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Perceptions of parental styles and Eysenckian psychoticism in youth: A prospective analysis

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Abstract

Using data from the Wollongong Youth Study, we assessed the extent to which perceptions of parental styles predict levels of Eysenckian psychoticism in adolescence. Participants were 660 high school students (males = 322; females = 332; 6 did not indicate gender) who were tracked for 12 months. The modal age of the respondents was 12 years at Time 1. In addition to the psychoticism scale (Corulla, 1990), participants also rated both parents on permissiveness, authoritativeness, and authoritarianism. Structural equation modeling revealed that only one parenting style, authoritativeness, significantly predicted psychoticism at Time 2, while controlling for Time 1 psychoticism. Gender differences were also observed. The results are discussed with reference to different parenting styles and the nature of psychoticism.

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1. Introduction

It is generally agreed that parents' behaviours have implications for the well-being of their offspring (e.g., Biggam & Power, 1998; Chiariello & Orvaschel, 1995; Ge, Best, Conger, & Simons,

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1996; Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Shams & Williams, 1995). Parents influence their children in a number of different ways, for example, by serving as role models, transmitting values, and by exhibiting different parenting styles (Jaccard & Dittus, 1991). Very little research has examined the longitudinal links between perceptions of parenting and later personality in teenagers. Indeed, as far as we have been able to establish, no research has examined the extent to which adolescents' perceptions of parenting styles are related to the development of Eysenckian psychoticism. Although there is now some evidence pertaining to the genetic heritability of psychoticism (e.g. Eaves, Eysenck, & Martin, 1989; Gillespie, Evans, Wright, & Martin, 2004) as well as its biological (e.g. Zuckerman, 1991) and psychophysiological bases (Matthews & Amelang, 1993), there is almost no psycho-social evidence on the development of this personality dimension. This is the purpose of the present report.

1.1. The influence of parenting on children's adjustment

Researchers such as Baumrind (1971) and Schaefer (1959) have done much to mould our thinking and guide our research on parenting styles, and it was Baumrind who popularized the concepts permissive, authoritarian, and authoritative parental styles. She described a permissive parenting style as being non-demanding and non-controlling, but also relatively warm. Children raised in such families were found to be low on self-reliance and were also the least self-controlled and explorative. Parents manifesting an authoritarian style were described as being detached from their children, yet controlling. These children were “discontent, withdrawn, and distrustful” (Baumrind, 1971, p. 2). Finally, authoritative parents were viewed as being controlling and demanding, yet were able to mix this with warmth and rationality as well as receptiveness to the child's communication. In short, such a style was viewed as being high in control and positive encouragement, with the result that these children tended to be the best adjusted, exhibiting high levels of autonomy and independence.

There has been general support for these views. Many studies, most of which are cross-sectional in nature, have documented the links that exist between perceptions of parental styles and the emotional and behavioural outcomes of young people. That authoritative parenting is associated with positive outcomes appears without question. For example, a longitudinal study among high school students in the US and China found that perceptions of low authoritative parenting were associated with sensation seeking and adolescent drug use (Pilgrim, Luo, Urberg, & Fang, 1999). Likewise, in Hong Kong, it was found that perceptions of authoritative parenting were associated with autonomy in adolescents, with these perceptions highest among students attending highly selective academic schools compared to those in less selective schools (McBride-Chang & Chang, 1998; see also Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987). Lamborn et al. (1991) also found high psychosocial and academic competence among those youth with authoritative parents, and perceptions of authoritative parenting have been linked to teachers' ratings of the child as well adjusted (Kaufmann et al., 2000). Indeed, there is now evidence to suggest that adjustment in youth can be tracked to even more distal influences, namely, authoritative parenting in the parents of close peers (Fletcher, Darling, Steinberg, & Dornbusch, 1995).

