

## Winning friends and influencing peers: Strategies of peer influence in late childhood\*

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We divided children ( $N = 719$ , grades 3–6) into five control types based on the degree to which they reported employing prosocial (indirect, cooperative) and coercive (direct, hostile) strategies of control (prosocial controllers, coercive controllers, bistrategic controllers, noncontrollers, and typicals). We tested for differences across the five types on personal characteristics, friendship motivations, wellbeing, and social integration, expecting specific patterns according to whether control is wielded, and whether coercive or prosocial behaviour (or both) is employed. Prosocial controllers revealed positive characteristics (e.g., social skills, agreeableness), intrinsic friendship motivations, and positive wellbeing. In contrast, coercive controllers revealed negative characteristics (e.g., hostility), extrinsic friendship motivations, and ill-being. Bistrategic controllers, as expected, reported the highest control, and revealed characteristics associated with both prosocial and coercive orientations. Noncontrollers, in contrast, did not report having these characteristics and felt the least effective in the peer group. Our evolutionary perspective offers unique predictions of how prosocial and coercive children are similar in terms of their instrumental goals and the consequences of using both strategies or neither.

### Introduction

Influential children stand out from their peers. Many exude competency and self-assuredness and wield their power in ways that command respect and affection. Others are domineering, aggressive, and off-putting. Yet both of these strategies may be associated with outcomes that are preferable to those associated with noncontrol, especially if both strategies are employed simultaneously.

In this paper, we explore differences in various personal characteristics of school-age children that relate to their tendencies to influence their peers and their use of particular strategies to do so. We also explore the impact of using these different strategies on wellbeing and perceptions of peer relationships. We focus on children because in many senses the school setting is a restricted model of a larger social order. Within the context of school, one can access a large swath of children's same-age social relationships. Our theoretical approach and specific hypotheses stem from a strategy-based evolutionary perspective on social dominance relations and resource control strategies (Hawley, 1999b). In this study, we examine two distinct strategies of social influence, coercive and prosocial, that may offer unique insights into social and personality development.

### *A sociobiological conundrum*

Domains of behavioural biology such as life-history theory, evolutionary biology, and sociobiology (e.g., Alexander, 1977; Axelrod, 1984) all suggest that an individual needs to be an accepted group member but simultaneously a good competitor. One needs to be a part of a social group where the presence of others facilitates acquisition of resources that are hard to obtain individually. Yet, the social group itself is a source of competition for the very resources that it facilitates. This conundrum is thought to underlie the evolution of much of human behaviour and implies that individuals must balance being egoistic and other-oriented (Alexander, 1977; Charlesworth, 1996; Trivers, 1971). Too much overt selfishness puts one at risk for alienating the very group members on which one relies (see also Bakan, 1966; McDougall, 1933; White, 1959).

*Adaptive strategies.* Individuals adapting to their environments (physical and social) develop behaviour patterns—or strategies—that function in the local conditions (Axelrod, 1984; Maynard Smith, 1974). An optimal strategy, for example, is one that expertly capitalises on the social group's mediation of material access by fostering cooperative relationships and treating others in ways that encourage goodwill,

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We are grateful to W. Edelman, L. Krappmann, K. Kreppner, H. Reis, and R. Ryan for valuable discussions related to this work. We also thank M. Grafhof, K. Hilgert, T. Malti, and B. Wanner for their assistance, and W. Scholtysik and W. Assmann for their computer services.

The data were collected as part of the Self-Regulation and Social Relations project co-directed by T.D. Little and L. Krappmann at the Max Planck Institute for Human Development. Parts of the study were presented at the 1999 biennial meeting of the Society for Research in Child Development.

\* This paper was accepted during the editorial term of Rainer K. Silbereisen.

reciprocity, and loyalty, such as helping, sharing, and appearing altruistic. Because such a strategy considers the needs and desires of others, we refer to this strategy as prosocial resource control (Hawley, 1999b). A less optimal strategy is one that disregards positive bonds to gain direct access to resources by, for example, taking, monopolising, and thwarting others. We refer to this strategy as coercive resource control (Hawley, 1999b). Despite the immediate instrumental value of this approach, it could have negative long-term social consequences. Individuals adapting especially poorly adopt no strategy, that is, neither orient to resources in the environment nor capitalise on the mediating effect of others. These individuals risk not meeting their material or social needs, depending on what types of strategies other group members employ and at what frequency (Axelrod, 1984; Maynard Smith, 1974). In the end, both prosocial and coercive strategies seek to fulfil immediate instrumental goals (i.e., social and material resource control), but prosocial strategies also promote future material and psychological success by maintaining friendly ties.

