

Evidence for an aggressive (and delinquent) personality

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An aggressive (and delinquent) personality can be shown to exist when observations are made across a large enough sampling of exemplars. Arguments against the existence of such a personality are based on a failure to use sufficiently aggregated measures. Numerous estimates are preferable in order to average out idiosyncratic variance thereby leaving a clearer view of underlying dimensions of behaviour. We illustrate the usefulness of this principle and suggest that consistent patterns of individual and group differences in aggression are to be found, are associated with delinquent behaviour, and are moderately heritable.

Several analyses of aggressive and antisocial behaviour in Britain (e.g. of football hooligans and inner-city gangs) have tended to ignore the importance of personality factors (e.g. Marsh, 1978; Campbell, 1981). The main empirical reason cited for negating personality is the alleged low level of cross-situational consistency in behaviour. For example, a recent study by Campbell *et al.* (1985) reported a correlation of 0.19 as indicative of the cross-situational consistency of self-reported aggression. Moreover, although significant effects to sex and social class were found (with males and lower SES subjects being more aggressive), these were de-emphasized, with the authors attributing most of the variance to 'situations'. They concluded, with extrapolations:

These findings cast doubt on the notion that lower-class males respond consistently more aggressively than others to conflict situations and, indeed, on the whole notion of an 'aggressive personality', so dear to the hearts of those charged with prediction of dangerousness in the criminal justice system . . . (p. 176).

The widespread belief that behaviour shows little cross-situational consistency stems partly from critical reviews of trait theory carried out in the 1960s (e.g. Mischel, 1968). It is possible, however, to point to a major error of interpretation permeating this literature, one exemplified in Campbell *et al.*'s study. The mistake is to use correlations between single items or behavioural events as representative of generalized traits. They very rarely are. Predictive validity is more likely to occur when a principle of aggregation is used and dimensions of behaviour are represented as the sum or mean of multiple measurements sampled from a broad domain of exemplars.

That the sum of a set of multiple measurements is a more stable and representative estimator than any single measurement occurs because the inevitable randomness found in any one measure is usually large compared with the non-random component of interest. By combining numerous exemplars, the randomness ('error variance') tends to average out because it is not cumulative, whereas behavioural consistencies ('true score variance') do accumulate, thereby leaving a clearer view of underlying relationships. This methodological point applies equally to self-report items, judges' ratings, behavioural measures and physiological indices, whether assessed in situationally specific or generalized manners (Rushton *et al.*, 1983). For example, single items on IQ tests only intercorrelate about 0.15; subtests based on 4 to 6 items correlate around 0.30 or 0.40, and batteries of items comprising, for example, verbal and performance subscales correlate approximately 0.80. While psychometricians debate the number of items and optimal degree of generality or specificity to build into questionnaires (Burisch, 1984; Paunonen & Jackson, 1985), all parties agree that some type of aggregation is necessary if the purpose is to assess generalized traits. The failure to take account of the principle of aggregation has hampered many lines of behavioural research (Rushton *et al.*, 1983).

We contend that when individual differences in aggression are assessed using aggregate procedures, (a) substantial cross-situational consistency is demonstrated, (b) group differences emerge, with younger, lower SES males being most aggressive, (c) aggression is predicted from both peer ratings and paper-and-pencil questionnaires, and (d) aggressiveness is longitudinally stable, associated with delinquency and moderately heritable. We illustrate these points with novel analyses and a review of recent literature.