With respect to authoritarianism and well-being, evidence appears somewhat mixed. On the one hand, children from authoritarian families have been noted for their low rates of school misconduct and drug use (Lamborn et al., 1991). On the other hand, perceptions of authoritarian par-

enting are associated with self-reported depersonalization and anxiety (Uwe, Hempel, & Miles, 2003), and dysfunctional attributions (Glasgow, Dornbusch, Troyer, Steinberg, & Ritter, 1997). Authoritarian parenting also appears to have negative effects on social interactions. For instance, using parents' reports of their parenting styles and teachers' accounts of the social competencies of pre-adolescent children, one study found authoritarian parenting to be associated with aggression, and negatively related to teachers' reports of peer acceptance, social competence, and school achievement (Chen, Dong, & Zhou, 1997). Lamborn and colleagues (1991) also noted that teenagers from authoritarian homes had poorer psycho-social adjustment compared to teenagers from authoritative homes, although they were better adjusted than children from neglectful families. Thus, evidence suggests that children in authoritarian families exhibit conforming behaviours, although they appear to be emotionally less well adjusted.

By most accounts, permissive parenting is associated with poor adjustment. Permissive parenting is one of several factors that have been found to be associated with drug misuse among young people (Secades-Villa, Fernandez-Hermida, & Vallejo-Seco, 2005). Among male Israeli-Arab adolescents, permissive parenting was related to low self-esteem, anxiety, depression, and conduct disorders (Dwairy, 2004). Thus, there is considerable evidence that warm and democratic parenting leads to positive outcomes for children, while authoritarian and permissive parenting is much less conducive to good emotional and behavioural outcomes.

1.2. Eysenckian psychoticism in young people

The third dimension in Eysenck's personality taxonomy (Eysenck & Eysenck, 1976), psychoticism (P) is said to predict general maladjustment and a propensity to engage in anti-social and delinquent behaviours (see, for instance, Center & Kemp, 2002; Chapman, Chapman, & Kwapil, 1994; Claridge, 1997; Furnham & Thompson, 1991). Although the proposal that psychoticism should be included as a major personality dimension led to extensive debate and controversy (see, for example, Bishop, 1977; Block, 1977; Claridge & Chappa, 1973; Costa & McCrae, 1992; Davis, 1974; Howarth, 1986; Van Kampen, 1993), Chapman et al. (1994) concluded that the P scale best predicts personality disorders (including schizotypy and paranoia), and psychotic-like experiences (e.g. thought transmission, aberrant beliefs, and aberrant visual experiences). Likewise, Claridge (1997) concluded that the P dimension, operationalised in the P scale, predicts serious mental illness.

Empirical evidence supports these general conclusions. Thus, Lane (1987) demonstrated that high P scale scores among youth significantly predicted convictions five years later. They also found that more serious, violent and persistent behavioural tendencies were related to higher, rather than lower, scores on the P scale. High P youth engage in a wide range of behaviours including a preference for violent films (Aluja-Fabregat, 2000) and a tendency to engage in drug misuse; alcohol, marijuana, solvents, and cocaine are often reported being used (Kirkcaldy, Siefen, Surall, & Bischoff, 2004). Psychoticism also has implications for social relationships. Whereas Powell (1977) found that those high on P responded inappropriately to interpersonal cues, and tended to engage in disruptive and anti-social behaviours, others have reported that high P youth socialize with those who might best be described as reckless or rebellious (e.g. "is daring at school and on the streets") rather than conforming or studious (Mak, Heaven, & Rummery, 2003, p. 13). These and other results accord with the view that the high P individual can best be described as

aggressive, cold, unempathic, antisocial, impersonal, and impulsive, to name just a few (Eysenck & Eysenck, 1985).

1.3. Aims and rationale of this study

As very little is known of the psycho-social determinants of Eysenckian psychoticism, the main aim of this study was to determine the extent to which P is predicted by perceptions of parenting. As parental authoritative-ness has generally been shown to be conducive to adolescents' social and academic competencies, we predicted that perceptions of authoritative-ness at Time 1 would be significantly negatively related to Time 2 psychoticism, while controlling for psychoticism at Time 1. As parental permissiveness and authoritarianism have been found to be associated with various indices of maladjustment (as has psychoticism), we predicted that perceptions of these parenting styles at Time 1 would be significantly positively related to psychoticism at Time 2, while controlling for psychoticism at Time 1.