### *Resource control strategies of children*

The pursuit of resources in a social group implies intra-group competition. Important resources for children include material resources (e.g., toys; Caplan, Vespo, Pedersen, & Hay, 1991; Eisenberg & Giallanza, 1984; Hawley & Little, 1999) and affiliative social relationships (e.g., attention, love; Harlow & Zimmerman, 1959). From a peer relationship perspective, friends serve as play partners for children and buffers against victimisation (Corsaro, 1985; Hodges, Malone, & Perry, 1997; Rizzo, 1989). From a social psychological perspective, interpersonal relationships are important contexts where resources are exchanged (e.g., love, status, goods; Cook, 1987; Foa & Foa, 1980; Graziano, 1984). Not surprisingly, individuals are highly motivated to seek out others for interaction opportunities. Research in diverse domains such as motivation (e.g., White, 1959) and children's friendships (Corsaro, 1985; Rizzo, 1989) indicates that children, indeed primates in general (Chapais, 1996; Harlow & Zimmerman, 1959), are highly motivated to access social partners. To the extent that social attention is limited, children must compete for it and tend to do so in various ways (e.g., Charlesworth, 1988; Corsaro, 1985; Weinstein, 1969). Thus, social, developmental, and evolutionary perspectives suggest that positive social contacts are resources worthy of pursuit, acquisition, and defence.

*Prosocial and coercive strategies of control.* Several lines of research suggest that both prosocial and coercive behaviour can function to influence others. For example, gestures of unsolicited help (typically considered prosocial) suggest, from a motivational perspective, a need for power (McClelland, 1975; Winter, 1992). Ethological work on social dominance in young children suggests that beyond a certain age many dominant individuals access limited resources (e.g., film-viewing access) by making friendly requests and promising reciprocation (LaFreniere & Charlesworth, 1987). Coercion, although less adaptive than prosocial strategies, may nonetheless be effective in goal achievement in the peer group (Boulton, 1996; Coie, Dodge, Terry, & Wright, 1991; Olweus, 1993). In this sense, coercive approaches may be better than not trying at all (Bandura, 1997). In at least some competitive contexts (as in LaFreniere & Charlesworth's film-viewing

paradigm), children employing coercive strategies (e.g., those who make demands and threats) fare better than noncompeting children (e.g., Hawley, 2002; LaFreniere & Charlesworth, 1987).

### *General expectations arising from an evolutionary psychology perspective*

From this integrative perspective, several unique hypotheses arise. First, an evolutionary perspective suggests that children who are influential in positive ways are similar in control orientation to those who are influential in negative ways. On the other hand, we expect children employing prosocial and coercive strategies to experience divergent social consequences; prosocial strategies would attract peer regard whereas coercive strategies would not (e.g., Chung & Asher, 1996; Hopmeyer & Asher, 1997; Newcomb, Bukowski, & Pattee, 1993).

As a result of these divergent social experiences, prosocially controlling children would enjoy favourable wellbeing outcomes whereas coercive children may suffer emotional consequences from alienating their peers (Asher & Rose, 1997). According to this logic, those who are not motivated or able to control resources would not experience the success of the controllers nor enjoy the social rewards stemming from prosocial strategies. Children employing both strategies, a group heretofore unexplored (cf. "controversial children"; Newcomb et al., 1993), would enjoy the benefits of prosocial controllers and yet, at the same time, incur some of the social costs of coercive controllers.

### *Overview of the study and specific hypotheses*

We pursue a set of basic questions about children who are more or less successful at influencing their peers and their strategies for doing so. We defined five groups of children based on their relative endorsement of the degree to which they use either prosocial or coercive strategies: *prosocial controllers* employ primarily prosocial strategies, *coercive controllers* employ primarily coercive strategies, *bistrategic controllers* employ both, *subordinate children* employ neither strategy (i.e., low on both), and *typical children* are not outstanding on either strategy (i.e., neither low nor high).

Children from the three high-control groups should have qualities in common reflecting the tendency to control. That is, children from the prosocial, coercive, and bistrategic groups should report the highest levels of social influence and desire for social recognition. However, prosocially controlling children should enjoy not only the benefits of influence, but also the qualities associated with prosociality in general (e.g., well-developed social skills, success with peers, and positive wellbeing; Cooper, Okamura, & McNeil, 1995; Rigby & Slee, 1993). We also anticipate these children to express intrinsic motivations to pursue friendships (for pleasure and enjoyment; Deci & Ryan, 1985). Intrinsic social motivations would move the child to form friendly relationships enthusiastically and, at the same time, endear others to himself or herself.

