The Influence of the Group Context on the Associations Between Social Behaviours and

Popularity Trajectories in Pre-Adolescents

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ABSTRACT

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The objectives of this study were to: a) examine group influences on the associations between popularity and individual behavioural characteristics and b) to assess the trajectory of popularity during the first six months of school. It was expected that the group context would moderate the individual behavioural characteristics associated with popularity. Pre-adolescents ($N = 342$) in grades five and six ($M_{age} = 11.5$) from four schools across Montreal, Quebec completed self-report and peer-nomination items to assess nine behavioural characteristics: care, proactive help, reactive help, justice, relational aggression, physical aggression, collectivism, individualism, and popularity. Popularity was assessed across three time points separated by 8-week intervals from the month of September. A three-level hierarchical linear model was used to examine the behavioural characteristics associated with popularity at the level of the individual and group. The sole predictor at Level 1 was an index of time. The eight measures of individual behavioural characteristics were included as Level 2 predictors. Group means of the behavioural characteristics and a measure of SES and gender were added as Level 3 predictors. Both the intercept and slope were associated with individual characteristics (Level 2) and features of the group context (Level 3). Features of the group context moderated effects of individual characteristics on the intercept and slope. The use of a three-level hierarchical linear model highlights popularity amongst pre-adolescents as a social construct.

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To my family: Thank you for reminding me that the possibilities are endless when you are doing what you love.

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The Influence of the Group Context on the Associations Between Social Behaviours and Popularity Trajectories in Pre-Adolescents

Popularity is a form of social status (Bukowski, Motzoi, & Meyer, 2009; Cillessen & Mayeux, 2004; Rubin, Bukowski & Bowker, 2015). It refers to an individual's social prestige, social power, and/or social visibility within their peer group (Cillessen, Schwartz, & Mayeux, 2011; Cillessen & van den Berg, 2012; Rose, Glick, & Smith, 2011). Being popular can be a priority for some adolescents (LaFontana & Cillessen, 2010). It can play a significant role in adolescent peer groups as it allows specific individuals to determine and enforce social norms, create a social system, and develop acceptable social identities (Brown, 2011). More so than others, popular children can be the most influential individuals in their peer groups (Adler, Kless, & Adler, 1992; Cillessen & Mayeux, 2004).

Popularity can be a source of privilege. Specifically, an adolescent's level of popularity can influence the peers that make up their social network and their own self-perceptions (i.e., self-esteem; Adler, Kless, Adler, 1992). As such, the actions of a popular child are more likely to be interpreted positively compared to the actions of an unpopular child (Hymel, Wagner, & Butler, 1989). Conversely, a less popular peer engaging in the same behaviour as a popular peer (i.e., antisocial behaviour) may experience peer-rejection as a result (Hymel, Wagner, & Butler, 1989). Peer rejection is often associated with negative developmental consequences such as emotional maladjustment, poor mental health, and victimization from peers (Zimmer-Gembeck, 2016). As such, popularity may offer a protective quality from the negative social consequences that could be experienced by other non-popular peers.

In the present study, associations between social behaviours (i.e., antisocial and prosocial) and popularity were assessed within the social context of the peer group. The conceptual point of departure for this study is the claim that behaviours associated with popularity not only adhere to values endorsed by a particular context but are also influenced by the social needs of the context (Bukowski, 2011). This study examined the variations associated in group-level peer behaviors, individual characteristics, and popularity in a pre-adolescent sample. This was done through analyzing popularity from a multi-level perspective which enabled us to examine the developmental trajectory of popularity and to assess the contextual behaviour variations in the associations between forms of individual social behaviour and popularity.

Theory of Popularity

An extension of Coie's (1990) model of peer rejection was developed to establish a working theory of popularity. In particular, Cillessen (2011) posited that there are four factors that play a role in the procurement of popularity and four factors that play a role in the maintenance of popularity. The acquisition of popularity status is based on abilities to attract social attention and hold power, motivation to achieve status, utilizing behaviour skills associated with increasing visibility, and psychobiological factors (Cillessen, 2011). To obtain visibility and prestige within a peer group, an adolescent should have the ability to gain the attention of the members of their group (Cillessen, 2011). For example, popular adolescents are known to use aggressive behaviours as a way to procure their status within the peer group (Rose, Swenson, & Waller, 2004; Hawley, 2003; Pellegrini, 2008). Furthermore, using aggression successfully allows popular adolescents to defend their resources and interpersonal achievements (Cillessen & Mayeux, 2004). To continue, the adolescents should possess the motivation to obtain popularity (Cillessen, 2011) and this is more easily done with agentic goals (i.e., increasing status) than communal goals (i.e., increasing group cohesion; Ojanen & Nostrand, 2014). Utilizing the appropriate behavioural skills allows for task specific behaviours that successfully increase visibility within the peer group (Cillessen, 2011). Finally, biological factors, such as stress resistance, are hypothesized to be necessary in increasing visibility and prestige within a peer group (Cillessen, 2011).

Continuing with Cillessen's (2011) theory of popularity, four factors maintain the status acquired by an adolescent: resource-holding power, self-awareness, social-cognitive skills, and flexible adjustment to groups (Cillessen, 2011). Specifically, popular adolescents require the ability to defend their status against others. Moreover, adolescents that perceived themselves to be popular were more likely to engage in behaviours that were associated with popularity (Mayeux & Cillessen, 2008; Cillessen, 2011). Furthermore, Cillessen (2011) hypothesized that maintaining status within a peer group requires superior social-cognitive skills. Being able to understand the needs and reactions of others is hypothesized to play an important role in maintaining status within a peer group (Hawley, 2003; Mayeux & Kraft, 2018). Accordingly, popularity is typically associated with high levels of social competence and social skills (Rubin, Bukowski, Parker, 1998). Finally, being flexible to the needs of others allows for better adherence to the norms and goals of a peer group that may vary across time, context, and

development (Cillessen, 2011). Having a greater social awareness of the context allows the child to evaluate the situation and utilize the strategy that would most likely increase visibility and status within the peer group (Hawley, 2003; Mayeux & Kraft, 2018) which is known to vary by context (Bukowski, 2011; Cillessen, 2011).

Studying Popularity

Although popularity and acceptance are related, they are distinct constructs (Parkurst & Hopmeyer, 1998). Acceptance is a measure of how well-liked a child is within the peer group. It is measured directly with sociometric techniques. Conversely, popularity is a perceptual measure. It is an index of how a child is perceived by peers (Parkhurst & Hopmeyer, 1998; Bukowski, 2011). LaFontana & Cillessen (1999) distinguished that while positive behavioural characteristics were associated with likeability and acceptance, both positive and negative characteristics were associated with being popular. Popularity is measured through peer assessment techniques (Bukowski, Cillessen, & Velasquez, 2012) in which children are asked to indicate which of their peers are popular (Bukowski, 2011).

Children that are well-liked are described as being prosocial, athletic, and typically maintain a higher school achievement than less-liked peers (Newcomb, Bukowski & Pattee, 1993; McDonald & Asher, 2018). While a popular child may also possess these positive traits, they can also be described as dominant, arrogant, and physically and relationally aggressive (LaFontan & Cillessen, 2002). Yet, a popular child is not always a well-liked child and a well-liked child is not always popular (Cillessen & Mayeux, 2004; LaFontana & Cillessen, 1998). Using both prosocial and aggressive tendencies together is a productive and efficient strategy that popular individuals use to maintain their status (Cillessen & Mayeux, 2004) but may not always translate to being accepted by their peers (LaFontana & Cillessen, 1998).

Individual Differences Predicting Popularity

Popularity can be an antecedent of aggression (Cillessen & Mayeux, 2004). That is, physically and relationally aggressive behaviours at one time can be predicted by popularity at a prior time after the initial values of aggression have been accounted for (Cillessen & Mayeux 2004; LaFontana & Cillessen, 2002; Parkhurst & Hopemeyer, 1998; Rose, Glick, & Smith, 2011; Rose, Swenson, & Waller, 2004). Physical aggression refers to behaviours that physically harm others (i.e., hitting and fighting; Dodge, 1991) whereas relational aggression refers to behaviours that include social exclusion, gossip, and not providing support to peers (Dodge, 1991). For

popular children, aggressive behaviours may represent a strategic method for adolescents to maintain, display, or procure their status within the peer group (Rose, Swenson, & Waller, 2004). Within the context of popularity, aggressive behaviours serve as methods to achieve interpersonal goals such as retaliation, provocation, or attempts to increase social status within a peer group (Rose, Glick, & Smith, 2011; Pellegrini, Roseth, Van Ryzin, Solberg, 2011; Rodkin, Farmer, Pearl, & Van Acker, 2000). In particular, aggression increases visibility within the peer group even though this behaviour has a negative effect on acceptance (Pellegrini, Roseth, Van Ryzin, Solberg, 2011). It is claimed that popular children engage in aggressive behaviours in an attempt to reduce competition for resources (e.g., status; Hawley, 2003). Similarly, these aggressive behaviours successfully allow the adolescents to defend the resources they acquire (Cillessen & Mayeux, 2004). The evidence suggests that the use of aggressive and affiliative strategies by adolescents predict dominance over social resources and status within a peer group (Pellegrini, Roseth, Van Ryzin, Solberg, 2011). Consequently, aggressive behaviours play a more dominant role at increasing visibility within a peer group over and above the concern of being accepted by the peer group with regards to popularity (Pellegrini, Roseth, Van Ryzin, Solberg, 2011).