2. Method

2.1. Participants

The participants attended five high schools in one of the Catholic Diocese of New South Wales, Australia. The Diocese is centered on the city of Wollongong, but also reaches into south-western Sydney thereby ensuring that the socio-economic and cultural mix of the school students is diverse. Participants were surveyed in the middle of their first year of high school and again twelve months later. The modal age of participants at Time 1 was 12 yrs. At Time 1, 785 students completed the questionnaire (males = 377, females = 389; 19 did not indicate gender). At Time 2, 896 students completed the survey (males = 457, females = 430; 4 did not indicate gender).

The discrepancy between Time 1 and 2 completions is due to an administrative error that occurred at Time 1 in one of the schools resulting in three classes of the year group not being available for testing on that day. Taking this into account, plus normal student transfers into and out of schools, we were able to precisely match the Time 1 and Time 2 data of 660 students (males = 322; females = 332; 6 did not indicate gender). Thus, we were able to successfully track 84.1% of the Time 1 students.

2.2. Materials

At both data collection times students were presented with a test booklet containing various measures. The following concern this research report:

2.2.1. Time 1 only

Parental authority questionnaire (PAQ; Buri, 1991). This scale, with demonstrated reliability and validity, assesses adolescents' perceptions of parental permissiveness, authoritarianism, and authoritative-ness. Initial items were selected following judgements by independent raters that the items represented Baumrind's (1971) prototypes of the various parenting styles. Other indicators of validity

have also been obtained: Furnham and Cheng (2000) found authoritativeness to be the strongest predictor of self-reported happiness, while authoritarianism predicted low self-esteem. More recently, school students who self-identified as belonging to the studious group at school were significantly more likely to perceive both parents as being high on authoritativeness. In contrast, members of the “rebel” group were least likely to view their parents as being authoritative (Heaven, Ciarrochi, Vialle, & Cechavicuite, 2005). Due to time constraints, a shortened version of the PAQ, containing 15 of the original 30 items, was used in the present study. Each of the three parenting styles for mother and father was measured with the aid of 5 items which were scored on a 5-point Likert scale with strongly disagree (scored 1) and strongly agree (scored 5) at the end points. Alpha coefficients for both parents were as follows: Permissiveness = .71; Authoritarianism = .80; Authoritativeness = .76.

2.2.2. Time 1 and Time 2

Psychoticism (Eysenck & Eysenck, 1976). We used Corulla’s (1990) revision of the junior psychoticism scale. This 12-item scale yielded alpha coefficients of .68 (Time 1) and .73 (Time 2).

2.3. Procedure

After obtaining consent from schools and parents, students were invited to participate in a study on “Youth Issues”. At both times, administration of the questionnaires took place during regular classes under the supervision of one of the authors or a teacher. Students completed the questionnaires anonymously and without any discussion. At the conclusion of the sessions students were thanked for their participation and debriefed.

3. Results

3.1. Preliminary analyses

We assessed the degree of concordance between boys’ and girls’ perceptions of mother’s and father’s parenting styles. Perceptions of mother’s and father’s permissiveness were highly correlated, $r_{(315)} = .61$, $p < .001$ (for boys), and $r_{(326)} = .53$, $p < .001$ for girls. For authoritativeness, the correlations were $r_{(315)} = .54$, $p < .001$ (boys), and $r_{(326)} = .57$, $p < .001$ (girls), whereas for authoritarianism the correlations were $r_{(315)} = .64$, $p < .001$ (boys), and $r_{(325)} = .63$, $p < .001$ (girls). Given the high levels of association across all parenting styles, it was decided to combine perceptions of mother’s and father’s styles for further analyses.

