

The intergenerational transmission of need for closure underlies the transmission of
authoritarianism and anti-immigrant prejudice

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Abstract

Previous research has identified need for closure (NFC) as an important motivational-cognitive basis of authoritarianism and prejudice. However, to date, the role of NFC in the intergenerational similarity in authoritarianism and prejudice has remained unclear. In a sample of 169 parent-child dyads, we investigated the similarity between parents and children in NFC and tested whether this intergenerational similarity may account for the intergenerational similarity in authoritarianism and anti-immigrant prejudice. Our results revealed that parental levels of NFC were indeed concordant with the levels of NFC in their children. Even more importantly, parental NFC was indirectly related to child authoritarianism and prejudice in two ways. The first pathway proceeded through the direct relationships between parental and children's levels of authoritarianism and prejudice. The second pathway, however, bypassed parental levels of authoritarianism and prejudice and proceeded through the intergenerational similarity in NFC. Our findings thus indicate that a significant portion of children's levels of authoritarianism and anti-immigrant prejudice can be explained by parents-child similarity in motivated cognition. Implications for developmental theories of prejudice acquisition are discussed.

Key words: need for closure; motivated cognition; intergenerational transmission; authoritarianism; prejudice; racism

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1. Introduction

1.1. The intergenerational similarity in authoritarianism and prejudice

Authoritarianism is generally considered to be an individual difference variable of broad social-ideological nature (Sibley & Duckitt, 2008), covering the covariation of conventionalism, authoritarian aggression, and authoritarian submission (Altemeyer, 1981). Previous studies have demonstrated that authoritarianism is a strong predictor of a wide range of sociopolitical and intergroup attitudes, including generalized prejudice (for a review, see Duckitt & Sibley, 2009). Scholars have repeatedly argued that social developmental processes, and particularly socialization by parents, play an important role in the development of authoritarianism and generalized prejudice. According to traditional socialization theories, children learn and conform to their parents' attitudes, beliefs, and values through observation, imitation, and direct teaching by parents (e.g., Allport, 1954; Altemeyer, 1981; Katz, 2003). In accordance with this idea, several studies have reported a substantial correspondence between parents and their children in their levels of authoritarianism, which indicates that authoritarianism is transmitted from one generation to the next (e.g., Duriez, Soenens, & Vansteenkiste, 2008; Peterson & Duncan, 1999). For instance, Duriez et al. (2008) demonstrated that parents pass authoritarian attitudes to their children by promoting personal values like conformity and tradition rather than values related to openness to change.

In addition to the intergenerational similarity in authoritarianism, parents and children also resemble each other in terms of their levels of prejudice towards ethnic outgroups and immigrants (Carlson & Iovini, 1985; Rodríguez-García & Wagner, 2009). Because authoritarianism is considered an important social-attitudinal basis of prejudice (Sibley & Duckitt, 2008), it is not surprising that the intergenerational transmission of authoritarianism also accounts for a considerable portion of the transmission of ethnic prejudice, as demonstrated by Duriez and Soenens (2009), who found that parental authoritarianism is

related to adolescents' ethnic prejudice via two pathways (see Figure 1, variables in white boxes). One pathway (Figure 1, Paths D and F) proceeds through child authoritarianism and includes the parent-adolescent similarity in authoritarianism. The other pathway (Figure 1, Paths E and G) proceeds through parental ethnic prejudice and includes the parent-adolescent similarity in ethnic prejudice.

A focal issue in the interpretation of this model, however, is whether the parent-child similarity in authoritarianism and prejudice can be ascribed to explicit parental socialization processes, or to the parent-child similarity in underlying, general psychological needs and motivations. In particular, parent-child similarity in authoritarianism and prejudice might be based on the overt promotion of tradition and conformity, or on parental expressions of prejudice. Alternatively, this similarity might reflect an intergenerational transmission of motivated cognition giving rise to authoritarianism and prejudice. Indeed, individual differences in motivated cognitive style, in particular the need for closure, have been shown to underlie both authoritarianism and various forms prejudice (for an overview, see Roets & Van Hiel, 2011a). The inclusion of motivated cognition within the intergenerational framework of prejudice also responds to the criticism that socialization approaches to parent-child similarity tend to neglect motivational-cognitive aspects, such as children's motivations to make sense of the world (e.g., Aboud & Amato, 2001). Hence, the current research aimed to extend the intergenerational framework of authoritarianism and prejudice by investigating the role of motivated cognition.

