prevalence rates of antipathetic relationships with equal participation of boys and girls and similar rates of mixed and same-gender dyads. Adolescents who participate in this type of interactions showed a maladaptive profile characterized by being aggressive and lower on social status. Antipathies were unstable as particular relationships (with the same peer over time), even though adolescents who held mutually dislike relations with peers at time 1 were more likely to hold similar interpersonal relations over time per se. Implications for further research are discussed.

Key words: Peer relations; antipathetic relationships; gender; adolescents.

Introduction

Children and adolescents spend most of their time in schools among peers, and the significant role of these interactions for development has been well demonstrated (Rubin, Bukowski & Parker, 2006). Early adolescents establish intimate relations such as friendships and romantic relationships, form cliques and larger peer groups, but also establish negative relationships such as bully-victim dynamics and mutual antipathies. Research on peer relations has largely focused on positive interactions such as friendships (Bukowski & Sippola, 2005) and peer groups (Collins & Laursen, 2004). Regarding negative relationships, there is an already large and growing body of research focusing on bullying and victimization (for a review see Jimerson, Swearer, Espelage, 2010; Pellegrini, 1998) and sexual harassment (Stein, 1995; Duncan, 1999; Rodkin & Fisher, 2003); however, the topic of mutual antipathies has been understudied (Card, 2010), even though its relevance for understanding peer relations (Coie, Dodge & Coppotelli, 1982).

Abecassis (2003) argues that mutual antipathies constitute an important context for growth and development. Since an-

tipathies constitute part of children's day to day life, they may act as organizers of their experiences, and inform about a person's central attributes and definitions, such as his or her identity, beliefs, and thoughts. Mutual antipathies are based on mutual dislike, and constitute a subcategory of the broader term *enmity* (Hartup, 2003). Card (2010) argues for the use of the term antipathetic relationships, since it highlights the interpersonal nature of this type of social phenomenon.

Antipathetic relationships constitute a novel research topic, and consequently studies addressing it are scarce, and showing inconsistent results. Evidence is even scarcer in developing countries, and particularly in Latin America there are no studies to date addressing antipathetic relationships, even though some studies have addressed other peer processes such as friendships or bully-victim relationships finding overall results that are consistent with reports of American or European populations (Almeida, Lisboa & Caurcel, 2007; Berger, 2008; Del Rey & Ortega, 2008). The present study aims to broaden the understanding of these relationships by addressing two main research questions: First, on a more descriptive level, the prevalence of these relationships among Chilean and American adolescents, its stability, and its gender composition. Second, the association between having antipathetic relationships and certain socio-behavioral characteristics, featuring potentially maladaptive profiles.

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Antipathetic relationships constitute a new topic within the peer relations literature. However, a growing body of evidence is calling the attention of researchers to address this type of relationship as part of the day to day experience of adolescents over the world. In fact, a recent meta-analysis by Card (2010) summarizing the existing literature on mutual antipathies found that 35% of children have at least one antipathetic relationship. Seemingly, Güroglu, Haselager, van Lieshout and Scholte (2009) found that 28% of early adolescents and 27% of adolescents had at least one antipathetic relationship.

Despite the belief that having antipathetic relationships is associated with negative developmental outcomes, the evidence is inconclusive. Studies have shown that being involved in mutual antipathies is uncorrelated with aggressive behavior (Rodkin, Pearl, Farmer & VanAcker, 2003), prosocial behavior (Parker & Gamm, 2003; Pope, 2003), and popularity (Rodkin et al., 2003). However, Abecassis, Hartup, Haselager, Scholte and Van Lieshout (2002) found that antipathies are associated with antisocial behavior and withdrawal, particularly among same-sex relations. Seemingly, Erath, Pettit, Dodge and Bates (2009) found that involvement in antipathetic relationships during middle elementary years was associated with higher levels of aggression for boys in late elementary years, and that the number of these relationships increased this effect. Overall, Card's meta-analysis (2010) shows a pattern of associations with externalizing and internalizing problems, victimization, peer rejection, and negatively with prosocial behavior and positive peer regard. However, as argued by Hartup (2003), results are not conclusive and more research is needed.

