

AGGRESSION

Development of Indirect Aggression Before School Entry

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Introduction

Attempts to understand and prevent childhood aggression have been predominantly guided by a male-oriented model with a focus on physical aggression. Children can also hurt their peers in more subtle ways, however, for example through social exclusion or rumor spreading.¹⁻⁴ These forms of aggression are as harmful and elicit the same physiological pain responses as physical aggression.⁵⁻⁷ Indeed, relational aggression has been shown to have a range of negative and potentially long-lasting effects on the victims, including school avoidance, somatic complaints, anxiety, depression and even suicide ideation.⁸⁻¹¹

Subject

Different labels have been used to describe these more subtle forms of aggression. Relational aggression, consists of a set of circuitous strategies that implicate peers as a means to sabotage the victim's social relationships and self-esteem, for example, through slanderous rumors or by becoming friends with another as revenge. The indirect nature of the aggressive act often enables the aggressor to remain unidentified, thereby avoiding a counterattack from the victim and disapproval from other peers or adults. Social aggression and relational aggression also encompass directly expressed rejection of the victim and non-verbal behaviours such as facial expressions of disdain. Despite the slight differences, all these terms describe highly related constructs.

Problems

It has been argued that relational aggression is more typical of girls. However, a recent meta-analysis of 148 studies shows that, while boys are consistently more physically aggressive than girls, gender differences with regard to relational aggression are minimal regardless of children's age and ethnicity. It thus seems that both

girls and boys employ circuitous strategies as a means to attack others. Indeed, many aggressive children use both forms of aggression. ¹⁶ Nevertheless, studies have consistently revealed that physical and relational aggression constitute two forms of aggression that are clearly distinguishable already in preschool-aged children. ^{3,13,17-19}

Research Context

The recognition that aggression can be expressed through different means is strengthened further by the fact that physical aggression diminishes for most children from early childhood onwards, whereas social aggression increases. One of relational aggression over time, whereas the reverse does not seem to be the case. These diverging developmental trajectories correspond with the theoretical model of aggression proposed by Bjoerkqvist and colleagues. According to this model, very young children aggress against others primarily through physical means due to a lack of other expressive tools. As verbal and social cognitive skills evolve, children begin to use verbal aggression and, at around 4 to 5 years of age, add relational aggression to their repertoire. Because relational aggression can be as damaging as physical aggression with much less risk of retribution, relational aggression eventually becomes the primary strategy.

Key Research Questions

The different developmental trajectories have highlighted the need for a better understanding of the risk factors and potential developmental outcomes associated with relational aggression and how they compare to those of physical aggression.

Recent Research Results

Genetically-informed studies support the proposition of Bjoerkqvist and colleagues that, despite their diverging developmental trends, physical and relational aggression have common roots. This is evidenced in recent findings that indirect and physical aggression are to a large extent influenced by the same underlying genetic factors. 24-26 Moreover, both relational aggression and physical aggression have been linked with harsh and overly-controlling parenting and a lack of parental warmth and positive encouragement during the preschool years. 3,27,28 There is also evidence that indirectly and physically aggressive children share certain cognitive patterns such as the attribution of hostile intent to others and a lack of empathy. 29,30 Associations with other aspects of social cognitive functioning seem to differ, however. Contrary to predominantly physically aggressive children, indirectly aggressive children often show advanced language abilities, know how to persuade others to do their bidding, and are highly capable of predicting another person's thoughts and actions already prior to entering kindergarten. 30-33 The most pronounced differences between indirect and physical aggression lie in their social environmental correlates and outcomes, however. ²⁴⁻²⁶ In contrast to physical aggression, the frequent use of relational aggression is generally not related to social difficulties with the peer group. Despite or perhaps because of - their manipulation of others, indirectly aggressive children have very close, albeit perhaps sometimes short-lived, friendships. 18,34 Moreover, although they may not be liked by many of their peers, they often hold a prominent and influential place in the group. 35,36 It is thus not surprising that indirectly aggressive children are at a rather low risk of developing some of the later adjustment problems commonly associated with physical aggression, such as school difficulties or delinquency. 16,37,38 Compared to physical

aggression, however, relational aggression is related to more internalizing problems such as feelings of loneliness, anxiety and depression.¹⁶

Research Gaps

While the past two decades have seen a sharp increase of research on relational aggression, comparatively few studies have focused on the preschool period (i.e., before age 6). A particular concern is that the reported links between parenting behaviour and early relational aggression rest on cross-sectional data. It is thus unclear whether parents' behaviour is a precursor or a reaction to the child's relational aggression. Moreover, a meta-analysis shows that associations of parental behaviour with relational aggression are rather small.³⁹ It is possible that parents' behaviour affects children's relational aggression more indirectly, through its impact on children's cognitions and attitudes towards relational aggression. Alternatively, parents' behaviour may foster the use of relational aggression only in some children but not in others. Further research is needed to understand how parents, but also other adults such as child care providers and teachers, may facilitate the early development of relational aggression.