3.2. Correlational analysis

Table 1 presents the correlations between the three parenting styles (Time 1) and psychoticism at Times 1 and 2. For boys (large effect size) and girls (small effect size), perceptions of authoritativeness were significantly related to low scores on the P scale at Times 1 and 2 thereby supporting the first hypothesis. Boys who perceived their parents as permissive tended to have high P scores at Times 1 and 2 (small effect sizes). There were no significant correlations for perceptions of authoritarianism. Thus, the second hypothesis was only partly supported. Overall, the

Table 1
Correlations between perceptions of parenting and psychoticism

Time 1 perceptions of parenting	Psychoticism Time 1		Psychoticism Time 2	
	Boys	Girls	Boys	Girls
Parental Permissiveness	.17**	.08	.14*	.05
Parental Authoritarianism	-.04	.06	.02	.04
Parental Authoritativeness	-.31**	-.20**	-.30**	-.16**

* $p < .05$.

** $p < .01$.

correlations tended to be larger for boys than girls, but only those between psychoticism at Time 2 and perceptions of authoritativeness differed significantly, Fisher's r to z transformation = 1.87, $p < .05$.

3.3. Structural equation modeling

We utilized structural equation modeling (SEM) in order to assess the impact of perceptions of authoritativeness on psychoticism at Time 2 for boys and girls. A major benefit of SEM is that it allows one to represent measurement error. Fig. 1 represents the main model that was tested.

In order to represent latent variables and measurement error in the model, each scale was randomly divided into sets of items, or indicators. This allowed us to evaluate the theoretical model presented in Fig. 1 as well as simplified versions of this model. There were six indicators for parenting style (three for mother and three for father) and three for psychoticism. The first step was to compare models that assumed no correlated errors (Model 1) with one that assumed covariance between measurement errors of repeated measures and covariance between disturbances (Model 2). Separate models were run for each parenting style.

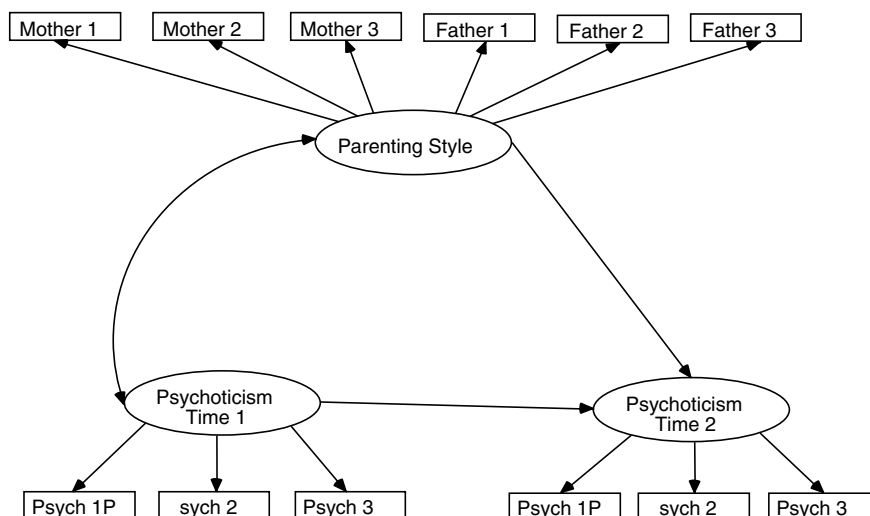


Fig. 1. Initial structural equation model used to assess the effect of parenting style on psychoticism.

Table 2
Goodness of fit summary for models in which parental authoritativeness predicts Eysenckian psychoticism

Model	χ^2	df	χ^2/df	χ^2 diff	Contrast with baseline model		NNFI	RMSEA
					df diff	NFI		
No correlated error model 1	342.441	102	3.357			.977	.975	.060
Correlated error model 2 ^a	258.337	96	2.691	84.104***	6	.983	.982	.051