The large proportion and variability of school-age individuals who are involved in antipathetic relationships might explain this inconsistency. Güroglu and colleagues (2009) found heterogeneity among adolescents involved in antipathetic relationships, identifying three types of individuals: Prosocial, antisocial and withdrawn, showing that the association between mutually dislike relationships and sociobehavioral characteristics cannot be easily established as normative.

Summarizing, adolescents involved in antipathetic relationships may be expected to display a negative profile characterized by aggression, low prosocial behavior and social status. However, these results may vary regarding several features. For instance, Hartup (2003) argues for the need of more research addressing the heterogeneity of this type of relationships, its dynamics, salience, and developmental course. In this study we focus on the gender composition of mutually dislike relationships and its stability, as potential factors explaining this variability.

Regarding gender, there is agreement in the literature about the important role that it plays in early adolescents' peer relationships. The gendered culture during this developmental phase (Adler & Adler, 1998; Maccoby, 1998) considers gender segregation as a signature of middle childhood social relationships (Dijkstra, Lindenberg & Veenstra, 2007;

Martin & Fabes, 2001). For instance, Underwood, Schockner and Hurley (2001) found that in an experimental setting, children who were teased by an opposite-sex peer showed more negative reactions and were less likely to want to befriend their provocateur than when teasing was by a same-sex peer. However, little evidence is available regarding gender and antipathetic relationships. Güroglu et al. (2009) found preadolescent boys to have more often mutual antipathies. Similar results among fourth graders were found by Rodkin et al. (2003), who also found same-gender antipathies among boys to be more prevalent than cross-gender interactions. Abecassis and colleagues (2002) found that cross-gender and same-gender antipathetic relationships were as common, and similar results were also reported by Witkow, Bellmore, Nishina, Juvonen and Graham (2005). The latter is also supported by Card's meta-analytical review (2010), concluding that gender differences are trivial. In sum, due to this inconsistency, specific hypotheses were not formulated and results are exploratory.

Above individual gender differences (i.e., boys or girls having mutual antipathies), the gender composition of antipathetic relationships may also play a role. Even though male-male aggression has shown to be more prevalent (Russell & Owens, 1999), bullying has shown to be more prevalent in boy-to-girl interactions (Rodkin & Berger, 2008). However, specific evidence for mutual antipathies is again inconclusive. For instance, having same-sex antipathies was uncorrelated with aggression for both boys and girls, as reported by Witkow et al. (2005) and Pope (2003). By contrast, Erath et al. (2009) found that being involved in mutual antipathies predicted later aggression only among boys. Rodkin et al. (2003) found that losing same-sex antipathetic peers was associated with increasing aggression for girls, but decreasing aggression for boys.

A third level regarding gender is the school composition (i.e., mix-gender, only boys, or only girls). No previous study has compared these settings, and a vast majority of studies have been developed in mix-gender settings. One of the studies reported in this work compares at a descriptive level these school contexts, but focuses on the mix-gender schools to further elaborate on previous research.

In sum, evidence is unclear; however, previous studies reporting gender differences do not establish large or consistent gender differences. We explore two different samples coming from different settings: United States and Chile. We expect to find similar findings to those presented in previous studies for the US sample. However, some considerations should be taken into account when addressing the Chilean sample: First, features of the Chilean educational settings (classmates remain together for 1st to 12th grade, and there are usually no transitions from elementary to middle to high school, showing high peer group stability and a fixed peer culture). Second, previous findings about friendships showing a higher prevalence of same-sex relationships within this population (Berger, Dijkstra & Lindenberg, 2010). Third, the age range of this population (5th and 6th graders) which

shows more cross-gender positive interactions by overcoming the fixed gendered culture of the pre- and early adolescent years. Considering this, antipathetic relationships might reinforce gendered stereotypes (males being aggressive and popular, girls being prosocial).

An important dynamic factor when assessing interpersonal relationships is stability. One rationale that underlies the commonly adopted assumption that antipathetic relationships are associated to maladjustment is that there is an individual and relational pattern, and thus it would be expected to find moderate to high stability within these interpersonal relationships. However, antipathetic relationships have been shown to have a short-term duration (Rodkin et al., 2003; Abecassis, 2003).