While aggression is one of the most studied behavioural correlates of popularity (Lu, Li, Li, Jin, & French, 2017), evidence suggests that prosocial behaviours are also related to peer status amongst adolescents (de Bruyn & Cillessen, 2006; Cillessen, & Mayeux, 2004; Lu, et al., 2017; Hawley, 2003; Nostrand, & Ojanen, 2018; Parkhurst & Hopmeyer, 1998). Consequently, the association between popularity and prosocial behaviours is argued to be underestimated (Aikins & Litwack, 2011). Prosocial actions are voluntary behaviours conducted with the intention to benefit others (Eisenberg & Fabes, 1998). Prosocial adolescents are described as being social, emotionally adjusted, empathetic and compassionate to the needs of others, and experience regret at negative events (Aikins & Litwack, 2011; Eisenberg & Fabes, 1998). In our study, we examine four types of prosocial behaviours. First is reactive help which is defined as an action done in response to a request for help (Nostrand & Ojanen, 2018). Second, we examine the effect of proactive help which is defined as voluntarily responding to an individual in need (Eisenberg & Fabes, 1998). Thirdly, we assess the effects of care which was defined by a pre-adolescent's willingness to provide help to members of their peer group to ensure their well-

being. Lastly, we examine justice which was defined as an individual's preoccupation to ensure that others are treated fairly.

Unlike aggressive behaviours, adolescents who engage in prosocial behaviours are both more popular and well-accepted within their peer group relative to popular children that do not engage in prosocial behaviours (de Bruyn & Cillessen, 2006; Cillessen & Mayeux, 2004, Parkhurst & Hopmeyer, 1998, Rose, Swenson, & Waller, 2004). Like aggression, prosocial behaviours are employed by popular children to help achieve their interpersonal goals (Cillessen & Mayeux, 2004, Parkhurst & Hopmeyer, 1998; Rose, Swenson & Waller, 2004; Nostrand & Ojanen, 2018). Research is divided upon the motivation underlying prosocial behaviour (Nostrand & Okanen, 2018). The evidence suggests that a prosocial behaviour can be conducted as an act of selfless compassion with no intention of receiving anything in return, a method to reduce an individual's own stress, or as a method of achieving interpersonal goals such as social status within a peer group (Nostrand & Okanen, 2018).

Developmental Trajectory of Popularity

Although popularity is known to be moderately stable over time (Cillessen & Borch, 2006) the factors that account for its trajectory have not been identified. Extant research dedicated to understanding the shape of the developmental trajectory of popularity in youth is limited (Cillessen & Borch, 2006). Examining the developmental trajectories provides the benefit of understanding the effect of the various predictors on popularity and understanding the early developmental variations of popularity (Cillessen & Borch, 2006).

The research posits that for adolescents, achieving and maintaining popularity becomes increasingly important (LaFontana & Cillessen, 2010). Young adolescents often prioritize achieving status over maintaining friendships, developing romantic relationships, and academic achievement (LaFontana & Cillessen, 2010). Furthermore, popularity typically follows a nonlinear trajectory across time (Cillessen & Borch, 2006). However, the behaviour correlates often associated with popularity can vary across development (Cillessen & Mayeux, 2004). Across the ages of 10 to 14, the association between popularity and aggression begins to decrease as the child's age increases (Cillessen & Mayeux, 2004). Put another way, both relational and physical aggression are effective behaviours for achieving status but, over time, becomes less efficient for maintaining popularity. Similarly, in a sample of 351 fifth and sixth graders from Canada and Colombia, the effect of individual prosocial behaviours at the

beginning of the school year had different effects on initial levels of popularity and the trajectory of popularity across the first six months of school (Astrologo, Persram, Castellanos, & Bukowski, 2019). Children who endorsed a higher amount of prosocial behaviours at the beginning of the school year were perceived as more popular by their peers in September (Astrologo, Persram, Castellanos, & Bukowski, 2019). However, high levels of prosocial behaviour at the beginning of the school year predicted a steeper decrease in popularity nominations than children that endorsed low levels of prosocial behaviour across the first six months of school (Astrologo, Persram, Castellanos, & Bukowski, 2019). These findings suggest that the social needs of the context may vary across points of the school year.

Popularity as a Socially Situated Construct

As previously outlined, a popular adolescent determines and enforces the social norms, social system, and acceptable social identities within a peer context (Brown, 2011). In addition, the values and behaviours endorsed by popular children vary by the context and behaviours which are based on societal expectations. These values are known to vary by gender-specific behaviours (Rose, Glick, & Smith, 2011; Eagly & Crowley, 1986), group characteristics (Bukowski, 2011; Chen & French, 2008), and by social economic status (Bukowski, 2011).

Gender norms—those that refer to gender-specific behaviours displayed by girls and boys based on social and cultural expectations they have been exposed to throughout development— shape the type of behaviour exhibited by popular adolescents (Eagly & Crowley, 1986; Rose, Glick, & Smith, 2011). For example, evidence suggests popular boys were more likely to engage in physically aggressive acts (i.e., initiate fights) than non-popular boys to achieve their interpersonal goals (Cillessen & Mayeux, 2004; Parkhurst & Hopmeyer, 1998**).** While past research posited that girls are more likely than boys to engage in relationally aggressive acts (Cillessen & Mayeux, 2004; Crick & Grotpeter, 1995), a recent meta-analysis determined the absence of a gender difference with regards to relationally aggressive behaviour of popular adolescent boys and girls (Bass, Saldarriaga, Cunha, Chen, Santo, & Bukowski, 2018). Furthermore, Closson (2009) indicated that popular boys and girls were described differently by their peers. Popular boys were typically labelled as cool, athletic, funny, and defiant. In contrast, popular girls were more likely to be better dressed, more attractive, mean, snobby, and sociable (Closson, 2009). The behaviours and characteristics of popular adolescents appear to vary by the socially endorsed gender norms of a particular context.

Furthermore, group characteristics are known to influence how the status of popularity is attributed to different members within a peer group (Bukowski, 2011). The values upheld by a society are influential in determining the social behaviours endorsed by a popular child (Bukowski, 2011; Chen & French, 2008). Accordingly, profiles of popularity can vary depending on the values endorsed within certain contexts (Brown, 2011). For example, individuals that adhere to individualistic values tend to emphasize individual achievement, self-fulfillment, and autonomy (Hofstede, 1980). In contrast, individuals that adhere to collectivistic values tend to prioritize group cohesion and concern for the needs of others (Oyserman, Coon, & Kemmelmeier, 2002). Positive behaviours, such as prosocial behaviours where individuals act in accordance to helping others, is a better predictor of social status in cultures that value group cohesion than in cultures that value individual achievement (Zhang, Pomerantz, Qin, & Ryan, 2019; Lu, Li, Li, Jin, & French, 2017) and are more valued than in cultures that value interdependence (Lu, Li, Li, Jin, & French, 2017). Cultures can vary in the values that are endorsed which appears to affect the behaviours that are associated with popularity.

Socioeconomic status is another group characteristic that appears to influence the social behaviours attributed to popularity (Adler, Kless, & Adler, 1992; Bukowski, 2011). Socioeconomic status is a measure of the resources available to an individual (Bukowski, 2011). These resources are utilized to fulfil material and esteem needs (Bukowski, 2011). Based on Maslow's (1943) hierarchy of needs theory, psychological needs are superior to material and security needs. Accordingly, the behavioural characteristics that are endorsed by popular adolescents may vary by the needs of the context which may be influenced by the amount of resources available to a community (Bukowski, 2011). Extant research suggests that adolescent girls from affluent families are more likely to become popular (Adler, Kless, & Adler, 1992). Accordingly, it could be hypothesized that adolescents from lower SES may favour behaviours that more readily address their material and security needs rather than their psychological needs. In contrast, a popular adolescent from a lower SES may be valorized for different factors than a popular adolescent from a higher SES due to the differences in resources available within the context. An empirical point of departure for this study was to address this gap in the literature by analyzing how the behaviour correlates of popularity may vary across socioeconomic status.

Present Study

The goals of the present study are threefold. First, we wanted to assess how popularity evolves across the first six months of the school year. A second goal of this paper was to assess the individual characteristics of an adolescent, specifically prosocial and aggressive behaviours, associated with popularity. Finally, we wanted to assess group variations, specifically aggregated measures of group prosocial and aggressive behaviours, in the associations between forms of individual social behaviour and popularity. The research posits that while the popular pre-adolescent may act as an anchor to the social structure of their peer group, the values they endorse are based on the context in which they exist. Consequently, the manifestation of popularity should differ across group contexts. A main goal of this paper was to assess how individual characteristics associated with popularity are dependent on contextual factors.

To achieve our goals, we conducted a three-level hierarchical model of popularity. These types of analyses were employed to examine the developmental trajectory of popularity in early adolescence and to further understand how the contextual variations influence various behavioural manifestations of popularity. We hypothesize that the individual characteristics predicting popularity to vary by characteristics of the peer group context. Specifically, we believe that some conditions are more likely to favor popularity than others and, additionally, that the meaning of the behaviours at the level of the pre-adolescent will vary as a function of peer group characteristics. Unique to this study is the use of data at the beginning of the school year and assessing popularity from a multi-level perspective.

Method

Participants

The sample consisted of 342 pre-adolescents in fifth and sixth grade (M_{age} = 11.5 years; 51% male) from four mixed-gender primary schools in Montreal, Quebec, Canada. The socioeconomic status of the participants varied across the schools and was assessed through the information provided from the respective school commission board. Pre-adolescents came from lower-middle class families (42%) and upper-middle class families (58%).

Procedure

Ethical approval was obtained from the Human Research Ethics Committee of Concordia University and permission was obtained by the appropriate school authorities. Next, the pre-adolescents were recruited through an active consent procedure which outlined the costs and benefits of participating and the premise and main objectives of the study. The pre-adolescents were given information letters outlining the objectives of the study and consent forms to be signed by their primary caregiver. An example of the information letter and consent form are included in Appendix A and Appendix B.

Before each testing session, assent was obtained from participants who returned signed consent forms. The pre-adolescents were reminded that they could discontinue their participation at any time. If a participant chose to no longer participate in the study, their data were removed from the final analyses. Participants that did not provide a signed consent form were not included in the class list for the peer nomination procedure or in the final analyses.

Data were collected using a burst design across three separate time points separated by 8-week intervals. In this burst design, each time point consisted of two separate data collections within a one-week interval. The first data collection (T1) took place during the last week of September and the first week of October. The second data collection (T2) took place during the last week of November and the first week of December. The final data collection (T3) took place during the last week of January and the first week of February.