Conclusions

Despite the current research gaps, it is safe to say that relational aggression first appears in children's behavioural repertoire at about four years of age and is observed in both genders. Relational aggression and physical aggression seem to have some common etiological roots and especially younger children often use both behaviours to hurt others. However, whereas physical aggression decreases in most children over the course of development, relational aggression tends to increase. This increase may in large part be due to the fact that relational aggression often enables the perpetrator to do considerable damage with a relatively low risk of detection and punishment. Relational aggression is therefore also used by children with advanced cognitive and language skills. The use of relational aggression may be further facilitated by the fact that it does not seem to be related to the same array of future adjustment problems as physical aggression, although more research is needed in this regard.

Implications for Parents, Services and Policy

While relational aggression may not always entail negative consequences for the perpetrator, it clearly presents a serious risk for the mental and physical health of the victims. However, evidence suggests that adults feel less negative toward, and are less likely to intervene against, children's use of relational aggression compared to physical aggression. A first step to prevention is thus to dispel the myth that relational aggression is an exclusively female or relatively benign behaviour. It is also important to acknowledge that not all aggressive behaviours result from deficient socio-cognitive skills, but that it is sometimes highly socially, intelligent children who use their abilities to attack others. Efforts to reduce relational aggression therefore need to target all children and multi-component programs that also include teachers and parents show the most promise so far. These programs incorporate several sessions that focus specifically on how to recognize and deal with relational aggression and they also teach prosocial strategies to build relationships and resolve interpersonal conflicts with peers. Unfortunately, with one exception, prevention programs that target relational aggression have so far targeted children older than 5 years of age. However, given that relational aggression emerges at 4 years of age, prevention efforts may need to start in the early preschool period and preliminary evidence

indeed suggests that an early day-care based program with 3- to 5-year old children can successfully reduce not only physical aggression but also relational aggression.⁴⁵ Nevertheless, even the most comprehensive programs are likely to fail unless they are sustained over an extended period of time⁴⁴ and more research is needed to evaluate the sustainability of such effects.

Finally, concerted efforts to reduce relational aggression may need to extend beyond the school or family context. Many films that are considered nonviolent contain a large extent of relational aggression, something that is already apparent in the animated movies popular among preschoolers. Because viewing relational aggression in the media has been causally linked to the increased use of such behaviour in children, some researchers have called for a modification of the current rating system of media content for parental guidance. Only with a greater awareness of the potential dangers of relational aggression in a variety of contexts can we hope to prevent the negative repercussions for its victims.