Evidence regarding stability is unfortunately scarce (Card, 2010). The few studies reporting on the stability of antipathetic relationships focus on two questions: first, the stability of a particular interpersonal relationship over time, and second, stability in terms of having antipathetic relationships over time per se (i.e., not necessarily with the same peer). Rodkin and colleagues (2003) reported that among fourth graders' antipathetic relationships identified in the fall, only 17% remained in the spring. Abecassis et al. (2002) reported involvement in antipathies to be unstable, with rates of 10% and 5% for boys and girls respectively to hold antipathies both in childhood and adolescence. Erath et al. (2009) found significant associations between having mutually dislike dyads in Kindergarten up to third grade (r s ranging from .21 to .29 in consecutive years). As argued by Rodkin et al. (2003), stability in antipathies becomes more visible when considering the maintenance of the involvement in some reciprocated dislike, even if not with the same peer.

In sum, the present study approaches antipathetic relationships featuring two different adolescent populations, from United States and Chile. Four hypotheses guide this study: First, prevalence rates of involvement in antipathetic relationships will be similar to those found by previous studies, showing a large percentage of adolescents having mutually dislike relationships. Second, we expect to find a more maladaptive profile among adolescents who display antipathetic relationships as compared to their classmates not involved in this type of relationships. Third, antipathetic relationships will be equally likely to be between same sex classmates than between cross-sex peers, and both boys and girls will be equally likely to hold antipathetic relationships. And fourth, we expect mutual antipathies to be unstable as particular interpersonal interactions; however, we expect adolescents who held mutual antipathetic relationships to be involved over time in this type of relationships, even though with different peers.

Since populations are not comparable due to their contexts, participants' age and grade, and some methodological features particular to the design of each study, they were not integrated and are presented as two different studies. However, conclusions and implications for theory and future research will be discussed integrating both studies.

Study 1

Study 1 included 647 fifth and sixth graders (323 boys, age range 10 -12) from four urban schools (two mix-gender, one only-boys and one only-girls) in metropolitan Santiago, Chile, who were part of a larger longitudinal study on peer relations. Active consent was gathered from all students and their parents.

Children were surveyed between June and August 2005 and reassessed during the same months after one year. Complete longitudinal data was gathered for 479 students (data was missing for children who left the schools between both assessments, or who were not present at one data collection). Attrition analyses showed that participants who left the study after the first assessment were rated by their peers as more aggressive and socially disliked (t s = 2.08 and 2.45, respectively, p s < 0.05). Surveys were completed through group administration during regular class hours (45 minutes per classroom). Children were assured that their answers would be kept confidential. Children were told they were not allowed to talk and that they could stop participating at any time. During the survey, trained administrators provided assistance to participants when needed, while one administrator read the instructions and questions aloud. Measures and procedures to protect the confidentiality and rights of all participants were approved by the Institutional Review Board of the local university and by the principals of both schools involved in this research.

Measures

Students were asked to nominate their classmates on a variety of social and personality characteristics, and who would they least like to spend time with. Participants were told that they could nominate same- or cross-gender peers and that peers could be nominated for more than one item.

Antipathetic relationships. Participants could nominate up to six choices of their classmates with whom they would like the least to spend time with. Participants were considered to be involved in a mutual antipathetic relationships when they cross-nominate each other with a particular classmate.

Peer nominations. Common peer nominations procedures (Coie et al., 1982; Rodkin & Berger, 2008; LaFontana & Cillessen, 2002) were used to assess a variety of sociobehavioral characteristics of adolescents. Participants were asked to rate their classmates on several items in which they had to nominate up to six of their classmates who best fit each descriptor. After standardizing within classroom, factor analyses (MLE, varimax rotation) were performed to identify personal characteristics composites. *Aggression* ($\alpha = 0.84$) included four items: *starts fights*, *makes fun of others*, *gets into troubles*, and *ignores others*. (Even though further analyses did not show a two factor structure within this composite distinguishing physical and relational aggression, in this study we present results for the overall aggression composite and both aggression categories). *Prosocial* ($\alpha = 0.80$) included items *is kind*

to others, cooperates, others want to be like him, and other listen to him/her.