As part of a larger study, the pre-adolescents completed peer assessment and self-report measures on tablet computers using the program INQUISIT Millisecond in a classroom setting. The peer assessment measures assessed the following social behaviours of their classmates: a) popularity, b) physical aggression, c) relational aggression, d) care, e) reactive help, f) proactive help, and g) justice. The items pertaining to each social behaviour were presented to the

participant followed by a list containing the names of all the students in their class that were participating in the study. Participants were asked to nominate each participating same-gender classmate who fit the particular item regarding each social behaviour. In addition, self-report measures assessed a) collectivistic and b) individualistic values endorsed by each participant. Responses remained anonymous through pre-assigned ID numbers. Furthermore, research assistants remained in the classroom during each testing period to facilitate the data collection and to be available should any participant require further assistance in completing the questionnaires.

Measures

Peer Assessment Measures. One item was used to measure the construct of popularity (e.g., "Someone who is popular"). Three items were used to measure the construct of physical aggression (e.g., "Someone who pushes others around"). Three items were used to measure the construct of relational aggression (e.g., "Someone who tries to keep others out of the group"). Three items were used to measure the construct of care (e.g., "Someone who cares about others in our class and grade"). Three items were used to measure the construct of reactive help (e.g., "Someone who helps others but only when he/she has been asked to help"). Two items measured the construct of proactive help (e.g., "Someone who gives assistance even when no one asks him/her to do so"). Three items were used to measure the construct of justice (e.g., "Someone who plays fairly"). Peer assessment scores for each construct were adjusted for classroom size by using a regression-based procedure (see Velásquez, Bukowski, Saldarriaga, 2013). Reliability scores are summarized in Table 1.

Self-Report Measures. Three items were used to measure the construct of collectivism (e.g., "I care about what others think before I make a decision") and five items were used to measure the construct of individualism (e.g., "I like to depend on myself more than others"). Participants used a five-point Likert-scale with endpoints *never* (1) and *almost always* (5) to rate how much they endorsed each item. Higher scores on either scale would suggest that the children's values best adhered to the specific construct. Reliability scores for each construct are reported in Table 1.

Class structure. For the purpose of these analyses, participants were nested in groups based on same gender classroom peers. A total of 44 classrooms were included in this study with the average class containing 8.5 students ($SD = 2.22$). The smallest class contained 4 students

whereas the largest class contained 13 students of the same gender. Boys were coded as 1 and girls were coded as 2 in the analyses.

Table 1

Descriptive Statistics of Social Behaviours

Scale	Cronbach's α	*M (SD)*
Physical Aggression	0.795	1.30 (2.05)
Care	0.705	4.45 SD (3.07)
Proactive Help	0.726	3.07 (2.37)
Relational Aggression	0.693	2.13 (2.33)
Reactive Help	0.625	4.71 (2.65)
Justice	0.756	5.23 (3.45)
Individualism	0.536	3.75 (0.62)
Collectivism	0.574	3.67 (0.82)
Popularity Time 1		1.40 (1.70)
Popularity Time 2		1.37 (1.61)
Popularity Time 3		1.37 (1.61)

Note. N = 375.

Results

Before conducting the main analyses, missing data was addressed. Missing data varied between 0.5 to 6.1% of the data from the variables used in the current study. Based on the assumption that the values were missing at random, a multiple imputation of 100 data sets for each participant was computed and then aggregated using the statistical software Mplus (Muthén & Muthén, 1998-2008). For the purposes of this study, only a set of predictor variables from the larger study were used to run the multiple imputations.

A three-level hierarchical model was conducted with HLM version 6 (Raudenbush, Bryk, Cheong, Congdon, & du Toit, 2004) to examine the associations between popularity and both individual level and group level behavioural characteristics. In addition, the popularity trajectory for the first six months of the school year was explored. The measures of popularity at T1, T2, and T3 were the dependent variables in these analyses. The popularity score for each child was a measure of how often they were nominated by their classroom peers as being popular after controlling for class size (see Velásquez, Bukowski, Saldarriaga, 2013). The sole predictor at Level 1 was an index of time (T1 = 0, T2 = 1, and T3 = 2). The purpose of the Level 1 model was to create a model of popularity for each child. Specifically, an intercept (reflecting participants' level of popularity at the beginning of the school year) and a slope (reflecting participants' time-structured evolution in popularity trajectories across measurement points) were computed for each participant.

Eight measures of the pre-adolescent's characteristics were included as Level 2 predictors. A total of six peer-nomination measures were included: a) physical aggression, b) relational aggression, c) reactive help, d) proactive help, e) justice, and f) care. After controlling for class size (see Velásquez, Bukowski, Saldarriaga, 2013), the number of nominations each child received for these social measures at T1 were used as a measure of their social behaviour. In addition, two self-report measures were used as predictors: collectivism and individualism. A mean score for each construct was aggregated by computing an average of the scores for the individual items pertaining to the respective construct at T1.

The variables at Level 3 were measures of the group at T1. Specifically, group means for the behavioural characteristics and self-report measures were included at Level 3 as predictors in addition to measures of SES and gender. The main purpose of the Level 3 analyses was to assess

between group variability in the effects observed at Level 1 and Level 2 and on the intercept and slope.

The first analyses consisted of creating an unconditional model to be able to assess the amount of variance between and within subjects by calculating the intraclass correlation (ICC). In the unconditional model, the pre-adolescent's individual popularity scores at each time were the outcome variables and no predictors were added into the model. Sigma-squared, a measure of within group variability, was 0.646 and the ICC was 0.45 indicating that 45% of the variance was between participants and 55% of the variance was within participants.

Level 1 Effects. In the next model, time was used as a Level 1 predictor. The coefficient of time was positive indicating that popularity increases across time within individuals (Figure 1; Table 2). Once time was included into the model, sigma-squared decreased to 0.587 indicating that Time accounted for 5.9% of the within participant variance. The effect of time was observed to be random which indicates that its effect varied across predictors both levels of predictors (Level 2 and Level 3) included in the model ($X^2(43) = 136.70$, $p = 0.00$). In addition, the coefficient for the intercept was positive and random indicating that the intercept value also varied across both levels of predictor variables ($X^2(43) = 118.56$, $p = 0.00$).

Next, the Level 2 measures were used as predictors of the variability in the intercept and slope observed at Level 1. Finally, Level 3 measures were used as predictors of the Level 1 intercept and slope and the effects of the Level 2 predictors on the Level 1 intercept and slope. All coefficient values for the entire model are summarized in Table 2.

Effects on the Intercept. Initial levels of popularity, as manifested by the intercept, were associated with individual social behaviours (Level 2) and features of the group context (Level 3). The intercept was associated with five Level 2 variables and one Level 3 variable. Four of the five Level 2 variables had effects on the intercept that were moderated by seven Level 3 variables.

The intercept was significantly associated with Level 2 physical aggression, Level 2 care, and Level 3 gender. The Level 2 effect of physical aggression on initial levels of popularity was positive and fixed. This indicates that higher scores on this social behaviour are associated with higher initial levels of popularity (Figure 2). Being fixed implies that this effect does not vary across classroom context. The Level 3 effect of gender was negative which indicates that boys were perceived as being more popular at the beginning of the school year than girls (Figure 3).

Table 2

Coefficients for Predictors in the Three-Level Hierarchical Linear Model of Popularity

Outcome	Predictor	Coefficient	SE	t Ratio	P value
Intercept		0.711	0.082	8.64	0.000
	Level 3 Gender	-0.323	0.159	-2.03	0.043
	Level 2 Physical Aggression[*]	0.418	0.119	3.52	0.001
	Level 2 Relational Aggression[**]	0.125	0.084	1.49	0.143
	Level 2 Proactive Help[**]	0.043	0.049	0.88	0.383
	Level 2 Care[**]	0.189	0.067	2.81	0.008
	Level 2 Justice[**]	0.134	0.084	1.59	0.119
Level 2 Effect of Relational Aggression on the Intercept	Level 3 SES	0.299	0.138	2.17	0.036
	Level 3 Group Relational Aggression	-0.411	0.145	-2.83	0.008
Effect of Level 2 Proactive Help on the Intercept	Level 3 Physical Aggression	-0.326	0.096	-3.40	0.002
Effect of Level 2 Care on the Intercept	Level 3 Gender	-0.360	0.099	-3.65	0.001
	Level 3 Relational Aggression	0.254	0.150	1.70	0.097
	Level 3 Collectivism	0.476	0.139	3.43	0.002
Effect of Level 2 Justice on the Intercept	Level 3 Proactive Help	-0.200	0.095	-2.12	0.040
Slope		0.138	0.044	3.14	0.004
	Level 3 SES	-0.211	0.085	-2.46	0.019
	Level 3 Physical Aggression	-0.194	0.067	-2.90	0.007
	Level 3 Individualism	0.288	0.159	1.80	0.079
	L2 Relational Aggression[**]	0.069	0.039	1.76	0.085
	Level 2 Care[*]	0.135	0.038	3.57	0.001
Effect of Relational Aggression on the Effect of Time on the Intercept	Level 3 Proactive Help	0.156	0.041	3.77	0.001

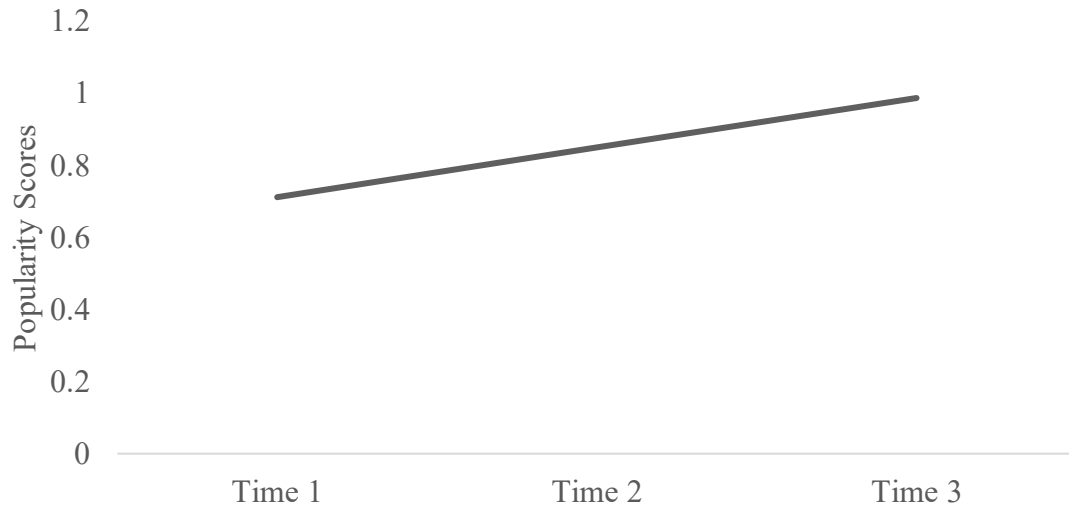*Note.* [*]Fixed Effect, [**]Random Effect. L2 denotes Level 2.