In contrast, we expect coercively controlling children to experience the repercussions of instrumentally aggressive children in general (cf. reactively aggressive children; Olweus, 1993; Rigby & Slee, 1993), including impaired success in the peer domain and diminished wellbeing (Asher & Rose, 1997). Although these children may have friends (Farmer & Rodkin, 1996), we anticipate that they are motivated not intrinsically in

the peer domain, but rather extrinsically (Deci & Ryan, 1985). That is, these children would pursue friendships for power and status rather than personal fulfillment.

We expect children who employ both strategies (i.e., bistrategic controllers) to enjoy the positive qualities of prosocial children (agreeable, happy, intrinsically motivated to pursue friendships) and at the same time experience the less desirable side of coercive children (e.g., hostile, unhappy, extrinsic motivations to pursue friends). The result is a self-perception profile characterised by apparent contradiction: agreeableness, connectedness, and positive wellbeing, but also hostility, negative emotional states, and social rejection. We furthermore anticipate that children who wield little or no influence (i.e., subordinates) to have diminished social skills and have wellbeing that reflects their lack of personal power and low standing in the peer group.

## Method

### Participants

In autumn 1996, 719 children in grades 3 through 6 participated from three schools in the eastern parts of Berlin, Germany. The socioeconomic characteristics of the families were generally lower to middle class and the schools served areas that had less than 10% ethnic minority representation. Our sample contains 7% Turkish children who, on the basis of supplemental analyses, did not differ appreciably from the German majority. All children who returned parental permission slips (68% of all children) participated in the study. Supplemental selectivity analyses comparing our proportions to the population support the representativeness of our participating sample.

### Procedures and measures

Data were collected as part of a large study over three sessions separated by an average of 1 week. With at least one assistant present, a proctor read each question aloud while the children followed along, responding on 4-point scales (e.g., never, seldom, often, always). For this study, all measures were self-report (cf. Hawley, 2002). Each construct was measured by at least six items and they all exhibited acceptable reliabilities (see Appendix 1).

**Control strategies.** In addition to the two specific types of control strategies (prosocial and coercive), we assessed general social influence as a criterion-related validity construct. We expected general influence to correlate positively with both prosocial and coercive influence strategies because it assesses a child's influence tendency without reference to how it is carried out. This concept reflects a child's general motivation for influence and effectiveness. For example, "I usually get to decide what to do" does not imply that peers willingly grant this privilege or that the child imposes his or her will on peers. In contrast, prosocial influence implies that peers willingly go along with the child (i.e., "others like it when I'm the group leader"). In contrast, coercive strategies reflect a child's influence on generally unwilling peers (i.e., "I usually bully others to get what I want"). We also asked about need for social recognition with items such as, "It is important that others notice when I do well".

**Social orientation and skills.** Three constructs represented social orientation and social skills: agreeableness (e.g., sociability, helpfulness, general positive approach to others), hostility (e.g., quickness to anger, tendency to tease; see, e.g., John, Caspi, Robins, Moffitt, & Stouthamer-Loeber, 1994; McCrae & John, 1992) and sensitivity to social cues, "I can tell when I've made others feel good/bad" (Edwards & Pledger, 1990). Conscientiousness (e.g., planful, able to delay gratification; Caspi, 1998) was also assessed because of its potential differential relations to the control strategies; specifically, we expected ability to delay gratification to be positively associated with prosocial strategies and unrelated (or negatively related) with coercive strategies.

**Social motivations.** To assess the children's motivations in the social domain, we asked them to rate the importance of forming and maintaining friendships as well as their intrinsic (e.g., personal desire, sheer pleasure) and extrinsic motivations to do so (e.g., because they're expected to, or want to be popular; Deci & Ryan, 1985).

**Wellbeing.** Last, we asked the children to report their feelings of connectedness to the peer group ("others want me around"), loneliness ("I have no one to talk to"), positive affect ("happy"), and negative affect ("sad") as experienced during the preceding 2 weeks (see Little, Ryan, & Wanner, 1997, for details).

### Typology

Because social dominance and strategy use is by our definition a relative differential (see Hawley & Little, 1999), we defined our dominance groupings by dividing the distributions of responses for the prosocial and coercive strategy-use constructs into thirds (rather than using absolute cutoffs). We formed five groups: (1) *prosocial controllers* ( $n = 129$ ) scored high (i.e., in the 66th percentile or higher) on prosocial control but average or low (i.e., the 33rd percentile or lower) on coercive control; (2) *coercive controllers* ( $n = 131$ ) scored high on coercive control but average or low on prosocial control; (3) *bistrategic controllers* ( $n = 98$ ) scored high on both dimensions; (4) *subordinate children* ( $n = 100$ ) scored low on both dimensions; and (5) *typical children* ( $n = 261$ ) scored average on one of the two control strategies and average or low on the other. We used the typical children as the comparison standard in our analyses. The breakdown by grade and gender is presented in Table 1.