Perceived Popularity. Participants were allowed up to six choices for their nominations of classmates they considered as popular and not popular. Following LaFontana and Cillessen's (2002) procedure, popularity was calculated by subtracting peer nominations as not popular from peer nominations as popular.

Social Preference. For social preference, participants were allowed to nominate six choices for their nominations of classmates with whom they liked most and liked least to spend time with. Social preference scores were constructed by subtracting a participant's liked least from his or her liked most score (Coie et al., 1982).

Results

95 mutual antipathies were found. 53 were observed within mix-gender schools (among these, 22 were mix-gender and 31 same-gender), 28 within only-boys schools and 14 within only-girls schools. Overall, 130 participants (26.3%, equally distributed by gender) who were present at the first assessment held at least one mutual antipathy (range 1-5).

Adolescents who engaged in mutual antipathies with their peers were compared to adolescents who did not establish mutually disliking relationships. As shown in Table 1 participants with mutual antipathies were rated by their peers as more aggressive (both relationally and physically, $t_s = 7.36$ and 5.26 , $p_s < .01$), and lower on social status features (less socially preferred and marginally less popular, $t_s = -8.37$ and -1.72 , $p_s < .01$ and $< .09$, respectively).

Table 1: Sociobehavioral peer reported characteristics of participants with and without antipathetic relationships (Study 1, Chilean adolescents).

	With antipathetic relationships		Without antipathetic relationships		t
	X	SD	X	SD	
Aggression	.51	1.17	-.15	.89	6.85**
Relational aggression	.93	1.91	-.27	1.55	7.36**
Physical aggression	.74	2.26	-.22	1.67	5.26**
Prosocial	.02	.87	-.01	1.03	< 1
Social preference	-.61	1.01	.18	.93	-8.37**
Popularity	-.13	1.26	.04	.91	-1.72 †

** $p < .01$, * $p < .05$, † $p < .09$

Participants who engaged in mutual antipathies were compared across schools regarding their gender composition (mix-gender, only-boys and only-girls schools). Students with mutual antipathies were rated as prosocial within mix-gender settings, but non-prosocial within only-boys schools (only-girls settings reported average scores; $F=15.45$, $p < 0.01$). In order to assess the association between the number of antipathetic relationships and socio-behavioral characteristics, simple regression analyses predicting the number of this type of relationships were performed. Step 1 controlled for gender and grade, and Step 2 included all peer reported characteristics. No significant effect was observed.

Boys and girls who held mutual antipathies were compared regarding their characteristics as reported by peers. Table 2 shows that boys were rated by their peers as more physically aggressive (although no differences were found for relational aggression) and less prosocial than girls ($t_s = 3.15$ and -3.12 , $p_s < .01$).

Table 2: Sociobehavioral peer reported characteristics of boys and girls with antipathetic relationships, within mix-gender settings (Study 1, Chilean adolescents).

	Boys (n=65)		Girls (n=65)		t
	X	SD	X	SD	
Peer reports					
Aggression	.70	1.26	.31	1.04	1.93 †
Relational aggression	.97	2.06	.90	1.77	< 1
Physical aggression	.34	2.35	.13	1.99	3.15**
Prosocial	-.21	.74	.26	.94	-3.12**
Social preference	-.70	1.00	-.52	1.02	-1.03
Popularity	-.11	1.27	-.16	1.25	< 1