References

- 1. Bjoerkqvist K, Lagerspetz KMJ, Kaukiainen A. Do girls manipulate and boys fight? Developmental trends in regard to direct and indirect aggression. *Aggressive Behavior* 1992;18:117-127.
- 2. Crick NR, Casas JF, Mosher M. Relational and overt aggression in preschool. Developmental Psychology. 1997;33:579-588.
- 3. Hart CH, Nelson DA, Robinson CC, Olsen S, McNeilly-Choque MK. Overt and relational aggression in Russian nursery-school-age children: Parenting style and marital linkages. *Developmental Psychology*. 1998;34:687-697.
- 4. Willoughby M, Kupersmidt J, Bryant D. Overt and covert dimensions of antisocial behavior in early childhood. Journal of Abnormal Child Psychology. *Journal of Abnormal Child Psychology*. 2001;29:177-187.
- 5. Crick NR, Grotpeter JK. Children's Treatment by Peers: Victims of Relational and Overt Aggression. *Development and Psychopathology*. 1996;8:367–380.
- Paquette JA, Underwood MK. Gender differences in young adolescents' experiences of peer victimization: Social and physical aggression. Merrill-Palmer Quarterly. 1999;45:242-266.
- 7. Eisenberger NI, Lieberman MD, Williams KD. Does Rejection Hurt? An fMRI Study of Social Exclusion. Science. 2003;302(5643):290-292.
- 8. Owens L, Slee P, Shute R. 'It hurts a hell of a lot . . .': The effects of indirect aggression on teenage girls. *School Psychology International.* 2000;21:359-376.
- 9. Van der Wal MF, De Wit CAM, Hirasing RA. Psychosocial health among young victims and offenders of direct and indirect bullying. *Pediatrics*. 2003;111(6 l):1312-1317.
- 10. Nixon CL, Linkie CA, Coleman PK, Fitch C. Peer relational victimization and somatic complaints during adolescence. *Journal of adolescent health*. 2011;49(3):294-299.
- 11. Kochenderfer BJ, Ladd GW. Peer victimization: Cause or consequence of school maladjustment? Child development. 1996;67(4):1305-1317.
- 12. Galen BR, Underwood MK. A developmental investigation of social aggression among children. *Developmental Psychology*. 1997;33(4):589-600.
- 13. Crick NR, Grotpeter JK. Relational aggression, gender, and social-psychological adjustment. Child Development. 1995;66:710-722.
- 14. Archer J, Coyne SM. An Integrated Review of Indirect, Relational, and Social Aggression. *Personality and Social Psychology Review*. August 1, 2005 2005;9(3):212-230.
- 15. Crick NR. Engagement in Gender Normative Versus Nonnormative Forms of Aggression: Links to Social–Psychological Adjustment. Developmental Psychology. 1997;33(4):610-617.
- 16. Card NA, Stucky BD, Sawalani GM, Little TD. Direct and Indirect Aggression During Childhood and Adolescence: A Meta-Analytic Review of Gender Differences, Intercorrelations, and Relations to Maladjustment. *Child Development*. 2008;79(5):1185-1229.
- 17. Vaillancourt T, Brendgen M, Boivin M, Tremblay RE. A Longitudinal Confirmatory Factor Analysis of Indirect And Physical Aggression: Evidence of Two Factors Over Time? *Child Development.* 2003;74:1628-1638.