Figure 1. Average popularity trajectory (Level 1)

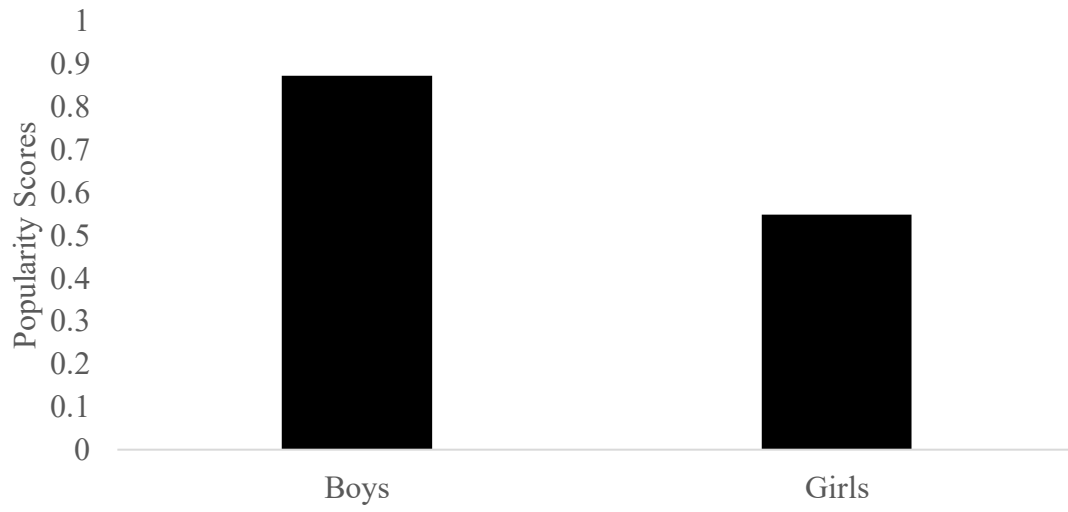*Figure 2*. Effect of Individual (Level 2) Physical Aggression on Initial Levels of Popularity

Figure 3. Effect of group (Level 3) Gender on Initial Levels of Popularity

The Level 2 effect of care was positive and random ($X^2(40) = 57.35$, $p = 0.037$.) Being random, this effect varied across group context. The effect of Level 2 care on the intercept was moderated by three Level 3 variables: group gender, group relational aggression, and group collectivism. The Level 3 measures of group relational aggression (Figure 4) and group collectivism (Figure 5) were positively associated with the Level 2 effect of care on initial levels of popularity and made the effect of care stronger on the intercept. This indicates that children with high levels of care in groups with high levels of group relational aggression and group collectivism were perceived as being more popular at the beginning of the school year. In contrast, group gender had a negative association with the Level 2 effect of care on the initial levels of popularity (Figure 6). This denotes that boys were perceived to be more popular at the beginning of the school year when engaging in caring behaviours than girls.

Relational aggression, proactive help, and justice at the level of the individual had statistically non-significant effects on initial levels of popularity, however, these effects were moderated significantly by four Level 3 variables. This indicates that the effects of relational aggression ($X^2(40) = 59.73$, $p = 0.023$), proactive help ($X^2(40) = 48.64$, $p = 0.164$), and justice ($X^2(40) = 69.09$, $p = 0.003$) were random and varied by peer group context. The effect of Level 2 relational aggression on the intercept was moderated by Level 3 SES and Level 3 relational aggression. Group SES was positively associated with the Level 2 effect of relational aggression on the intercept (Figure 7). This indicates that children from high SES classrooms engaging in relationally aggressive behaviours were perceived as more popular at the beginning of the school year than children engaging in the same behaviour within low SES classrooms. In contrast, group relational aggression was negatively associated with the Level 2 effect of relational aggression on the intercept (Figure 8). This association indicates that the effect for Level 2 relational aggression was strongest in classrooms with lower levels of relational aggression.

The statistically non-significant Level 2 effect of proactive help on the intercept was negatively and significantly moderated by group physical aggression. This finding implies that the association between proactive help and the intercept was weaker in groups that were high in physical aggression (Figure 9). Finally, Level 3 measure of proactive help significantly
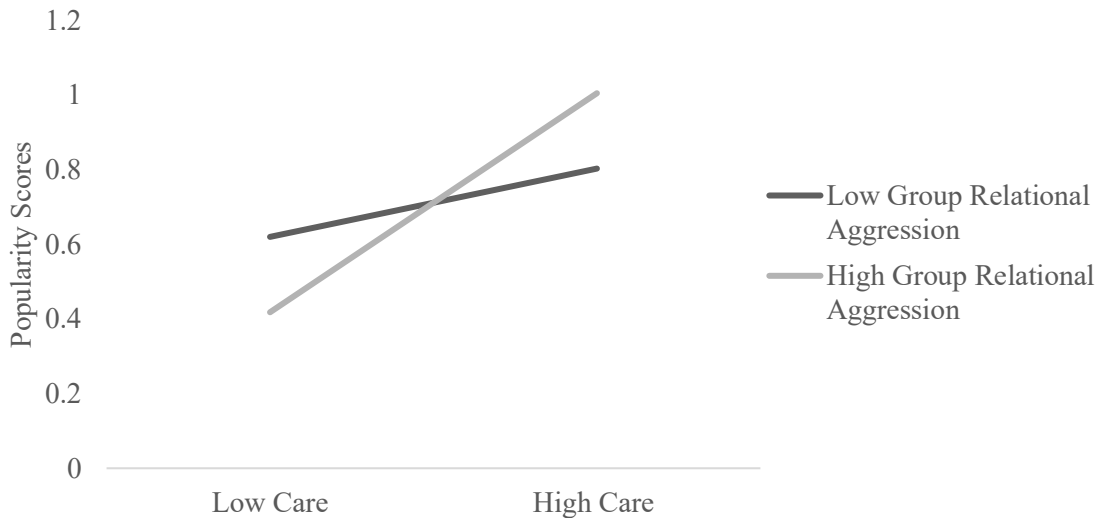
Figure 4. Effect of Classroom (Level 3) Group Relational Aggression on the Individual (Level 2) Effect of Care on Initial Levels of Popularity