** $p < .01$, * $p < .05$, † $p < .06$

However, this pattern varied when considering gender differences only within mix-gender schools. In these settings boys were rated as more relationally and physically aggressive than girls ($t_s = 2.07$ and 6.35 , $p_s < .05$); however, both boys and girls showed high rates of relational aggression ($M_s = 1.64$ and $.64$, z-scores) as compared to the whole population. Seemingly, boys were rated by their peers as popular as compared to the unpopularity reported for girls ($t = 2.19$, $p < 0.05$). When comparing boys with and without antipathetic relationships within only-boys school settings, results showed that boys with antipathies were perceived as highly aggressive (both relational and physical, $t_s = 5.02$ and 3.33 , $p_s < 0.01$, respectively), not popular ($t = -3.43$, $p < 0.01$) and socially rejected ($t = -6.39$, $p < 0.01$) compared to their counterparts without mutually dislike relationships. Within only-girls school settings, girls with antipathetic relationships were perceived by their peers as highly aggressive (both relational and physical, $t_s = 3.98$ and 3.80 , $p_s < 0.01$, respectively) and socially disliked ($t = -3.17$, $p < 0.01$). In order to further explore these differences, the number of antipathetic relationships was also considered. Figure 1 presents peer reported aggression of boys and girls regarding their number of mutual antipathies and school gender structure.

When focusing particularly in mix-gender antipathetic relationships, simple comparisons between boys and girls within mutually dislike dyads showed that males were rated by their peers as more aggressive (average boy-girl mean difference 1.57), more popular (0.74), and less socially preferred (-0.19).

Next, stability was assessed. Among the 130 participants who held antipathetic relationships at time 1, only 51 remained as having at least one mutual antipathy. However, 47 participants changed the peer with whom they held that particular antipathy. In other words, 39.2% of participants keep the status of having mutual antipathies, but only two of the initial 95 antipathies remained after a one-year period.

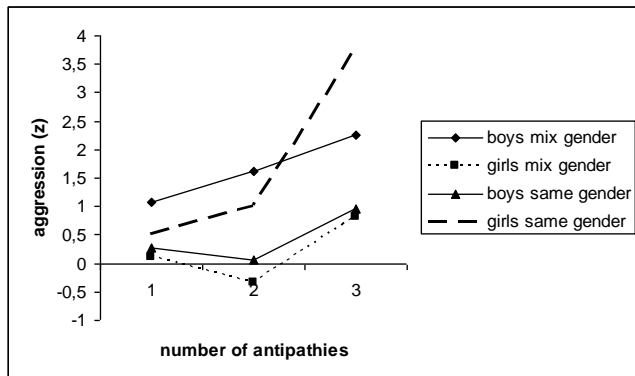


Figure 1: Aggression scores (peer reported) for boys and girls regarding their number of antipathetic relationships and school gender composition.

When considering the gender composition of schools, within mix-gender settings a third (33.3%) of participants who held antipathies at time 1 remained as such at time 2 (no gender differences were found, $\chi^2 < 1$). In only-boys settings, half of the students (50%) kept having mutual antipathies, and within only-girls settings, 39.1% hold that type of relationships. Parametric testing showed that this distribution was attributed to chance ($\chi^2 = 2.86, p = 0.24$).

Study 2

Study 2 features 729 fourth and fifth graders who attended one of seven elementary schools across three Midwestern school districts located in small to moderate size urban areas. Participants were part of a larger longitudinal study on peer relations, bullying and victimization, featuring a longitudinal design with three assessments in the spring of the first school year and fall and spring of the second school year; the present study presents results from the last two waves (fall 2005 and spring 2006). The time between the midpoints of both assessments was approximately 7 months.

The participation rate was 81.4% in wave 2, and 83.6% in wave 3. The total sample ($N = 1002$, 49.8% female) consisted of 509 children followed from 3rd to 4th grade and 493 children followed from 4th to 5th grade. The ethnic distribution was 50.3% African American, 34.1% European American, 6.4% Asian, 4.9% Hispanic, and 4.3% of other ethnic classifications.

Participation required parental/guardian consent and individual assent at each wave. For each classroom, participants were surveyed in two 30-minute sessions on consecutive days. A member of the research team read each survey item aloud, while at least two others monitored students' progress and answered student questions. The order of administration of measures was randomized for each classroom. Measures and procedures to protect the confidentiality and rights of all participants were approved by the Institutional Review Board of the local university.

Measures

Measures used in study 2 for identifying antipathetic relationships and peer nominations on aggression, prosocial behavior, popularity and social preference were similar to those already presented in study 1. However, instead of having a limited number of choices for peers that participants could nominate for each item, study 2 featured unlimited peer nominations, where participants were given a set of rosters with all classmates' names, and were asked to mark all names that best fit each description (Cillessen & Mayeux, 2004). Individual scores for each characteristic were calculated as the quotient of the number of nominations received over the potential number of nominations (all classmates - 1).