1.2. Need for closure as motivational cognitive basis of authoritarianism and prejudice

The concept of need for closure (NFC, Webster & Kruglanski, 1994), refers to an individual's desire for firm answers and aversion toward ambiguity. People high in NFC prefer order and structure in their lives, as well as predictability, reflected in a desire for stable

knowledge. High-NFC individuals also have an urgent desire to reach swift and firm decisions. Furthermore, they feel discomfort with ambiguity and are closed-minded, reflected in an unwillingness to have their knowledge challenged by alternative opinions or inconsistent evidence (Webster & Kruglanski, 1994). For people high in NFC, the desired end is cognitive closure, which is preferably reached as fast as possible, i.e., by engaging in limited information processing. Therefore, NFC typically correlates negatively with the desire to engage in the activity of thinking as such, i.e., the need for cognition (Cacioppo & Petty, 1982), although this relationship is only modest (see Webster & Kruglanski, 1994).

Importantly, NFC is conceptualized as a general cognitive style reflecting a motivated way of thinking about *anything*, yielding quick conclusions without specifying the content. Nevertheless, according to Jost, Glaser, Kruglanski, and Sulloway (2003) psychological needs and motives, especially NFC, are the driving force to adopt certain ideological beliefs. In particular, because high-NFC individuals ascribe higher importance to clarity and order, while showing high resistance to change, they should be more inclined to adhere to conservative and authoritarian ideologies, as these ideologies meet their basic closure needs. A number of studies have supported this assumption, showing that NFC leads to typical expressions of authoritarianism (Jost et al., 2003; Roets & Van Hiel, 2011a).

Furthermore, NFC shows a remarkable conceptual fit with the motivated cognitive style characteristics which Allport (1954) described as “the prejudiced personality” and several studies have indeed demonstrated that NFC is strongly related to various forms of prejudice, including gender-based, racial, and anti-immigrant prejudice (e.g., Cunningham, Nezlek, & Banaji, 2004; Roets, Van Hiel, & Dhont, 2012; Van Hiel, Pandelaere, & Duriez, 2004). In addition, scholars have also demonstrated that the effects of NFC on anti-immigrant prejudice are mediated by the endorsement of authoritarian views (e.g., Van Hiel et al., 2004). In sum, previous research indicates that the general motivated cognitive style captured by

NFC is an important driving factor for embracing social-ideological attitudes and beliefs like authoritarianism, which in turn, account for anti-immigrant prejudice (see Roets & Van Hiel, 2011a). Moreover, compared to other cognitive-style variables, NFC has been found to show the strongest relationships with authoritarianism and prejudice (Cornelis & Van Hiel, 2006).

1.3. The current study

We aimed to extend Duriez and Soenens' (2009) basic mediation model of the intergenerational transmission of authoritarianism and ethnic prejudice by including parents' and children's levels of NFC in a broader model (see Figure 1). To the best of our knowledge, the intergenerational similarity in NFC has not yet been investigated. However, a significant relationship between the NFC of parents and children can be expected because motivated cognitive style characteristics are likely to develop under influence of genetic factors, as well as by children observing and modeling their parents. Moreover, previous studies have demonstrated that a variety of parental cognitive and personality-related features, such as negative cognitive styles related to depression, attributional styles and information processing biases, are transmitted from one generation to the next (e.g., Alloy et al., 2001; Brenning, Soenens, Braet, & Bosmans, 2011; Garber & Flynn, 2001). We therefore expected to find evidence for an intergenerational similarity in NFC as well.

Furthermore, we hypothesized that parental NFC would be indirectly related to child prejudice and child authoritarianism in two ways. Firstly, based on the findings that NFC underlies authoritarianism and ethnic prejudice, and the observed intergenerational similarity in authoritarianism and anti-immigrant prejudice, we hypothesized that parental NFC would be indirectly related to child authoritarianism and child anti-immigrant prejudice via parental levels of authoritarianism and parental anti-immigrant prejudice. This first pathway thus directly proceeds through the process of intergenerational similarity in authoritarianism and prejudice.