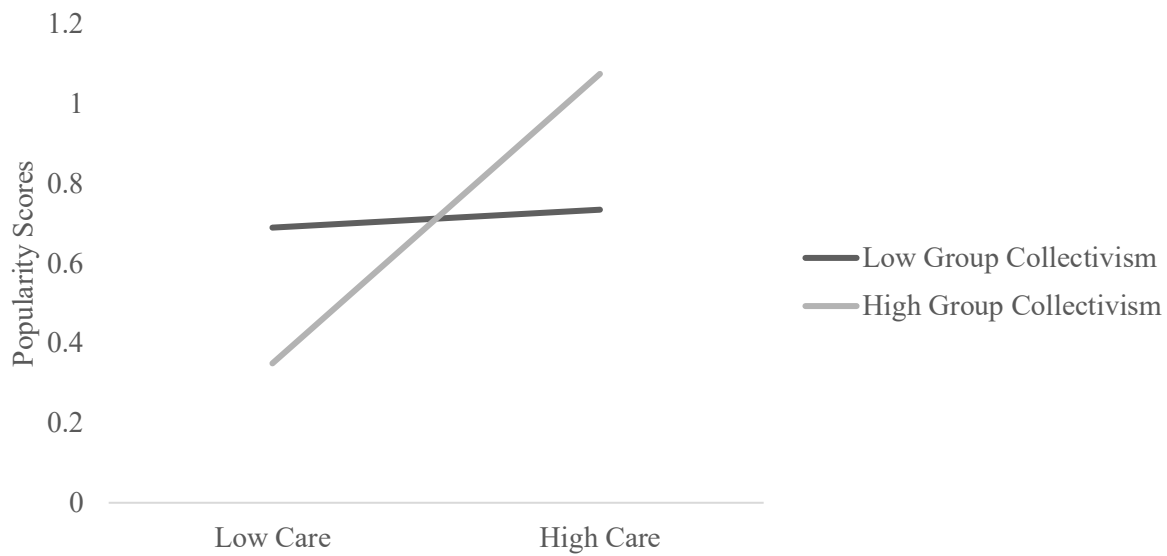*Figure 5*. Effect of Classroom (Level 3) Group Collectivism on the Individual (Level 2) Effect of Care on Initial Levels of Popularity
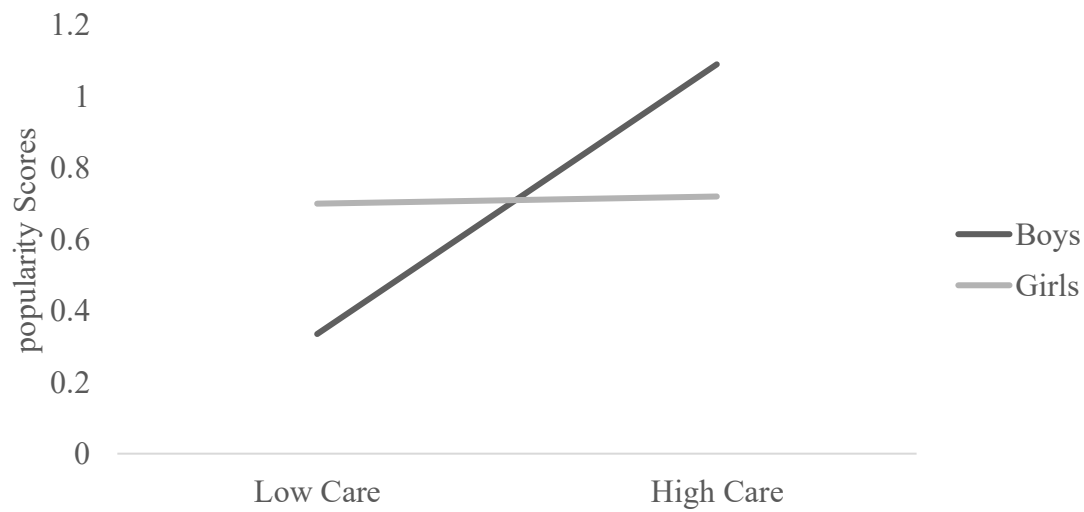
Figure 6. Effect of Classroom (Level 3) Gender on the Individual (Level 2) Effect of Care on Initial Levels of Popularity
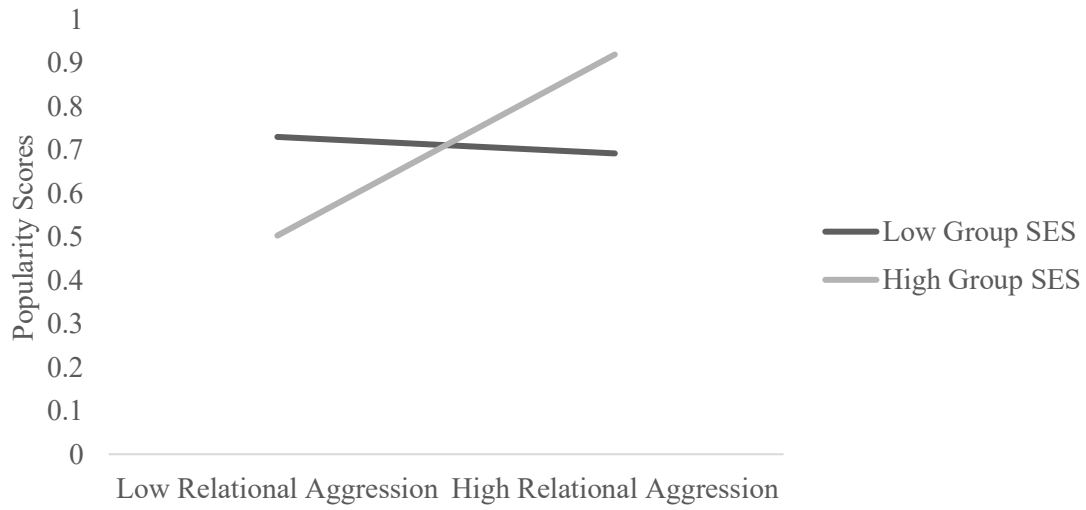
Figure 7. Effect of Classroom (Level 3) SES on the Individual (Level 2) Effect of Relational Aggression on Initial Levels of Popularity

Figure 8. Effect of Classroom (Level 3) Group Relational Aggression on the Individual (Level 2) Effect of Relational Aggression on Initial Levels of Popularity

Figure 9. Effect of Classroom (Level 3) Group Physical Aggression on the Individual (Level 2) Effect of Proactive Help on Initial Levels of Popularity

moderated the association between the statistically non-significant effect of Level 2 justice on the intercept (Figure 10). This finding was negative indicating that the association between justice and the intercept was stronger in groups that were low in proactive help.

Effects on the Slope. Overall, the slope for time was positive indicating that popularity increased across the school year. The slope of time was predicted by both individual behaviour characteristics (Level 2) and group context (Level 3). One Level 2 effect on the slope was moderated by one Level 3 variable.

The slope of time was predicted by two Level 2 variables, specifically, relational aggression and care. The effect of care on time was fixed which indicates that it did not vary by classroom context whereas the effect of relational aggression was random ($X^2(40) = 42.50$, $p = 0.364$) denoting that it varied by Level 3 predictors. The positive effect of care indicates that the slope for time was steeper for groups that were higher in care (Figure 11). The effect of Level 2 relational aggression on the slope for time was moderated by the effect of Level 3 group proactive help by making the Level 2 effect on the slope for time stronger (Figure 12). Participants engaging in relationally aggressive behaviours in classrooms with high levels of proactive help predicted higher popularity scores at the beginning of the school year than the same participants in classrooms with low levels of proactive help.