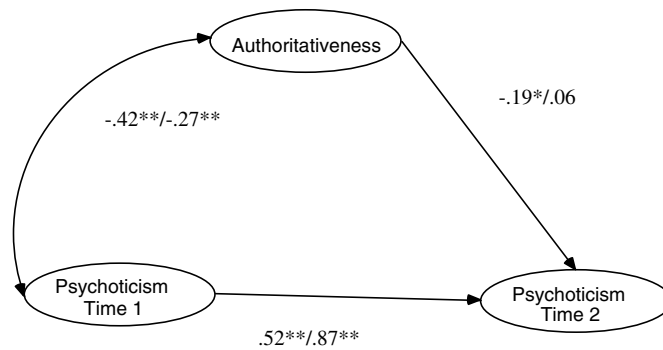
Note: NFI = Bentler-Bonett Normed Fit Index; NNFI = Bentler-Bonett Non-Normed Fit Index; RMSEA = Root Mean Square Error of Approximation.

^a Assumes covariance between measurement errors of repeated measures variables.

* $p < .05$.

** $p < .01$.

*** $p < .001$.



Note: Results for boys are presented first, followed by girls after the line.

* $p < .05$. ** $p < .01$

Fig. 2. Simplified final model showing relationships between parental authoritativeness and psychoticism for boys and girls.

As suggested by Kline (1998), we used several different goodness of fit measures to assess the models. Only the model pertaining to authoritativeness was significant. Model 2 was shown to provide better fit than model 1 (see χ^2 diff, Table 2). The measures of fit suggest that model 2 provides adequate fit, in that the χ^2/df is acceptable, NFI and NNFI are well above .90, and the RMSEA is approaching .05 (Kline, 1998). We also checked for gender differences by re-running the model separately for boys and girls. Perceptions of parental authoritativeness at Time 1 predicted psychoticism at Time 2 for boys, but not girls (see Fig. 2).

4. Discussion

This study was designed to determine the impact of perceptions of parenting on Eysenckian psychoticism among youth. Given its associations with antisocial and other deviant behaviours and its implications for mental health (Claridge, 1997), it is somewhat surprising that so little

attention has been paid to the psychosocial determinants of psychoticism. The results of the structural equation modeling showed that the strongest predictor of psychoticism at Time 2 was Time 1 psychoticism. However, among boys a significant and direct negative link was also found between perceiving parents as authoritative and psychoticism, that is, authoritativeness predicted lowered psychoticism. This was not the case for girls.

These results accord with many previous reports (most of which are cross-sectional) in which the benefits of authoritativeness on emotional wellbeing have been documented. Baumrind (1971) concluded that sons of authoritative parents are more socially responsible and friendly compared with sons from permissive and authoritarian parents. They were also described as cooperative and achievement oriented. This is quite contrary to high scoring P children who typically exhibit antisocial and delinquent behaviours (Eysenck & Eysenck, 1976) and who have also been described as “loners”, manifesting learning difficulties and truancy (Eysenck, 1997, p. 112). Baumrind (1971) found that authoritative parents socialize their children differently than permissive and authoritarian parents. Authoritativeness provide close supervision and firm, but not restrictive, control. Such a style does not lead to rebelliousness, or other behaviours typical of high P children. Rather, “. . .close supervision, high demands for obedience and personal neatness, and sharing of household responsibilities do *not* provoke chronic rebelliousness in children even at adolescence. On the contrary, such disciplinary practices are generally associated with responsible behaviour” (Baumrind, 1971, p. 94). That perceptions of parental authoritativeness predicted *reductions* in psychoticism one year later quite clearly fits with Baumrind’s (1971) findings.

Is one to conclude that authoritativeness does not lead to decreases in psychoticism among young girls? No, not necessarily. The results reported here are just a snapshot, taken over a 12-month period, of the factors that help shape psychoticism. It is quite possible that any impact of authoritativeness on psychoticism among girls may occur outside the time span of this study. It is also highly probable that the developmental journeys and the development of individual characteristics (such as psychoticism) in boys and girls vary to some degree, reflecting different life and socialization experiences, different expectations, and hormonal influences. Thus, an extension of this longitudinal study beyond one year will, in all likelihood, provide a clearer picture of the influences of authoritativeness on girls’ personality.

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