Figure 1 presents the correlations between responses to an aggression questionnaire as a function of the number of items being correlated. The inventory consists of 23 items used by Rushton *et al.* (1986)

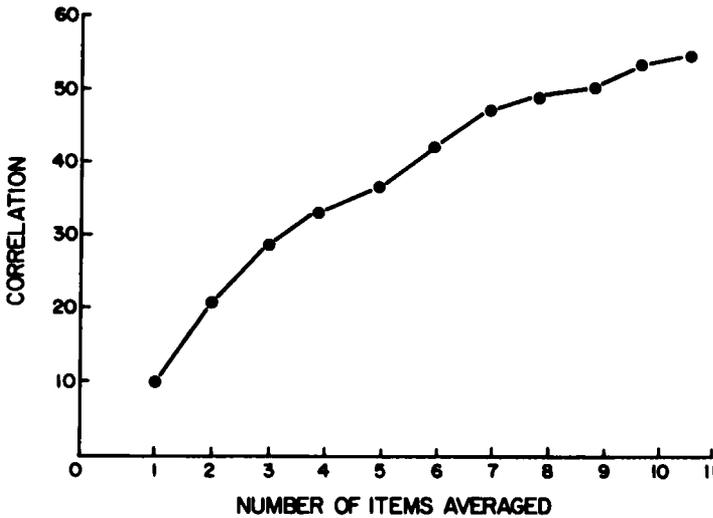


Figure 1. Relation between number of aggressive exemplars and correlation of cross-situational consistency.

in a study of 573 pairs of twins. Positively keyed items include 'Some people think I have a violent temper' and negatively keyed ones 'I try not to give people a hard time'. As the number of items being correlated increase from 1 to 4 to 8 to 11, the corresponding predictabilities increase from 0.10 to 0.29 to 0.45 to 0.54. Clearly, if the goal is to predict aggressiveness, aggregated estimates of both predictor and criterion provide increased utility.

Similar results occur with group differences. Rushton *et al.* (1986) found males to be significantly more aggressive than females (and less nurturant and empathic), and that aggressiveness decreased with age. These observations would have been missed if the analysis had relied on single items. To illustrate, the percentage of variance accounted for by sex differences in aggression in the Rushton *et al.* data increased from 1 to 3 to 8 per cent as the number of questionnaire items increase from 1 to 5 to 23. Parallel results occur when age and SES differences are examined. We combined age, sex, and SES in a multiple regression equation to predict the aggression data in the Rushton *et al.* study, again differentiating a 1 to 23 item scale. The multiple *R* increased from an average of 0.18 for single items to 0.39 for the 23 items.

Individual differences in aggressiveness, when reliably assessed, are also longitudinally stable and predictive of antisocial behaviour. For example, Huesmann *et al.* (1984), using peer ratings and questionnaire measures of aggression, found individual differences at age eight correlated 0.46 with those at age 30, and that they predicted a syndrome of antisocial behaviour including criminal convictions, traffic violations, child and spouse abuse, and physical aggressiveness outside the family. Moreover, the stability of aggression was found to exist across three generations, from grandparents to children to grandchildren.

The origin of individual differences in antisocial behaviour appears to be partly genetic (Rushton *et al.*, 1985, 1986; Wilson & Herrnstein, 1985). Too many assessment procedures and research designs have been involved for these findings not to be given serious consideration. One study of 14 427 children separated from parents at birth, for example, found that children were at risk for criminal conviction if their biological parents had been so convicted, but not if their adopting parents had been (Mednick *et al.*, 1984)]. Moreover, siblings adopted separately into different homes tended to be concordant for convictions. In Rushton *et al.*'s (1986) twin study, the heritability of aggressiveness was estimated to lie between 0.39 and 0.72. Conversely, support for the inheritance of law-abidingness comes from studies assessing prosocial behaviour, such as altruism, responsibility and self-control which demonstrate heritabilities of 0.38 to 0.70 (Rushton *et al.*, 1985, 1986). One challenge now is to specify the paths by which genes influence behaviour (Lumsden & Wilson, 1983; Wilson & Herrnstein, 1985).

It is not our intention to denigrate the role of culture, social learning or situational factors in influencing behaviour, but rather to emphasize the equal importance of stable, heritable personality dispositions. A failure to consider genetically based individual differences when explaining behaviour will lead to an incomplete and misleading perspective.

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