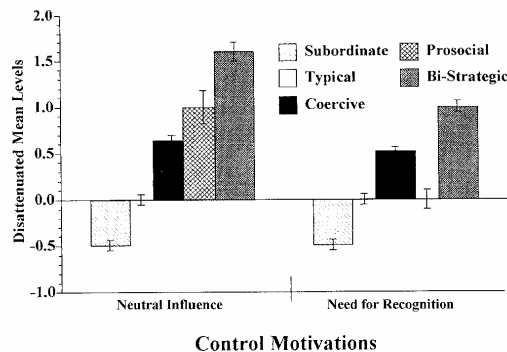
**Table 1**  
Number of children classified into the five dominance-strategy groupings

Dominance subgrouping	Males	Females	Grade in school			
			3	4	5	6
Typical	115 (44%)	146 (56%)	65	65	68	63
Subordinate	43 (43%)	57 (57%)	26	32	19	23
Coercive	84 (64%)	47 (36%)	56	26	26	23
Prosocial	58 (45%)	71 (55%)	42	24	29	34
Bistrategic	63 (64%)	35 (36%)	24	21	29	24
Totals	363 (50%)	356 (50%)	213	168	171	167

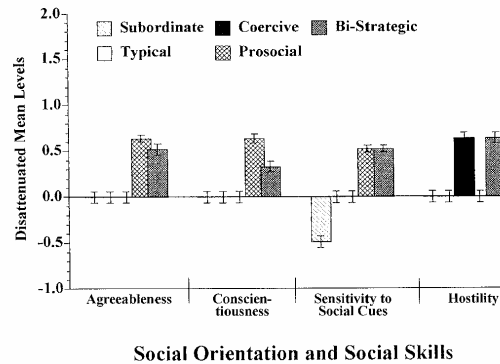
### Analytic procedures

Although the constructs that we used in this study all had reasonable to strong reliabilities (see Appendix 1) and are generally well-established in the literature, we utilised the advantages of multiple-group mean and covariance structures (MACS) analysis techniques to examine our guiding questions. As a simple extension of standard structural equation modelling procedures, a MACS analysis (1) corrects for measurement error, (2) establishes the content validity of the constructs, and (3) ensures accurate cross-group comparisons (Little, 1997). When the fit of a measurement model is acceptable in MACS analyses, it not only establishes the convergent and discriminant validities of the indicators but it also imposes the additional validity check that the mean levels or intercepts of the indicators must also conform to the expected pattern of indicator-to-construct relations.

A MACS framework also allows us to conduct direct statistical tests of our hypotheses by utilising nested-model comparisons of the  $\chi^2$  values. In particular, a model in which the parameters of interest are estimated without any constraints is compared with a model in which one or more theoretically defined constraints or restrictions are made. The difference in the  $\chi^2$  values between these two models is also distributed as a  $\chi^2$  ( $\Delta\chi^2$ ) with degrees of freedom equal to the difference in the respective model's degrees of freedom ( $\Delta df$ ). If the  $\Delta\chi^2$  is significant, it indicates that one or more constraints or restrictions are untenable and that the null hypothesis of no difference is rejectable (see, e.g., Little, 1997). The advantages here are that the expected relations among the constructs and across the groups of children can be tested and



**Figure 1.** Mean-level differences between the five control groupings on the constructs representing neutral control and need for recognition. *Note.* These are relative latent means, and the mean for the typical children is used as the baseline, thus set to zero. These constrained mean levels have been tested for whether they differ from zero and from each other. Those mean levels that did not differ from each other or from zero ( $p > .10$ ) were constrained to equality or to be zero. As a result, those mean levels that are not identical in magnitude differ from each other ( $p < .01$ ). The constraints placed on these mean levels did not lead to a significant loss in fit from the model in which the correlations were freely estimated (i.e., unconstrained). The error bars are the LISREL estimated standard errors. The standard error for the typical children is the pooled standard error of these estimates. For comparative purposes, the unconstrained mean levels are presented in Appendix 1 in their original raw metric.



**Figure 2.** Mean-level differences between the five control groupings on the constructs representing the social orientations and social skills of the children. *Note* to Figure 1 also applies.

represented in a parsimonious manner. However, for comparative purposes, we present all the basic psychometric summary information in Appendix 1.