Peer nominated aggression considered three items (*starts fights, makes fun of others, and says mean things to others*). Prosocial behavior included two items (*is nice to others, and cooperates*). Popularity was assessed by subtracting the peer nominated score on being not popular from the nominated score on being popular. Seemingly, Social Preference was calculated by subtracting the least liked nomination score from the most liked nomination score.

Antipathetic relationships. Participants could nominate all classmates with whom they would like the least to spend time or play with. Participants were considered to be involved in a mutual antipathetic relationships when they cross-nominate each other with a particular classmate.

Bullying and victimization. The Who Bullies Whom questionnaire (Rodkin & Berger, 2008) approaches bullying and victimization as a dyadic phenomenon, and includes two questions; first, it asks children "Are there some kids in your class who really like to bully other kids around? Please write the name of a kid that bullies other kids around." Children then write the first name and last initial of the child who first comes to mind as a bully. Second, children are asked: "which kids does this bully like to pick on the most?" Six lines are provided for children to write the first name and last initial of peers who fit the description of being picked on by the particular bully they nominated. After naming a bully and children whom the bully most picks on, children can then nominate a second and third bully along with children whom those bullies are most likely to harass. For the present study, bullying and victimization scores were derived following the same peer nomination procedures already described.

Results

Among American early adolescents, 686 antipathetic relationships were identified, 222 (32.4%) of which were between two same-sex peers (129 between two boys and 93 between two girls), and 464 (67.6%) between a boy and a girl. Overall, 448 (61.4%) adolescents (199 girls and 249 boys) held antipathetic relationships (range 1-12).

Participants who engaged in mutual antipathies with one or more of their classmates were compared to their counterparts who did not establish mutually disliking relation-

ships. As shown in Table 3, adolescents who were part of antipathetic relationships were more likely to be victimized by their peers ($t = 2.85, p < 0.01$). No other significant differences were found for any of the peer reported characteristics. Considering the ample range of the number of antipathetic relationships held by participants, hierarchical regression analyses were performed to evaluate whether peer reported characteristics predicted involvement in more than one mutually disliking relationships. In step 1 gender and grade were controlled for. In step 2, all other peer reported characteristics were included (social preference was excluded from this analyses due to its overlap with the definition of antipathetic relationships). As reported in Table 4, younger participants ($\beta = -.13, t = -2.78, p < 0.01$), and adolescents who were less prosocial ($\beta = -.17, t = -2.81, p < 0.01$) and less popular ($\beta = -.11, t = -2.06, p < 0.05$) were more likely to have more antipathetic relationships.

Table 3: Peer reported sociobehavioral characteristics of participants with and without antipathetic relationships (Study 2, US adolescents).

	With antipathetic relationships		Without antipathetic relationships		t
	X	SD	X	SD	
Peer reports					
Aggression	.02	.97	-.03	1.05	< 1
Prosocial	.01	.98	-.02	1.04	< 1
Social preference	-.02	.94	.03	1.08	< 1
Popularity	.01	.95	-.01	1.07	< 1
Bullying	-.01	.99	.01	1.02	< 1
Victimization	.08	1.01	-.13	.97	2.85**

** $p < .01$, * $p < .05$

Table 4: Factors predicting number of mutual antipathies (Study 2, US adolescents)

	B	SE B	β	t
Step 1 (Constant)	5.62	.92		6.11**
Gender	-.01	.21	-.00	< 1
Grade	-.56	.20	-.13	-2.78**
Step 2 Prosocial	-.38	.14	-.17	-2.81**
Popularity	-.25	.12	-.11	-2.06*
Aggression	.05	.17	.02	< 1
Bullying	.24	.14	.11	1.64
Victimization	-.03	.10	-.02	< 1

** $p < .01$, * $p < .05$

Next, boys and girls who held antipathetic relationships were compared. As shown in Table 5, girls displayed a more adaptive social profile compared to boys, characterized by their peers as higher on popularity ($t = 3.41, p < 0.01$), social preference ($t = 2.52, p < 0.05$) and prosocial behaviour ($t = 5.43, p < 0.01$), and less aggressive ($t = -3.09, p < 0.01$). Even though girls participating in antipathetic relationships were less likely to be considered a bully by their peers, they were also more likely to be victimized than their male counterparts ($t = -2.91, p < 0.01$, and $-1.79, p = 0.74$, respectively).