Lastly, the slope was predicted by three Level 3 variables: group SES, group physical aggression, and group individualism. The effects of the Level 3 SES (Figure 13) and group physical aggression (Figure 14) on the intercept were negative. This indicates that classrooms with lower levels of SES and physical aggression had steeper slopes for time. In contrast, the effect of individualism on the slope for time was positive (Figure 15). This effect implies classrooms with higher levels of individualism had steeper slopes. Figure 16 represents the associations observed in the analyses.
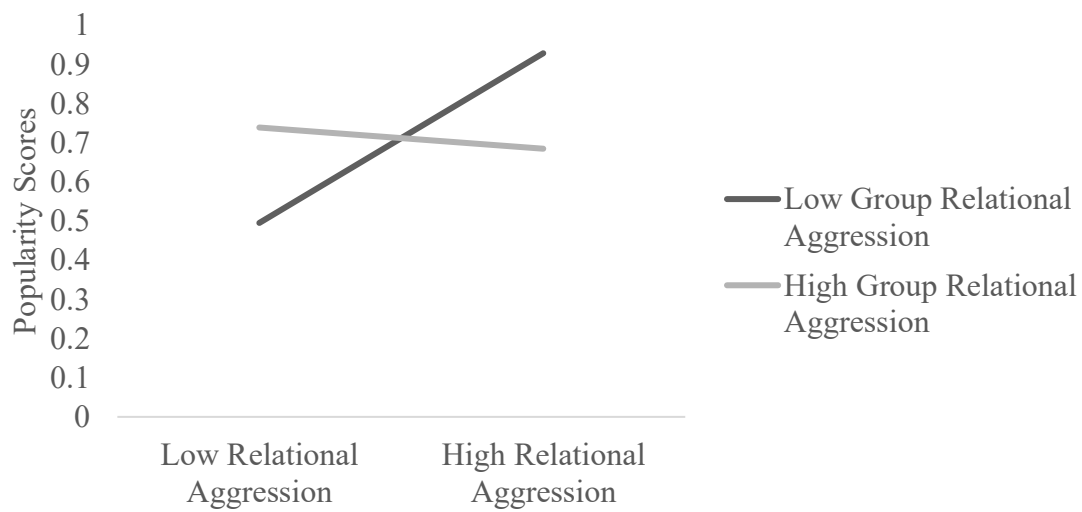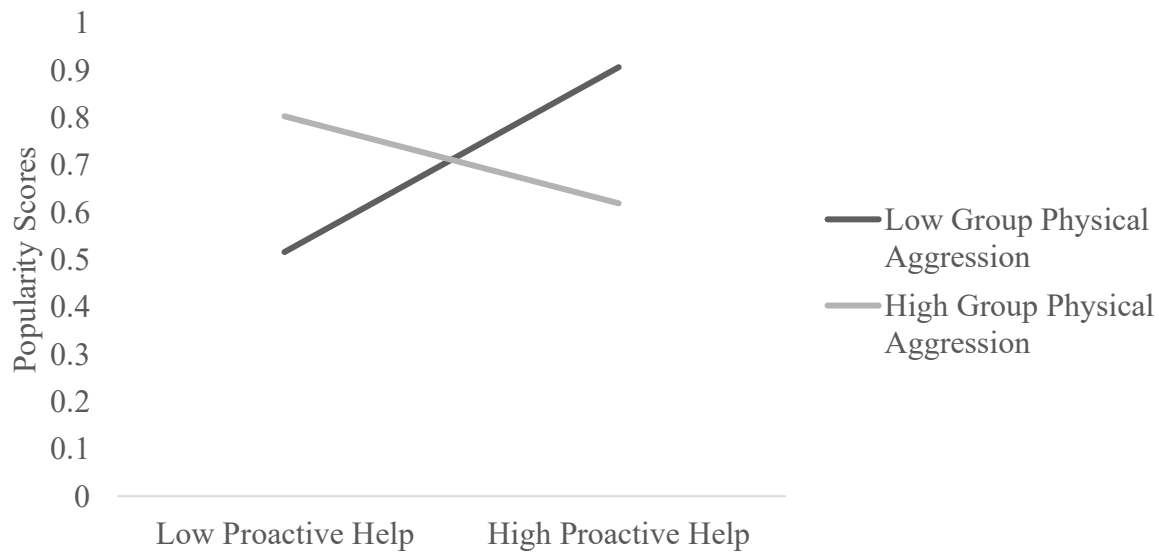
Figure 10. Effect of Classroom (Level 3) Group Proactive Help on the Individual (Level 2) Effect of Justice on Initial Levels of Popularity
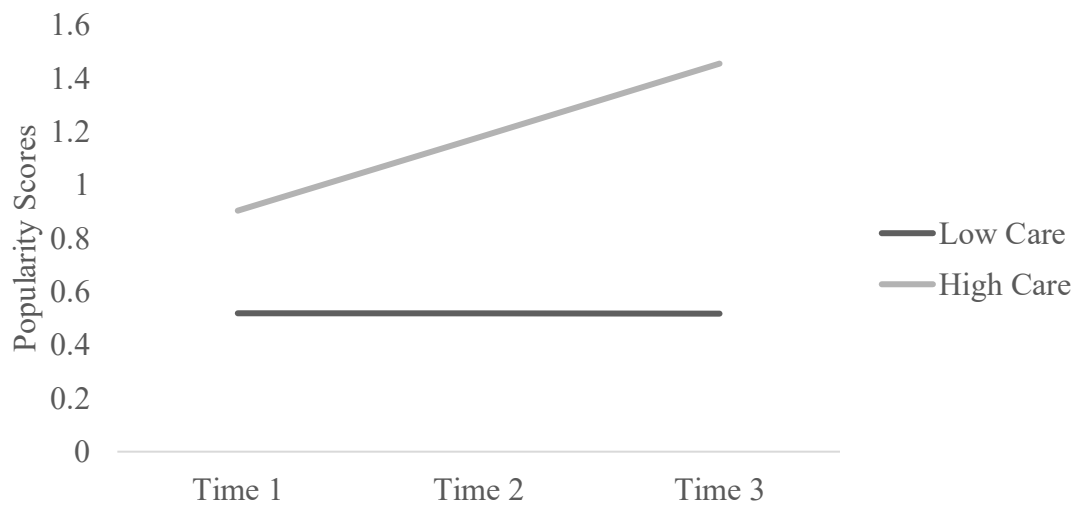
Figure 11. Effect of Individual (Level 2) Care on Popularity Trajectories
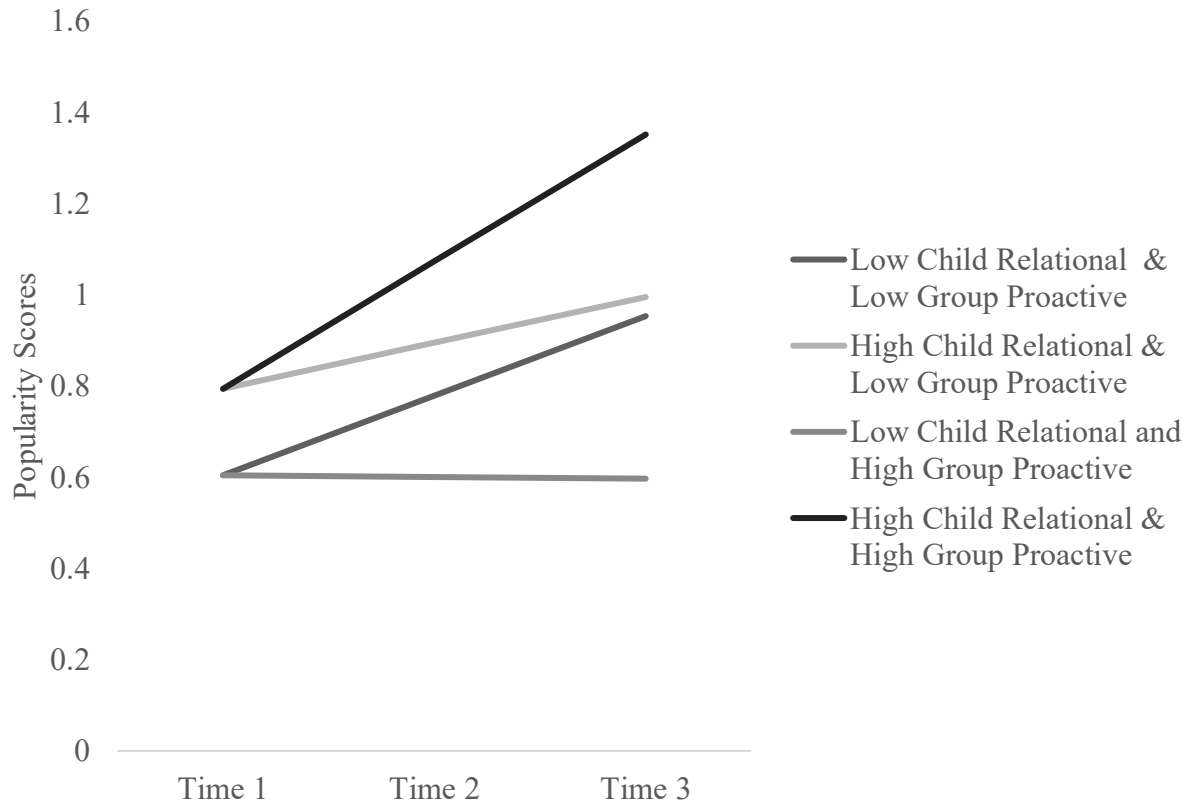
Figure 12. Effect of Classroom (Level 3) Group Proactive Help on the Individual (Level 2) Effect of Relational Aggression on Popularity Trajectories
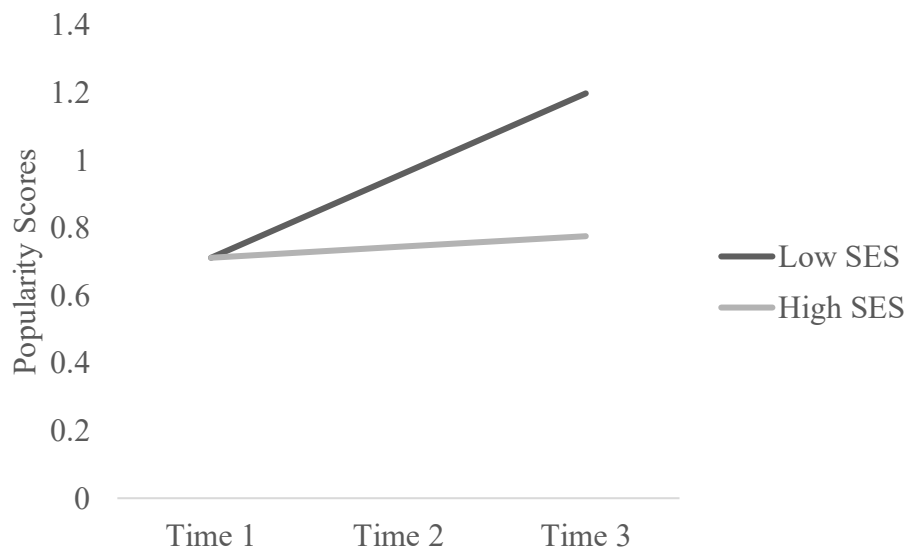
Figure 13. The Effect of Classroom (Level 3) SES on Popularity Trajectories

Figure 14. Effect of Classroom (Level 3) Group Physical Aggression Popularity Trajectories

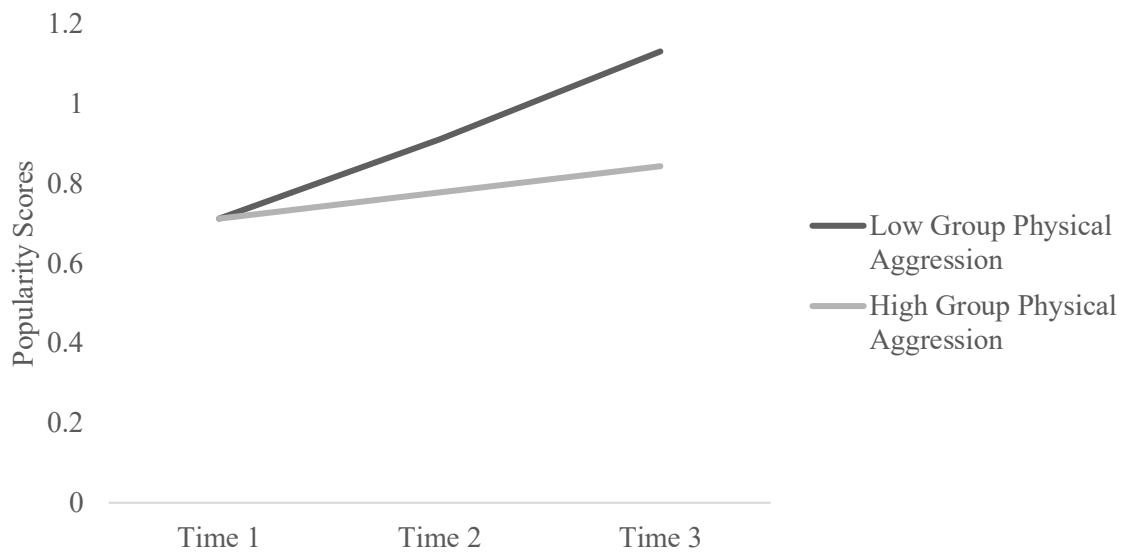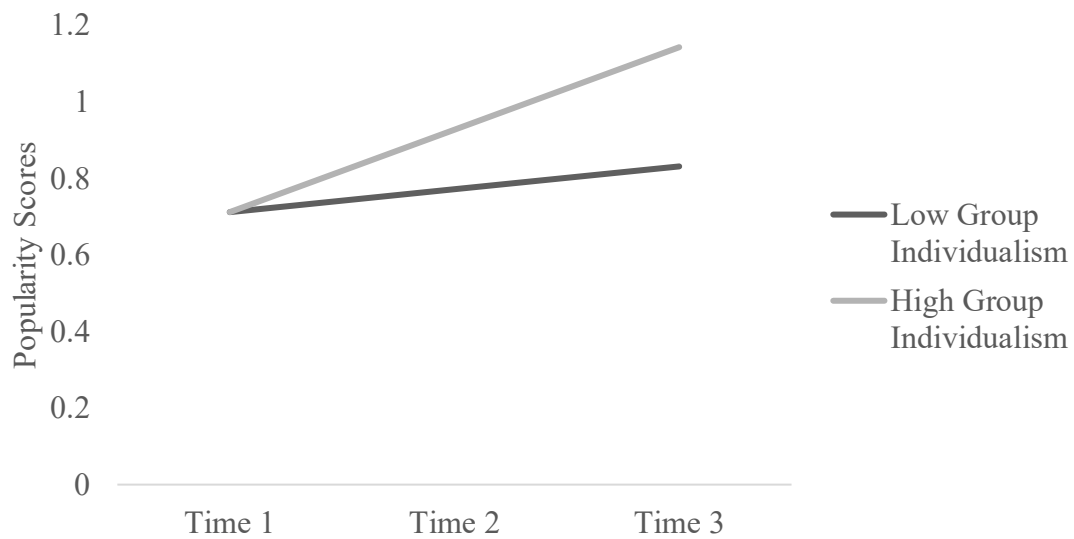*Figure 15*. Effect of Classroom (Level 3) Group Individualism on Popularity Trajectories
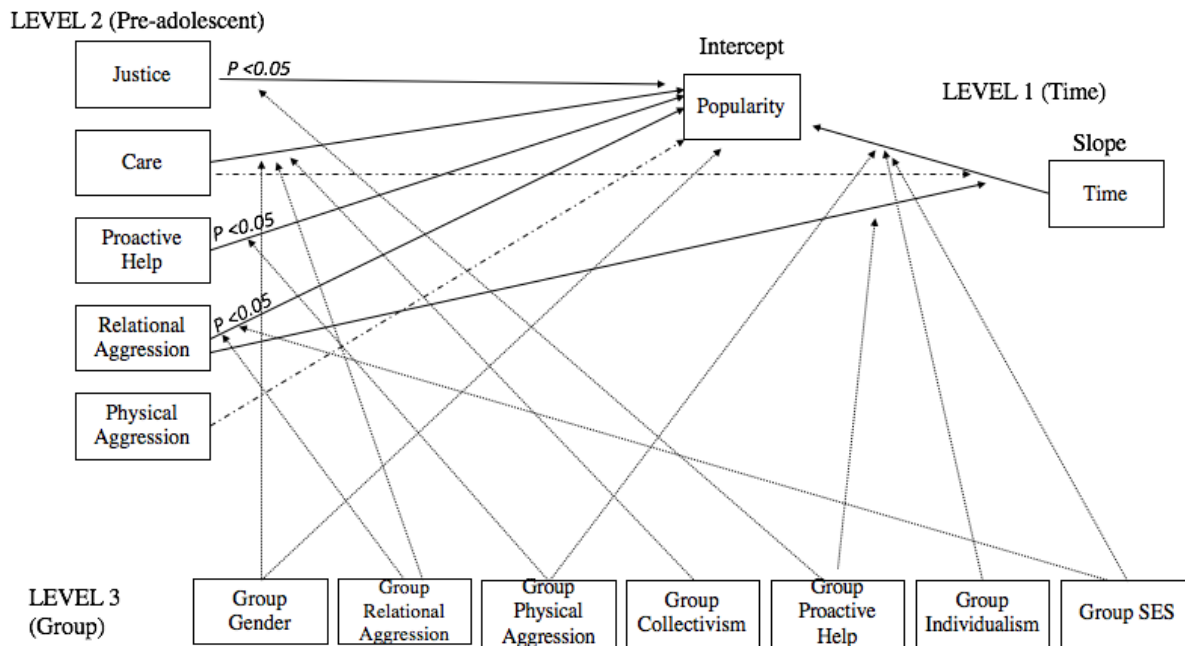
Figure 16. Figure that represents associations observed in analyses