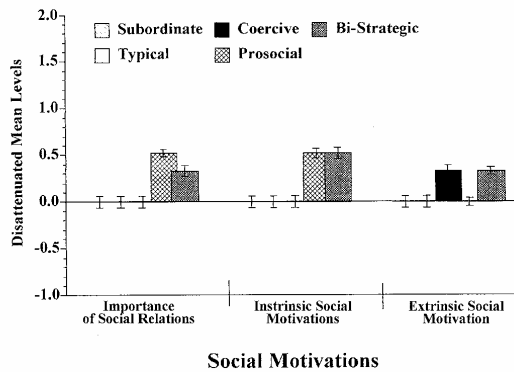
## Results

### Mean-level comparisons across the control groupings

Mean-level comparisons are presented in four figures. Figure 1 shows the mean levels of self-reported general influence and need for recognition, Figure 2 shows self-reported social orientation and skills (i.e., agreeableness, hostility, sensitivity to social cues, and conscientiousness), Figure 3 shows the means for the self-reported social motivation constructs (i.e., importance of social relationships, intrinsic social motivations, and extrinsic social motivations), and Figure 4 shows mean levels associated with the self-reported wellbeing constructs (i.e., connectedness, loneliness, positive affect, and negative affect).<sup>1</sup>

These constrained mean levels fit the data as well as the unconstrained or freely estimated means. For this model, the  $\Delta\chi^2$  (59,  $N = 719$ ) was 51.8,  $p = .74$ , indicating that these constraints reproduce the means structure as well as the model in which no constraints were placed (see also Appendix 1). In

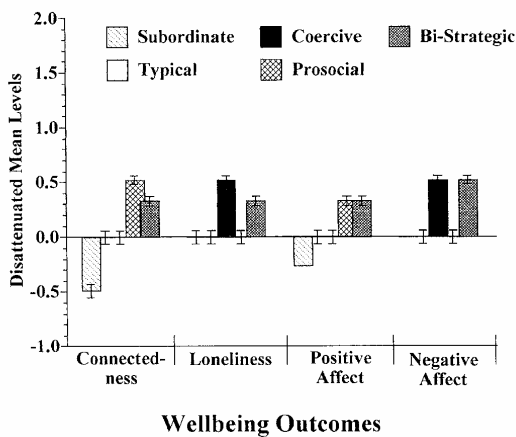
<sup>1</sup> In the five-group MACS model, we also included gender, grade in school, and their interaction as covariates. Each construct was represented by three indicators. The basic confirmatory model,  $\chi^2$  (4650,  $N = 719$ ) = 6575.4, yielded acceptable fit: root mean-squared error of approximation (RMSEA) = .054, non-normed fit index (NNFI) = .90, and incremental fit index (IFI) = .92. We then tested for cross-group comparability of the constructs by placing equality constraints on the corresponding loadings and intercepts of the indicators across the groups and freeing the latent means and variances in the 2nd through 5th group. This measurement-equivalent model,  $\chi^2$  (4890,  $N = 719$ ) = 6885.5, also yielded acceptable fit, RMSEA = .053, NNFI = .90, IFI = .92. The measurement-equivalent model was therefore used as the comparison model for all further testing (see Little, 1997). The latent variances of the constructs were equivalent (homogeneous) across the five groups,  $\Delta\chi^2$  (60,  $N = 719$ ) = 72.6,  $p = .13$ , and the correlational structure among the constructs was also mostly equivalent (homogeneous) across the five groups, with less than 1% of correlations showing a significant difference,  $\Delta\chi^2$  (452,  $N = 719$ ) = 476.1,  $p = .21$ . These equivalences, although not required for our analyses, indicate that the differences that emerged in the latent mean levels are both psychometrically and psychologically meaningful and veridical.



**Figure 3.** Mean-level differences between the five control groupings on the constructs representing the basic motivational characteristics of the children. Note to Figure 1 also applies.

viewing the mean-level findings, bear in mind that the typical children were used as the reference group; for this reason their mean levels are always zero. The relative mean-level differences for the remaining groups reflect the latent relative differences from the typical children. These relative differences were constrained to be equal if they did not differ from each other or were constrained to zero if they did not differ from the typical children. As a consequence, those mean levels that are not identical in magnitude (i.e., the bars are at different heights) are in fact significantly different from one another (all  $ps < .01$ ; see Appendix 1 for the unconstrained means in their raw metric).