Secondly, as a consequence of the assumed intergenerational similarity in NFC, we hypothesized that parental NFC would also be indirectly related to child authoritarianism and child prejudice through children's levels of NFC. This second way thus 'bypasses' parental authoritarianism and anti-immigrant prejudice through the intergenerational similarity in NFC. Demonstrating such relationships would support the idea that parents may partially lay the foundations for their children to develop authoritarian and prejudiced attitudes through the transmission of general cognitive style characteristic.

2. Method

2.1. Participants

One-hundred-sixty-nine high-school and undergraduate university students (53% female, $M_{\text{age}} = 18.48$, $SD_{\text{age}} = 2.52$) were recruited in secondary schools and a university in the Dutch-speaking region of Belgium. In addition, each respondent asked one of his/her parents to participate in the study. Only students and parents without migration background, were invited to participate. The non-immigrant status of our participants was double-checked by directly asking respondents' nationality and religion. Most participating parents were mothers (72%). The mean age in the sample of parents was 48.38 years ($SD = 4.29$), and 65% had completed higher education, whereas 35% had completed their education at the age of 18 or younger.

2.2. Materials

Parents and students completed identical measures of NFC, authoritarianism, and prejudice toward immigrants. NFC was measured with Roets and Van Hiel's (2011b) short NFC-scale which includes 15 items rated on a 6-point Likert scale (1 = Strongly disagree; 6 =

Strongly agree). A sample item is 'I dislike questions that could be answered in many different ways'. Cronbach alphas were .87 for the parents and .88 for the children.

To measure authoritarianism, respondents completed an 11-item Right-Wing Authoritarianism (RWA) scale (Altemeyer, 1981) on 5-point Likert scales (1 = Strongly disagree; 5 = Strongly agree). A sample item is 'Obedience and respect for authority are the most important virtues children should learn'. This version of the scale has been successfully used in several previous studies conducted in Flanders (e.g., Dhont & Van Hiel, 2009) and had a satisfactory reliability for both parents and children, Cronbach alphas = .81 and .82, respectively.

Finally, respondents' level of prejudice toward immigrants was measured with an 8-item subtle racism scale (Pettigrew & Meertens, 1995) using a 7-point Likert scale (1 = Strongly disagree; 7 = Strongly agree). A sample item is 'I admire the immigrant community who live here under difficult circumstances' (reverse scored). The scale proved to be reliable, Cronbach alphas = .83 and .87, respectively.

2.3. Procedure

Participants were recruited by research assistants during class hours. Each participant received two questionnaires; one to be completed by him or herself and one by one of his or her parents. The questionnaires were accompanied by a letter of informed consent explaining the survey procedure and the participants' rights. The study was introduced as an investigation of attitudes and beliefs about societal topics. Participants were instructed to complete the questionnaire individually at home and were requested not to communicate with their parent/child about the content of the questionnaire. To ensure confidentiality of the answers, the questionnaires were returned to the research assistant in separate, sealed envelopes. Envelopes of parents and students were matched by confidential, unique codes. A

total of 175 packages of envelopes were collected. Data of six parent-student dyads were excluded because one of the questionnaires was not adequately completed.

3. Results

3.1. Preliminary analyses

Table 1 presents the descriptive statistics for all variables, as well as their correlations. The correlations confirmed that, besides the intergenerational similarity in authoritarianism and prejudice, parents and children also show a significant correspondence in their levels of NFC. Also as expected, all within-generation correlations between the variables were significant and positive.

3.2. Basic mediation model of the intergenerational similarity in authoritarianism and prejudice

We first aimed to replicate the mediation model of the intergenerational similarity in authoritarianism and prejudice (Duriez & Soenens, 2009). Therefore, we tested a path model using Lisrel in which parental authoritarianism was entered as the predictor variable, followed by child authoritarianism and parental prejudice as mediators, while child prejudice was included as the criterion variable. All possible paths were estimated. Figure 2 displays the standardized estimates of the significant relationships. Consistent with Duriez and Soenens (2009), parental authoritarianism was significantly related to parental prejudice and child authoritarianism, whereas these latter two variables were significantly related to child prejudice.

We then estimated the simultaneous, specific indirect effects of parental authoritarianism on child prejudice via parental prejudice and child authoritarianism (mean estimates across 5000 bootstrap samples) by conducting a mediation analysis for multiple

mediators (based on Hayes, 2012) and calculated 95% bias-corrected bootstrap confidence intervals (Preacher & Hayes, 2008). This analysis confirmed that the indirect effect of parental authoritarianism on child prejudice was simultaneously mediated by parental prejudice ($b = .16$, $SE = .06$, $CI_{95\%} = [.07, .30]$) and child authoritarianism ($b = .43$, $SE = .07$, $CI_{95\%} = [.31, .60]$).