Table 5: Peer reported sociobehavioral characteristics of boys and girls with antipathetic relationships (Study 2, US adolescents).

	Girls (n=247)		Boys (n=198)		t
	X	SD	X	SD	
Popularity	.14	.94	-.16	.94	3.41**
Social Preference	.08	.89	-.15	.99	2.52*
Aggression	-.11	.86	.17	1.07	-3.09**
Prosocial	.23	.99	-.26	.89	5.43**
Bullying	-.13	.78	.14	1.18	-2.91**
Victimization	.16	1.02	-.01	1.00	1.79†
Number of antipathetic relations	2.91	1.93	3.28	2.37	-1.78†

** $p < .01$, * $p < .05$, † $p < .08$

Finally, stability of antipathetic relationships was assessed. Among adolescents who held mutually disliking relationships at time 1, 71.8% participated in at least one antipathetic relationship at time 2 ($\chi^2 = 68.46, p < 0.01$). However, from the initial 448 adolescents who held antipathies, 180 (40.2%) participants continued holding an antipathetic relationship with at least one same peer over time. From the initial 686 antipathetic relationships identified at time, only 143 (20.8%) remained as such at time 2.

Discussion

The present study explored antipathetic relationships among adolescents in two different contexts: Chile and the United States. Overall results highlight the large amount of adolescents who are involved in this type of relationships during their late elementary and middle school years, and thus stress the need for gaining a better understanding of these interactions and their implications for child and adolescent development.

Even though both studies present significant differences in their main findings, there is agreement in considering antipathetic relationships as normative for adolescent peer relations: 26.3% of Chilean 5th and 6th graders and more than 60% of 4th and 5th graders in the US held mutual antipathies. The difference between the two samples can be attributed in part to the methodological device: The restricted number of nominations used in the Chilean study (range 1 to 5) decreases the likelihood of identifying antipathies, whereas the unlimited nominations in the US study (range 1 to 12) implies that any disliking relationship can be considered antipathetic. There is no consensus among researchers on which procedure is best suited for these purposes (Hymel, Vaillancourt, McDougall & Renshaw, 2002; Poulin & Dishion, 2008). By one hand, limited nominations may underestimate the amount of antipathies; by the other, being able to nominate all classmates may inflate results by identifying any sort of dislike as an antipathy. Comparing both samples sheds light on this discussion, but does not give conclusive answers.

The second hypothesis of this study referred to a maladaptive profile among adolescents who participated in antipathetic relationships. There are several perspectives for analysing this hypothesis. Results showed that among Chilean adolescents, being part of mutually dislike relationships was associated with being aggressive, less popular and socially preferred (there must be note that social preference is constructed also with like least nominations, and thus it is confounded with having antipathies).

Among American adolescents, having antipathetic peer relations was associated to being victimized (see also Card & Hodges, 2007). At first sight, it seems that being involved in this type of peer relations does not imply the same in both contexts. Even though contextual factors should be considered (for instance, the cultural salience and sensitivity to peer dislike and rejection), the methodological considerations raised before might also play a role. The binary categorization of having/not having antipathetic relationships stresses the limitations mentioned above regarding prevalence. Therefore, we performed follow-up analyses considering the number of mutual antipathies in order to achieve a clearer profile of adolescents who hold antipathetic relations. This was particularly adequate for the US sample, considering the unlimited nominations procedure used. As expected, having more antipathetic relations was associated with being less prosocial and less popular.

In other words, the studies presented here confirm that having antipathetic relationships is associated with a more maladaptive profile; however, this should be qualified by the number of antipathies, and future research should also include other factors that may contribute to identify a specific profile for mutual antipathies (for instance, how acceptance and rejection are defined; see Bukowski, Sippola, Hoza, Newcomb, 2000).