**Control strategies.** As seen in Figure 1, children who reported employing control strategies reported having higher mean levels of general influence than children reporting none. Bistrategic controllers reported having the highest mean levels of control followed by prosocial controllers, and then coercive



**Figure 4.** Mean-level differences between the five control groupings on the constructs representing basic wellbeing characteristics of the children. Note to Figure 1 also applies.

controllers. Both coercive and bistrategic controllers reported higher need for recognition than did children of all other types, with subordinate children reporting the lowest. Prosocial children did not differ from typical children on need for recognition.

**Social orientation and social skills.** As seen in Figure 2, children reporting prosocial strategies of control (i.e., prosocial and bistrategic controllers) also reported higher mean levels of agreeableness, conscientiousness, and sensitivity to social cues relative to children who did not report employing prosocial strategies. Prosocial controllers, however, reported higher agreeableness and conscientiousness compared to bistrategic children. Children who reported employing coercive strategies (i.e., coercive and bistrategic controllers) reported the highest levels of hostility. Subordinate children stood out from typical children only on cue sensitivity, reporting themselves as being particularly unable to perceive when they have made someone feel good or bad.

**Social motivations.** As depicted in Figure 3, both groups who reported employing prosocial strategies (prosocial and bistrategic controllers) rated social relationships to be of higher importance than did the other three groups and reported that they are more intrinsically motivated to form peer relationships (i.e., for sheer pleasure and personal desire) than the other three groups, which did not differ from each other. Last, both coercive and bistrategic controllers reported being more extrinsically motivated to form friendships than the other groups.

**Wellbeing.** Prosocial and bistrategic controllers reported feeling more connected to their peers than the other groups, and feeling more positive in general (see Figure 4). Prosocial children in particular felt the most connected to the peer group. Coercive and bistrategic controllers reported higher levels of loneliness and negative affect. Subordinate children rated themselves as the least connected to the social group and as experiencing positive affect the least. On the other hand, they were no more lonely than typical children, nor did they report more negative affect.

## Discussion

Based on the evolutionary and child development literatures, we postulated two strategies of control—one that fosters interpersonal relationships and one that does not (Charlesworth, 1988, 1996; Hawley, 1999b). Prosocial and coercive influence showed distinct patterns of convergent and divergent relationships with other criterion-related constructs. We proposed that children using prosocial strategies would differ from those using coercive strategies, particularly in their reported positive characteristics and friendship motivations. In contrast, we thought coercive influence would be related to hostility and extrinsic (i.e., instrumental) friendship motivations. In turn, we expected these strategies to be differentially related to social and emotional outcomes. The results generally supported our expectations. This support should come as no surprise given that these patterns have been well documented and well discussed in the literature. These familiar groups, however, serve as important contrasts to less-discussed groups such as bistrategic controllers and subordinates.

*Prosocial control, adaptation, and wellbeing*

Prosocial control was related to positive social characteristics and good wellbeing outcomes. In addition to wielding power pleasantly, these children report that social relationships are important and that they are intrinsically motivated to pursue them. Like children with similar profiles (e.g., popular children; Newcomb et al., 1993), they report feeling well connected to their peers and enjoying positive wellbeing. As we see it, these children are effectively meeting their needs in ways that win the affection of peers. In turn, these positive experiences with influence and peers foster a sense of wellbeing and social competency.

Our prediction regarding need for recognition for prosocial controllers was not supported; prosocially controlling children did not differ from typical children on this dimension. Social visibility may still be important to these children. Our construct may be too focused on recognition contingent on success rather than social visibility in general. Alternatively, prosocial controllers may be less willing to admit a need for social recognition because of its egoistic implications; these children are probably well aware of what is and what is not socially appropriate.

We expected that children employing prosocial strategies would find social relationships to be particularly important. Forming friendships is one way to secure future cooperative relationships (Trivers, 1971). The intrinsic motivation of these children in the social domain would move these children to enthusiastically seek many friendly relationships and, at the same time, endear themselves to others. This pattern may be related to their low need for recognition. Their beliefs that social relationships are important and pleasurable and their active seeking of friendships would effectively foster their own social visibility. These peer experiences would then confirm the prosocial child's competency in the peer group via positive regard from others.

*Coercive control, hostility, and ill-being*

The patterns exhibited by coercive controllers are similar to known patterns found in bullies and other aggressive children (Newcomb et al., 1993; Olweus, 1993). Unlike prosocial controllers, coercive controllers report having a relatively high need for recognition and hostility. Rather than pursuing relationships for enjoyment, they report pursuing them for status and external expectations. Finally, they report experiencing more loneliness and negative affect (e.g., sadness, anxiety) than all other types.