- 18. Grotpeter JK, Crick NR. Relational aggression, overt aggression, and friendship. Child Development. 1996;67(5):2328-2338.
- 19. Little TD, Jones SM, Henrich CC, Hawley PH. Disentangling the "Whys" from the "Whats" of Aggressive Behavior. *International Journal of Behavioral Development*. 2003;27:122-133.
- Vaillancourt T, Miller JL, Fagbemi J, Côté S, Tremblay RE. Trajectories and predictors of indirect aggression: results from a nationally representative longitudinal study of Canadian children aged 2–10. Aggressive Behavior. 2007;33(4):314-326.
- 21. Côté S, Vaillancourt T, LeBlanc J, Nagin D, Tremblay R. The Development of Physical Aggression from Toddlerhood to Pre-Adolescence: A Nation Wide Longitudinal Study of Canadian Children. *Journal of Abnormal Child Psychology*. 2006;34(1):68-82.
- 22. Tremblay RE. When children's social development fails In: Keating DP, Hertzman C, eds. Developmental health and the wealth of nations: Social, biological, and educational dynamics. New York: Guilford Press; 1999: 55-71.
- 23. Miller JL, Vaillancourt T, Boyle MH. Examining the Heterotypic Continuity of Aggression Using Teacher Reports: Results from a National Canadian Study. Social Development. 2009;18(1):164-180.
- 24. Brendgen M, Dionne G, Girard A, Boivin M, Vitaro F, Pérusse D. Examining Genetic and Environmental Effects on Social Aggression: A Study of 6-Year-Old Twins. *Child development*. 2005;76(4):930-946.
- 25. Vitaro F, Brendgen, M., & Tremblay, R. E. (2001). Preventive intervention: Assessing its effects on the trajectories of delinquency and testing for mediational processes. *Applied Developmental Science*, 5, 201-213.
- Tackett JL. Etiology and Measurement of Relational Aggression: A Multi-Informant Behavior Genetic Investigation. *Journal of Abnormal Psychology*. 2009;118(4):722-733.
- 27. Park JH, Essex MJ, Zahn-Waxler C, Armstrong JM, Klein MH, Goldsmith HH. Relational and overt aggression in middle childhood: Early child and family risk factors. *Early Education and Development*. 2005;16(2):233-257.
- 28. McNamara KA, Selig JP, Hawley PH. A typological approach to the study of parenting: Associations between maternal parenting patterns and child behaviour and social reception. *Early Child Development and Care*. 2010;180(9):1185-1202.
- 29. Crick NR, Grotpeter JK, Bigbee MA. Relationally and Physically Aggressive Children's Intent Attributions and Feelings of Distress for Relational and Instrumental Peer Provocations. *Child Development*. 2002;73(4):1134-1142.
- 30. Kaukiainen A, Björkqvist K, Lagerspetz K, et al. The relationships between social intelligence, empathy, and three types of aggression. Aggressive behavior. 1999;25(2):81-89.
- 31. Renouf A, Brendgen M, Parent S, et al. Relations between theory of mind and indirect and physical aggression in kindergarten: evidence of the moderating role of prosocial behaviors. *Social Development*. 2010;19(3):535-555.
- 32. Bonica C, Arnold DH, Fisher PH, Zeljo A, Yershova K. Relational Aggression, Relational Victimization, and Language Development in Preschoolers. *Social Development*. 2003:12(4):551-562.
- 33. Andreou E. Social preference, perceived popularity and social intelligence: Relations to overt and relational aggression. *School Psychology International*. 2006;27(3):339-351.
- 34. Johnson DR, Foster SL. The Relationship between Relational Aggression in Kindergarten Children and Friendship Stability, Mutuality, and Peer Liking. *Early Education and Development. Special Issue: Relational Aggression During Early Childhood* 2005;16(2):141-160.
- 35. Neal JW. Social aggression and social position in middle childhood and early adolescence: Burning bridges or building them? Journal of Early Adolescence. 2010;30(1):122-137.
- 36. Heilbron N, Prinstein M. A Review and Reconceptualization of Social Aggression: Adaptive and Maladaptive Correlates. *Clinical Child and Family Psychology Review.* 2008;11(4):176-217.
- 37. Woods S, Wolke D. Direct and relational bullying among primary school children and academic achievement. *Journal of School Psychology* .42(2):135-155.
- 38. Herrenkohl TI, Catalano RF, Hemphill S, Toumbourou JW. Longitudinal examination of physical and relational aggression as precursors to later problem behaviors in adolescents. *Violence and Victims*. 2009;24(1):3-19.
- 39. Kawabata Y, Alink LRA, Tseng WL, van Ijzendoorn MH, Crick NR. Maternal and paternal parenting styles associated with relational aggression in children and adolescents: A conceptual analysis and meta-analytic review. *Developmental Review*. 2011;31(4):240-278.
- 40. Colwell MJ, Mize J, Pettit GS, Laird RD. Contextual determinants of mothers' interventions in young children's peer interactions. *Developmental Psychology*. 2002;38:492–502.
- 41. Werner NE, Senich S, Przepyszny KA. Mothers' responses to preschoolers' relational and physical aggression. *Journal of Applied Developmental Psychology*.

- 2006;27(3):193-208.
- 42. Valles NL, Knutson JF. Contingent responses of mothers and peers to indirect and direct aggression in preschool and school-aged children. *Aggressive behavior.* 2008;34(5):497-510.
- 43. Merrell KW, Buchanan R, Tran OK. Relational aggression in children and adolescents: A review with implications for school settings. *Psychology in the Schools.* 2006;43(3):345-360.
- 44. Leadbeater B. Can We See It? Can We Stop It? Lessons Learned From Community--University Research Collaborations About Relational Aggression. *School Psychology Review.* 2010;39(4):588-593.
- 45. Ostrov JM, Massetti GM, Stauffacher K, et al. An intervention for relational and physical aggression in early childhood: A preliminary study. *Early Childhood Research Quarterly*. 2009;24(1):15-28.
- 46. Coyne SM, Whitehead E. Indirect aggression in animated disney films. Journal of Communication. 2008;58(2):382-395.
- 47. Coyne SM, Archer J, Eslea M. Cruel intentions on television and in real life: Can viewing indirect aggression increase viewers' subsequent indirect aggression? *Journal of Experimental Child Psychology.* 2004;88(3):234-253.
- 48. Coyne SM. Indirect aggression on screen: A hidden problem? Psychologist. 2004;17(12):688-690.
- 49. Linder JR, Gentile DA. Is the television rating system valid? Indirect, verbal, and physical aggression in programs viewed by fifth grade girls and associations with behavior. *Journal of applied developmental psychology.* 2009;30(3):286-297.