Next, gender was considered both as an individual and as a dyadic factor. Boys and girls were equally likely to be involved in antipathetic relationships in both contexts. When comparing socio-behavioral characteristic of boys and girls who had antipathies, traditional gender differences emerged in both populations: boys being more aggressive, and girls being more prosocial. However, in the US population girls were also considered more popular and socially preferred, even though they were more likely to be victimized (Rodkin & Berger, 2008). The association of being victimized and being part of socially visible dynamics for girls has been also reported by Berger and Rodkin (2009), and highlights how this interactions are intertwined in the peer culture.

Even though exploratory, the inclusion of different gendered school settings in the Chilean sample (mix-gender, only boys and only girls) allows showing differential implications of being part of antipathetic relationships for boys and girls in different settings, and speaks to the notion of trade-offs (Rose & Rudolph, 2006). In fact, results suggest that girls who have antipathetic relationships are more adaptive (i.e., less aggressive) in mix-gender settings. Boys with mutually disliking peers are perceived as more popular in mix-gender settings, whereas in only-boys settings having antipathetic relationships is associated with maladjustment. These results open a new research line that should be further explored from an ecological perspective.

Regarding the gender composition of antipathetic relationships, mix-gender dyads were equally or even more likely to exist than same-gender dyads. This is not surprising considering previous studies (Card, 2010), and highlights the need for addressing peer relations from a dyadic perspective.

Finally, the last hypothesis of this study addressed antipathetic relationships' stability. Even though with significant differences between both studies (should be remembered that the time period between both assessments was one year for the Chilean study and 7 months for the US study), the same pattern

was observed for both populations: Adolescents who held antipathies were more likely to hold antipathies over time (39% and 72% of the Chilean and US sample, respectively). However, specific antipathetic dyads were less likely to remain over time (only 2% for the Chilean sample and 21% for the US sample). In other words, antipathetic relationships are not likely to last over time, but participants of these relationships keep establishing mutually dislike relations over time. It might be that adolescents who participate in this type of interactions display a particular profile that reinforces their involvement in these interactions. Moreover, these results highlight again the need for integrating both individual and dyadic approaches to assess antipathies and their associations with child and adolescent development.

The studies presented here have some limitations that should be considered. First, it has been already discussed that both studies are non-comparable. Methodological procedures (peer nominations) and design features (between assessments intervals) do not allow integrating populations, and might confound the interpretation of results. However, at a conceptual level, it is questionable whether both studies are assessing the same construct. Caution should be taken in future cross-national studies to evaluate this. Considering the dynamic nature of peer relations, another limitation refers to the need for more assessment points, to better capture the changing nature of antipathetic (it has already been shown their short-term duration), but also to be able to establish developmental trajectories associated to this type of relationships.

From a methodological perspective, advanced analytical devices should be integrated to the study of peer antipathetic relationships. This constitutes also a challenge for the authors in terms of further explore this topic following the research lines that this study opens. First, to integrate the study of peer antipathies with other peer relationships, such as friendships, bully-victim relations, cliques, and larger peer groups. Second, to assess developmental profiles of adolescents involved in antipathetic relationships, and further explore the impact that this involvement may have for social and emotional development. Third, explore underlying processes that might be involved in the formation and dissolution of this type of relationships. For instance, antipathetic relationships might be based on dissimilarity and the consequent rejection of others who are different (Güroglu et al., 2009), or they might also respond to competitive interactions like a symmetric escalation to generate dissimilarity (Erath et al., 2009).

Considering the novelty of antipathetic relationships as a research topic, this study contributes to broaden its understanding. However, it opens several questions for future research. Along with showing that antipathies are part of the day to day experience of an important percentage of school-age boys and girls, it highlights its association with certain maladaptive characteristics and relational processes that should call researchers and educators' attention. Moreover, exploring these social relations in multiple and different cultural settings allows better understanding of how adolescents relate to each other, and may be informative for planning both individual and school-based interventions for fostering healthier development at the individual level, but also fostering healthier peer and school communities.

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