The high level of extrinsic motivation for friendships known by coercive controllers may suggest that coercive strategies function to access present resources (social and material), but do not secure future resources by fostering collaborative relationships (see also Boldizar, Perry, & Perry, 1989). Their tendency to bully more than other children perhaps is a source of peer aversion (Coie, Dodge, & Coppotelli, 1982; Coie et al., 1991). We cannot rule out, however, that negative peer feedback causes the child to be coercive (but see Coie & Kupersmidt, 1983). Curiously, coercive controllers reported feeling no less connected to the peer group than typical children. This finding is compatible with the bully literature, which suggests that bullies do not suffer from poor self-esteem (e.g., Olweus, 1993; Rigby & Slee, 1993), but that bullying is

negatively related to measures of wellbeing (Rigby & Slee, 1993; Slee, 1995).

*Bistrategic children*

As mentioned, patterns exhibited by the prosocial and coercive controllers match well-established patterns and expectations (e.g., Coie & Dodge, 1988; Newcomb et al., 1993). Their patterns of self-report may suggest that "all good things go together". Perhaps the most thought-provoking findings are the response patterns shown by bistrategic children, who describe themselves as having the highest need for recognition and the highest levels of self-reported generalised influence, suggesting the effectiveness of this approach (especially over purely coercive strategies) or their especially high motivation for control. They claim they are more agreeable, more conscientious, and more socially perceptive than typical children, yet, at the same time, report themselves to be as hostile as coercive children. That is, they see themselves in the same positive light as the prosocial controllers, but in the same negative light as the coercive controllers (cf. the controversial child; Coie & Dodge, 1988). Similarly, they are simultaneously intrinsically and extrinsically motivated to pursue friendships, feel connected to the peer group, and yet feel more lonely than most other children, and experience positive affect as well as negative affect.

Bistrategic controllers appear to be highly motivated and able to influence others. They appear to enjoy benefits like the prosocial controllers, and yet also appear to bear a cost with their aggression like the coercive controllers. Their mix of prosociality and coercion may attract some peers while repelling others. These mixed social experiences could provide feedback that makes the bistrategic child feel positive, competent, and connected at times, and negative, incompetent, and lonely at others. Alternatively, because of their high ambition, they may not achieve personal social fulfilment, regardless of how recognised they are. We can only speculate at this time.

It is interesting to ponder the similarity of these children with very high-status adults. Moderate hostility is associated with power and successful leadership (e.g., Feist, 1993; Hogan & Hogan, 1991). We do not know, however, how prosociality and coercion are executed. Are these children prosocially controlling with allies and coercive with adversaries? Are they prosocial with high-status others and coercive to subordinates? Are they prosocial until they are obstructed? These are all questions worthy of further exploration.

*Subordination and poor adaptation*

Subordinate children reported the lowest levels of influence and the lowest need for recognition. To us, these characteristics are the hallmark of a noncontroller; the lack of ability or motivation to pursue material and therefore social resources. Although they do not differ from typical children on agreeableness, conscientiousness, and hostility, they reported the lowest levels of social skills. They do not stand out from typical children in the importance they place on social relationships nor their motivation to pursue them, but they are the least connected to the social group and experience the least positive affect. Nonetheless, they are no more lonely than typical children, nor do they experience more negative affect. These children need not be friendless; even children who are not

central to the peer group have friends (e.g., neglected children; Asher, Parker, & Walker, 1996). Perhaps these friendships buffer subordinate children from loneliness and unhappiness.

Subordinate children claim to be low on sensitivity to social cues. This result is compatible with our hypothesis that those employing prosocial strategies are particularly adept at perceiving social cues. Indeed, we believe that this is a skill (together with conscientiousness) that allows them to control others prosocially in the first place. In contrast, this result is inconsistent with the "subordination hypothesis", which suggests that individuals of low rank should be adept at attending to social cues in order to accommodate to the will of superiors (LaFrance & Henley, 1993; cf. Snodgrass, Hecht, & Ploutz-Snyder, 1998). In contrast, the self-reported behaviour pattern reflected in our data is compatible with the behaviour of victimised and rejected children. Such children tend to be anxious and ineffective communicators, as well as submissive and withdrawn (Newcomb et al., 1993; Perry, Kusel, & Perry, 1988; Schwartz, Dodge, & Coie, 1993).

### Limitations

Our two-dimensional approach is similar to the peer relations and sociometric status literature (Newcomb et al., 1993; Parker & Asher, 1987) in that both approaches can be used to divide children into types that are associated with behavioural characteristics that either repel or attract peers (Coie & Dodge, 1983; Newcomb et al., 1993; Perry et al., 1988). As such, our classification scheme has similar weaknesses associated with it; namely, the cutoffs for group memberships were established statistically rather than by meaningful psychological criteria. Additionally, the advantages afforded by the continuity of the measures is lost by the typological approach.

