

## **Sex differences in the developmental antecedents of aggression**

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## **Sex differences in the developmental antecedents of aggression**

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### **Abstract**

Archer examines sex differences in aggression, and argues that these differences may be better explained by sexual selection theory than by social role theory. The present commentary examines sex differences in the developmental antecedents of aggression and violence, and presents a preliminary framework for examining whether the observed sex differences amongst these developmental antecedents can also be accounted for by sexual selection theory.

The target article by Archer examines sex differences in aggression, arguing that differences in aggressive behaviour may be better explained by sexual selection theory, rather than social role theory. In the present commentary, I will examine the related question of sex differences in the developmental antecedents of aggression, and show that these too may be better explained by sexual selection theory, rather than social role theory.

Archer argues that the magnitude and nature of sex differences in aggression, which he defines as differences in both aggression between same-sex individuals, and between opposite-sex individuals, are better explained by sexual selection theory than by social role theory. One of the key underpinnings of this argument was that evidence concerning the development of aggression suggests that physical aggression emerges early in life and tends to decline thereafter, suggesting that aggression is not a learned response.

The developmental perspective on aggression has also underpinned studies that have examined the causal influence of early experience on later aggression. Several studies have examined the extent to which certain developmental factors, such as family functioning, socio-economic conditions, exposure to abuse, and other factors can account for aggression and violence later in life (Daigle, Cullen, & Wright, 2007; Fergusson, Boden, & Horwood, 2008; Howells & Rosenbaum, 2008).

One of the key findings common to these studies is that there may be reliable sex differences in the extent to which certain environmental or behavioural factors may be related to later aggression.

While this is a somewhat different issue than that addressed by Archer, an examination of the pattern of sex differences in the developmental antecedents of aggression shows that these differences can also be better explained by sexual selection theory than by social role theory.

While a wide range of studies have examined the developmental processes that predispose individuals to aggression and violence (for reviews see e.g. Emery & Billings-Laumann, 1998;

Loeber & Hay, 1997; Tolan, Gorman-Smith, & Henry, 2006), relatively few studies have identified sex differences in the extent to which certain risk factors may have differential effects on males and females in terms of predicting later violence. One such study was conducted by Fergusson, Boden, and Horwood (2008), using data from a longitudinal birth cohort. Those researchers found that several factors predicted both perpetration of and victimization by intimate partner violence (IPV) in adulthood, including childhood conduct problems, exposure to family adversity, abuse exposure, and adolescent alcohol abuse/dependence. Importantly, however, they found that exposure to family adversity was more strongly predictive of later IPV involvement for males, whereas childhood conduct problems were more strongly predictive of later IPV for females. Fergusson et al concluded that the data suggested a varied developmental pathway to IPV for males and females, although the precise mechanisms behind this pathway were unclear. Comparable findings were reported by Howells and Rosenbaum (2008), and by Daigle and colleagues (Daigle et al., 2007).

Social role theory (e.g. Eagly, 1997; e.g. Eagly & Steffen, 1986) would predict that sex differences in the developmental antecedents of aggression and violence should reflect the differential sex-role socialization experienced by males and females. For example, under such an explanation it may be expected that males will be more influenced by exposure to violence or by affiliation with violent and aggressive peers (both features of the male sex role under social role theory). On the other hand, on the assumption that the socialization of females tends to move individuals away from violence and aggression, it may be expected that females will be more influenced by the weakening of social bonds via family dysfunction.

The data on sex differences in the developmental antecedents of aggression do not seem to be congruent with this position, however. For example, Fergusson et al (Fergusson et al., 2008) found that a broad measure of family dysfunction predicted later IPV for males more strongly than females. This finding suggested that the weakening of social bonds caused by dysfunctional family

processes increased the risks of violence amongst males relative to females, counter to what would be expected under social role theory. Furthermore, conduct-disordered behaviour in childhood predicted adult IPV involvement more strongly for females than males, suggesting that there were lower levels of continuity of aggressive behaviour across the lifespan amongst males than females, again counter to what would be expected under social role theory.

The question then arises as to whether sexual selection theory can better explain the sex differences observed in the developmental antecedents of violence and aggression. Archer argues that sexual selection theory would view variability in aggression as reflecting resources important for reproduction. In the cohort studied by Fergusson et al (Fergusson et al., 2008), those males who were at greater risk of later aggression were more likely to have come from dysfunctional homes in which they were likely to have been exposed to a wide range of environmental stressors, including material deprivation. It could therefore be argued that exposure to family adversity increases violence and aggression in males by making salient resource limitations, engaging adaptive modules that serve the purpose of increasing access to resources (via aggression). Furthermore, in the study by Fergusson et al males were less likely than females to show continuity of aggression, in terms of childhood conduct disorder being linked to adult IPV involvement. Again, this may be linked to Archer's general argument that, under sexual selection theory, there should be greater variability amongst males than females in terms of the effect of local environmental conditions. If we extend "local environmental conditions" to include environmental conditions across the lifespan of the individual, it could be argued that the greater discontinuity in males relative to females reflects adaptation to variable environmental influences on aggressive behaviour.

In summary, an initial examination of the evidence pertaining to sex differences in the developmental antecedents of aggression would appear to better support the notion that aggression

is primarily a product of sexual selection, rather than social role, in agreement with Archer. Further research is needed to shed light on this question.

## References

- Daigle, L. E., Cullen, F. T., & Wright, J. P. (2007). Gender differences in the predictors of juvenile delinquency: Assessing the generality-specificity debate. *Youth Violence and Juvenile Justice, 5*(3), 254-286.
- Eagly, A. H. (1997). Sex differences in social behavior: comparing social role theory and evolutionary psychology. *American Psychologist, 52*(12), 1380-1383.
- Eagly, A. H., & Steffen, V. J. (1986). Gender and aggressive behavior: a meta-analytic review of the social psychological literature. *Psychological Bulletin, 100*(3), 309-330.
- Emery, R. E., & Billings-Laumann, L. (1998). An overview of the nature, causes, and consequences of abusive family relationships toward differentiating maltreatment and violence. *American Psychologist, 53*(2), 121-135.
- Fergusson, D. M., Boden, J. M., & Horwood, L. J. (2008). Developmental antecedents of interpartner violence in a New Zealand birth cohort. *Journal of Family Violence, 23*, 737-753.
- Howells, N. L., & Rosenbaum, A. (2008). Examination of sex differences and type of violence exposure in a mediation model of family violence. *Journal of Emotional Abuse, 8*(1), 123-138.
- Loeber, R., & Hay, D. (1997). Key issues in the development of aggression and violence from childhood to early adulthood. *Annual Review of Psychology, 48*, 371-410.
- Tolan, P., Gorman-Smith, D., & Henry, D. (2006). Family violence. *Annual Review of Psychology, 57*(1), 557-583.