Note. Unless specified, all effects are statistically significant. Level 2 effects denoted by solid lines are random whereas dotted lines are fixed.

Discussion

Multilevel modeling was used to examine trajectories of popularity across the first six months of the school year and to determine the contextual variations in the associations between popularity and social behaviours. A key feature of our analysis was the capacity to assess the effects observed at the level of the person and at the level of the group to account for variations in the popularity scores. The present findings extend the current literature which mostly examines the individual contributions of a child's behaviour at predicting popularity (e.g., Cillessen & Mayeux, 2004; LaFontana & Cillessen, 2002; Hawley, 2003) by determining that these behaviours vary depending on the classroom context. Moreover, it furthers our current understanding of the developmental trajectory of popularity by demonstrating how popularity varies across the first six months of the school year in a pre-adolescent sample. These findings highlight the importance of understanding how contextual factors affect the social behaviours associated with popularity in the peer group.

This study is unique in its assessment of measures at different levels of social complexity. Our analyses revealed that popularity derives from variables measured at the level of the person and the level of the group. Perhaps most impressively, the findings show that features of the classroom are not only directly associated with the intercept and slope but that they moderate the associations between features of the person and initial levels of popularity and changes in popularity during the first six months of the school year. With the exception of the Level 2 measure of physical aggression, all Level 2 effects associated with the intercept were moderated significantly by Level 3 effects. These findings show clearly that the processes underlying popularity vary as a function of the group context.

The Level 2 effect of care on the intercept was moderated by group gender, group relational aggression, and group collectivism. Boys that exhibited higher levels of care were perceived to be more popular than girls that displayed the same behaviour. This finding may indicate that caring boys are more popular since this behaviour is atypical within the peer group for boys. By acting in ways that are caring, boys can be increasing their visibility within the peer group by engaging in behaviours that are non-normative. Moreover, the effect of group relational aggression and group collectivism made the effect of Level 2 care on the intercept stronger. In classrooms with high levels of relational aggression and collectivism, exhibiting high levels of care was perceived as a useful strategy to increase status at the start of the school year. Relational

aggression is known to be associated with popularity (i.e., Cillessen & Mayeux 2004; LaFontana & Cillessen, 2002). Behaving in a relationally aggressive manner at the beginning of the school year can increase visibility of the child within the peer group and, by consequence, their perceived popularity. Conversely, behaving in ways that are caring within a context that endorses high levels of collectivism can also increase visibility. In contrast with other social behaviours, collectivistic values are associated with norms and social rules that promote group cohesion and interdependence within a peer group. Thus, by acting in prosocial ways within a high collectivistic context, visibility can be increased by endorsing the same behaviours that are being valued within the peer group.

The association between Level 2 relational aggression and the intercept was moderated by the effect of group SES and group relational aggression. The effect of group SES made the effect of Level 2 relational aggression stronger. The results show that children from high SES classrooms exhibiting high levels of relational aggression were perceived as being more popular than those from low SES classrooms. These findings suggest that relational aggression is a more useful strategy at obtaining status in a higher SES context. Put another way, aggressive behaviours appear to be less tolerated amongst lower SES classrooms. In contrast to its effect on Level 2 care, the effect of group relational aggression made the effect of Level 2 relational aggression weaker. Children who engaged in relationally aggressive behaviours in classrooms that are high in relational aggression were perceived to be less popular than children that acted in relationally aggressive manners in low relationally aggressive classrooms. This finding could suggest that relational aggression is a useful strategy at procuring status when it is an atypical behaviour in the classroom context. Acting aggressively amongst other aggressive children does not appear to provide the visibility necessary to be perceived as popular.

In addition, the Level 2 effect of proactive help on the intercept was moderated by group levels of physical aggression. Group levels of high physical aggression moderated the association between proactive help and the intercept. This finding indicates that being proactively helpful in a physical aggressive classroom was not as strongly associated with popularity as it is in a classroom that is low in aggression. Being helpful proactively in a high physically aggressive context does not appear to offer an increase in visibility amongst the peer group. While acting proactively is opposite to the norm, these proactive helping behaviours may be less impactful and visible within the peer group due to the aggressive context.

Finally, the Level 2 effect of justice on the intercept was moderated by levels of proactive help in the peer group. Put another way, group proactive help made the effect of Level 2 justice on the intercept weaker. Pre-adolescents who were high in justice were perceived as more popular in peer groups with low levels of proactive help than in peer groups with high levels of proactive help. Similar to the aforementioned interpretations, these effects suggest that behaving in ways that differentiate oneself from typical classroom behaviour may increase visibility to a greater extent than engaging in behaviours that are similar to that of the peer group.

In addition to expecting contextual variations in the social behaviours that were associated with initial levels of popularity, we hypothesized both individual and peer group behaviour characteristics would predict popularity trajectories. As with the findings associated with the intercept, the effect of time on popularity varied across two Level 2 and three Level 3 variables.

The effect of time on popularity varied by the Level 2 effects of care and relational aggression. The effect of Level 2 care on time did not vary across different peer groups. Pre-adolescents that were perceived to have higher levels of care at the beginning of the school year increased in popularity across the first six months of school at a greater rate than participants that exhibited low levels of care. While the context moderates the effect of care at the beginning of the year, across time and regardless of context, care is a social behaviour that promotes popularity. Lastly, the effect of Level 3 proactive help made the effect of relational aggression on time stronger. In high proactive help classrooms, having high levels of relational aggression was the most efficient strategy of increasing popularity scores. These results indicate that in a high proactive help classroom, relationally aggressive behaviours might be more visible and impactful which, as a consequence, promotes popularity. Similar to our findings for Level 2 and Level 3 effects on the intercept, acting in ways that are incongruent to classroom norms may not only increase visibility but also increase status across the school year.

Finally, the Level 3 effects of group SES, physical aggression, and individualism moderated the effect of time on popularity. Low SES groups increased in popularity across first six months of the school year whereas high SES groups had stable popularity scores. This suggests that popularity may be a more dynamic construct in low SES classrooms. The stability of popularity scores in high SES classrooms may suggest popular children are established early in the school year whereas popularity could be attributed to individuals later in the school year

within low SES groups. To continue, the Level 3 effect of physical aggression made the effect of time on popularity weaker. Groups that were low in physical aggression at the beginning of the school year predicted a steeper slope across the first six months of the school year. Popularity scores for groups exhibiting high levels of physical aggression remained stable across the first six months of school. While physically aggressive behaviours may increase popularity at the beginning of the school year by increasing visibility within a peer group, these findings suggest that maintaining aggressive behaviours may not be a useful strategy at increasing status. Lastly, the Level 3 effect of individualism moderated the effect of time on popularity by making it stronger. Groups perceived to have high levels of individualism increased in popularity from the beginning of the school year more so than groups perceived to have low levels of individualism. These findings suggest that having a focus on self-fulfillment and achievement promotes popularity across the first six months of school. These findings are in line with research which has established the usefulness of agentic goals over communal goals at increasing status (i.e., Ojanen & Nostrand, 2014).

Implications

Our findings highlight the contextual influences on the individual social behaviours associated with popularity. All Level 2 effects on the intercept, except for physical aggression, were moderated by contextual conditions. Similarly, the social behaviours predicting popularity trajectories varied both at the level of the individual and the group. While popular adolescents act as anchors to the social values, norms, and rules of a peer group (Brown, 2011), our findings suggest that the values endorsed by popular individuals are also sensitive to the behavioural composition of the peer groups.