In addition, the theoretical model underlying our hypotheses is essentially causal and directional. Although testing the validity of such a model requires longitudinal designs, the model does offer clear predictions concerning patterns of concurrent relationships. As with most studies employing concurrent measurements, causal inferences cannot be assured. We see this study as providing preliminary support for our basic theoretical expectations. Future longitudinal and experimental work would need to be conducted in order to substantiate any causal conclusions.

Finally, the present study is based on self-report, the validity of which can be legitimately questioned. Response patterns may reflect consistency in self-presentation. However, several empirical outcomes suggest that a general self-report bias is not confounding our results. First, the MACS analyses revealed that each construct is measured discretely and equivalently across each subgrouping of children. The high degree of measurement validity indicates that differential response biases or single factor processes are unlikely. Second, the differential patterns in the results contradict a self-report bias. For example, even coercive children do not uniformly report negative self-perceptions and behaviours; for example, they report higher wellbeing than do children who endorse no influence strategies. Also, subordinate children report themselves as being no more lonely or unhappy (negative wellbeing) than typical children. On the other hand, we do not know the degree to which data such as these would predict actual behaviour. Behavioural approaches and other report are needed to illuminate such processes (e.g., Hawley, 2002; Hawley & Little, 1999).

### Conclusions

This study provided support for our view that children who attempt to control their social environments can employ at least two different strategies to do so. Using one strategy over another—prosocial or coercive—is related to the children's social orientation, social motivations, and social skills. Furthermore, the type of strategy employed is related to a child's perceptions of their standing in the peer group and their wellbeing. From an evolutionary perspective, several strategies of control would be expected to arise; one that expertly capitalises on the mediation effect of others and one that disregards this mediation. Thus, when guided by an evolutionary metatheoretical perspective, the functional similarities between prosocial and coercive children are highlighted (Hawley, 1999a). From both evolutionary and psychological perspectives, being dominant in the peer group is not necessary a shortcoming. Whether or not one has power is as important as how it is wielded.

Manuscript received January 2001

Revised manuscript received October 2001

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## Appendix 1

*Raw means and standard deviations for the subgroups, and overall reliabilities and correlations for the constructs*

Construct	Subordinate		Typical		Coercive		Prosocial		Bistrategic		Combined information		
	M	(SD)	M	(SD)	M	(SD)	M	(SD)	M	(SD)	$r_{xx}$	$r_{coercive}$	$r_{prosocial}$
<i>Control motivations</i>													
Neutral control	1.87	0.58	2.13	0.50	2.33	0.57	2.51	0.56	2.75	0.67	0.64	0.29	0.48
Need for recognition	1.78	0.72	2.17	0.66	2.42	0.74	2.72	0.80	2.21	0.73	0.60	0.33	0.27
<i>Orientation and skills</i>													
Agreeableness	2.63	0.60	2.72	0.54	2.77	0.53	2.95	0.52	3.01	0.53	0.79	0.02	0.29
Conscientiousness	2.74	0.66	2.84	0.56	2.86	0.58	3.03	0.63	3.19	0.54	0.79	-0.02	0.29
Sens. to social cues	2.24	0.83	2.59	0.66	2.69	0.66	3.05	0.77	2.92	0.78	0.84	0.15	0.35
Hostility	1.63	0.66	1.75	0.68	2.13	0.73	2.19	0.85	1.64	0.76	0.65	0.32	0.00
<i>Social motivations</i>													
Importance	2.45	0.85	2.60	0.81	2.66	0.86	2.88	0.88	2.97	0.87	0.78	0.07	0.23
Intrinsic	2.41	0.80	2.51	0.68	2.57	0.67	2.89	0.67	2.88	0.79	0.91	0.06	0.25
Extrinsic	1.67	0.51	1.72	0.53	1.92	0.57	1.95	0.58	1.77	0.60	0.97	0.19	0.07
<i>Wellbeing</i>													
Connectedness	2.42	0.74	2.75	0.72	2.64	0.68	3.06	0.71	3.11	0.66	0.78	0.06	0.39
Loneliness	1.57	0.61	1.62	0.63	1.87	0.77	1.66	0.66	1.57	0.70	0.83	0.14	-0.09
Positive affect	2.32	0.67	2.54	0.63	2.60	0.60	2.84	0.63	2.76	0.62	0.94	0.11	0.33
Negative affect	1.63	0.56	1.62	0.52	1.87	0.63	1.77	0.63	1.68	0.63	0.95	0.13	0.00