We were able to establish that the classroom context influences the social behaviours associated popularity at the level of the intercept. For example, the effect of group relational aggression had an opposite effect depending on the particular individual behaviour characteristic. In peer groups perceived to have high levels of relational aggression, exhibiting low levels of relational aggression was associated with higher initial popularity scores. In contrast, in the same group context of high relational aggression, acting in accordance with high levels of care was associated with higher initial popularity scores. Our findings support a part of Cillessen's (2011) theory of popularity which emphasizes the importance of visibility and ability to maintain power as one of the four components that play a role in the procurement of popularity. Our results

indicate that the component of visibility appears to be amenable to the behaviours of the peer group such that a popular child may act in ways that differentiate them from the group in an attempt to increase their visibility within their peer group. Moreover, acting aggressively in a prosocial context may convey the message of power and ability to defend one's resources more successfully than acting prosaically in an aggressive context as we saw in our findings. Therefore, acting in ways that are different to what is common within the particular peer group context appears to promote popularity at the beginning of the school year by increasing visibility of an individual within the classroom context.

In addition to finding contextual variations in the social behaviours that were associated with popularity at the intercept, we also determined contextual variations in the social behaviours associated with popularity trajectories. For example, at the beginning of the school year, exhibiting high levels of physical aggression increased popularity. Yet, across time, classrooms lower in physical aggression increased in popularity at a steeper rate than classrooms with higher levels of physical aggression. Physical aggression appeared to be a useful strategy at procuring popularity but less effective at maintaining it. This finding supports another component of Cillessen's (2011) theory of popularity. This theory posits that one of the four factors that maintain popularity is an individual's ability to remain flexible to the needs of the group. Children that are capable of adjusting their behaviour to the needs of the social context will be more popular than children that are unable to achieve this ability.

The findings of this paper emphasize popularity as a social construct. Moreover, the behaviours associated with popularity appear to be contingent on the needs of the peer group. Behaving in ways that go against typical behaviour in a peer group appears to increase visibility and, by consequence, popularity. Moreover, the components of visibility and status pertaining to the concept of popularity appear to be achieved in different steps such that behaviours that could promote visibility may not always benefit promoting one's status over time within a peer group. Therefore, this paper underscores the importance of understanding the context and the variability within the context when assessing popularity in a pre-adolescent sample.

Strengths and Limitations

A major strength of this study was the use of a three-level hierarchical linear model analysis to extend our understanding of popularity by examining the developmental trajectory of popularity across a pre-adolescent sample and to assess the group variations of the social

behaviours associated with popularity. To our knowledge, the present study is the first of its kind to assess the effects of the peer group context on the individual behaviours that are associated with popularity.

While this study had many notable strengths, two limitations should be noted. To begin, while the concept of acceptance and popularity are established to be distinct concepts (Parkhurst & Hopmeyer, 1998; LaFontana & Cillessen, 1999; Bukowski, 2011), a correlation between the two constructs exist but has been shown to decrease quickly across adolescence (Cillessen & Borch, 2006; Cillessen, & Mayeux, 2004). Secondly, while this study assesses individualistic and collectivistic values, the entire sample came from various elementary schools across a single city in Canada. We assessed cultural variations in a sample that is expected to mainly adhere to individualistic values. However, the decision to examine the difference in values was exploratory. We wanted to assess whether having individualistic or collectivistic values was associated with popularity within both the context of the individual and the group.

Future directions

Achieving popularity becomes a significant priority for young adolescents (LaFontana & Cillessen, 2010). The popular child is known to act as an anchor to the social values, norms, and rules established amongst peer groups (Adler, Kless, & Adler, 1992**;** Cillessen & Mayeux, 2004; Brown, 2011). To better understand the impact of the social needs on popularity, future research should continue to examine the contextual variations between social behaviours associated with popularity in different settings (i.e., team sports). In addition, it would be interesting to examine whether the context influences on social behaviours associated with popularity vary across different cultures that adhere to fundamentally different values and norms. Similarly, it could be useful to understand whether the impact of the context on popularity varies across development. Since popularity becomes a priority in adolescence (LaFontana & Cillessen, 2010), we could expect the impact of the social needs will vary according to the importance attributed to being popular.

Future research should continue to examine the developmental trajectory of popularity. Given that popular children are known to engage in task-specific behaviours depending on their goal and targeted individual (Cillessen, 2011), it would be interesting to examine the variations in the strategies employed amongst popular adolescents to maintain their status. We could expect the strategies employed by adolescents to vary depending on the needs of the social context. In

addition, it would be interesting to understand the interpersonal goals behind any changes in strategies employed to achieve and/or maintaining popularity.

The findings of this study are particularly relevant to the theoretical domain of popularity. This study extends our understanding of popularity by examining the predictors of the developmental trajectory of popularity across the first six months of the school and the peer group influence on the social behaviours associated with popularity. Specifically, understanding how the peer group context influences the social behaviours that are associated popularity is a useful advancement in the literature and enables us to gain a better understanding of popularity within the peer context. This study highlights the importance of understanding popularity from a hierarchical perspective and, specifically, within a peer group context. While individual behaviours are associated with popularity, their existence appears to be contingent on the social environment. This paper has provided a new avenue of exploring how the associations between the social behaviours and popularity manifest: through the social context.

Conclusion

This present study contributes to our understanding of popularity in a couple of distinct ways. First, the association between social behaviours and popularity vary as a function of the peer group context. The use of a three-level hierarchical linear model analysis highlights popularity as a social construct where individual behaviours are moderated by contextual variations. Secondly, the longitudinal design of this study allowed for the examination of the developmental trajectory of popularity across the first six months of the school year in a pre-adolescent sample. These findings suggest that the behaviours associated with popularity vary as a function of the values and needs endorsed by a specific peer group context.

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Appendix A

Information Letter to Parents

September 2, 2014

Dear Parent(s),

I am a professor at Concordia University, where I teach and do research on children and adolescents. One of the topics I study is how children's experiences with their parents, friends, and teachers affect their well-being. This topic is of interest to many parents, teachers, and health professionals. The purpose of this letter is to tell you about a study my students and I are conducting with fifth- and sixth-graders at the St. John's School. This study will help us learn more about children, their health, and their development.

As part of the study, I will meet with the participating children in their classrooms six times over the school year, from October to December. These meetings will last about 20 minutes. We will meet the children in their school and I will ask them to fill out some questionnaires.

In these questionnaires, we will be asking children to identify:

- Who they typically associate with in school;
- The characteristics of other children in their class;
- Behaviors performed by other children in the class (e.g. helping, participating in certain types of activities, etc.);
- How they perceive themselves;
- How they perform in school and in their social relations.

All the questionnaires will be completed at the child's desk in school and none of the other children will know how any other child has answered the questions. The teachers will also complete a questionnaire about each child's competencies and their functioning in school.

We will also ask the participating children's parent(s) to complete a questionnaire for us. It will ask questions about family functioning, parental education and employment, and family income. *As an expression of our gratitude we will give two tickets to a local movie theater to parents who return the parent questionnaire to us.* Parents who choose not to fill out the parent questionnaires can still allow their children to take part in the study.

As a token of thanks, all participating children will receive a gift of school supplies and a t-shirt from the research team at the conclusion of the final data collection. In addition, we will be providing lectures to the students about mental health, and about ways to cope with the stressors they encounter in their daily lives.

We ask the children to maintain the privacy of their answers and we make certain that their answers are kept confidential.

People who do research with children or adults are required to describe the risks and benefits related to participating in their studies. We assure you that this study poses no risks, other

than what children encounter in their day-to-day lives. It is not a treatment study, and it is not intended to provide direct benefits to the students who participate, though most children enjoy participating in such studies.

The information collected in this study will be <u>completely confidential</u>, and participation is entirely voluntary. Your child is not required to participate in this study. Furthermore, you may change your mind at any time even if you already gave your permission. Again, even if your child takes part in the study you are free to decide whether or not you wish to complete the parent questionnaire.

This study has been approved by both the School Board and the Concordia University Human Research Ethics Committee. If at any time you have questions or concerns regarding your rights or your child's rights as research participants, please feel free to contact the Research Ethics and Compliance Advisor of Concordia University, at <u>ethics@alcor.concordia.ca</u>.

If you have any other questions about the study, please call me at 514-848-2424 Ext. 2184 or send me a letter at: Department of Psychology, Concordia University, 7141 Sherbrooke Ouest, Montreal, QC, H4B 1R6. You can also email me at <u>william.bukowski@concordia.ca</u>.

Please fill out the attached form and have your child return it to his/her teacher tomorrow.

As an incentive for the children to return the permission slip, any child who returns a slip, regardless of whether his/her parent has given permission for participating, will get a Concordia University pen from the research team.

Thank you for your help. We very much appreciate it.

Sincerely,

William M. Bukowski
Professor

Appendix B

Parental Consent Forms

ONE WORLD WHOLE CHILD PROJECT

(GRADES 5 and 6)

PERMISSION SLIP

Please read and sign the following:

I know that my daughter/son has been asked to be in a study conducted by Dr. W. M. Bukowski.

I know that the study is about children's experiences with their parents, friends, and teachers and their adjustment. I know that if my daughter/son participates she/he will be asked to answer some questionnaires at his/her desk in the classroom. I have been told that the questionnaires are about how young people think and feel about themselves and their friends. I know that the children will complete the questionnaires six times across the school year. I know also that all participating children will receive a gift of school supplies and a t-shirt from the research team at the conclusion of the final data collection.

I know that my daughter/son does not have to be in the study. I know also that even if she/he starts to be in it but changes her/his mind she/he can quit at any time. I also know that all answers are confidential and will NOT be shown to anyone. Only Dr. Bukowski and his assistants will know what is in the questionnaires.

Please check one of the following and ask your daughter/son to bring this permission slip into the homeroom class tomorrow.

_____   My son/daughter has permission to take part in Dr. Bukowski's study

_____   My son/daughter DOES NOT have permission to take part in Dr. Bukowski's study.

Parent's Name: _____

Signature: _____ DATE: _____

Child's Name: _____ CHILD'S SEX: ☐ Male   ☐ Female