Supplementary regression analyses showed that the parent's gender was not significantly related to any of the variables, all $ps > .65$, and did not significantly moderate the relationships, all $ps > .14$, with the exception of one marginally significant interaction between the parent's gender and parental authoritarianism on parental prejudice, $\beta = .14$, $p = .06$. A slightly stronger relationship between parental authoritarianism and prejudice was obtained for fathers, $\beta = .56$, $p < .001$, than for mothers, $\beta = .44$, $p < .001$.

3.3. Mediation model of the intergenerational similarity in need for closure, authoritarianism, and prejudice

In a second model, we added parental and child NFC to test our main hypotheses regarding the role of NFC. As such, a model was tested with parental NFC as the predictor variable, followed by child NFC and parental authoritarianism as the first two mediating variables, and then by child authoritarianism and parental prejudice as the second pair of mediators, while child prejudice was included as the criterion variable. Again, we estimated all possible paths between the variables. Figure 3 depicts the standardized estimates of the significant paths.

All significant paths obtained in our previous model remained significant in this second model. Additionally, parental NFC was significantly and directly related to parental authoritarianism and child NFC, and child NFC was significantly and directly related to child authoritarianism. Furthermore, parental NFC had a direct effect on parental prejudice and also

child NFC had a direct effect on child prejudice. The semi-partial correlations of each predictor or mediator with child prejudice, while controlling for the four other variables, are presented in the last column of Table 1. Again, regression analyses revealed that the parent's gender did not significantly relate to any of the variables and did not moderate the effects of NFC, all $ps > .15$.

Next, we estimated the specific indirect effects (Hayes, 2012) of parental NFC on child prejudice via the four mediators, resulting in five possible pathways: a) through child NFC, b) through child NFC and child authoritarianism, c) through parental authoritarianism and child authoritarianism, d) through parental authoritarianism and parental prejudice, and e) through parental prejudice. The first two pathways thus rely on the direct intergenerational similarity of NFC, whereas the other three pathways rely on the intergenerational similarity of authoritarianism and/or prejudice. As shown in Table 2, parental NFC had a significant indirect effect on child prejudice through all five pathways.

Finally, we tested several alternative models which, however, failed to yield convincing mediation patterns. More specifically, modelling parental and child NFC as mediators of the effects of parental and child authoritarianism on child prejudice, yielded a non-significant, $b = .03$, $SE = .07$, $CI_{95\%} = [-.10, .16]$, and a marginally significant simple mediation effect, $b = .15$, $SE = .08$, $CI_{95\%} = [-.01, .32]$, respectively, and was thus clearly less plausible than the predicted mediation patterns with parental and child authoritarianism as mediators of the effects of parental and child NFC, with simple mediation effects of $b = .21$, $SE = .07$, $CI_{95\%} = [.08, .36]$ and $b = .43$, $SE = .07$, $CI_{95\%} = [.29, .58]$, respectively. Also more complex alternative models in which the position of authoritarianism and NFC were switched did not yield much empirical support, with all indirect effects, $bs < .07$, or only reaching marginal significance levels.

4. Discussion

The current study focused on the intergenerational similarity in motivated cognitive style, reflected in dispositional NFC. We aimed to demonstrate that the similarity between parents and children in NFC accounts for a significant portion of the intergenerational similarity in authoritarianism and anti-immigrant prejudice.

Consistent with previous research (e.g., Duriez et al., 2008; Rodríguez-García, & Wagner, 2009), the results revealed that parents and children show a significant concordance in authoritarianism and anti-immigrant prejudice. More importantly, parents and children also showed a significant concordance in their levels of NFC, which supports the assumption that parents pass their motivated cognitive style characteristics to their offspring. Furthermore, parental NFC was indirectly related to child authoritarianism and anti-immigrant prejudice through the intergenerational similarity in authoritarianism and anti-immigrant prejudice but also through the direct intergenerational similarity in NFC. In other words, a substantial part of the relationship between parental NFC and child anti-immigrant prejudice proceeded via child's NFC, as such 'bypassing' parental ideology and parental anti-immigrant prejudice.

This finding adds to our understanding of the socializing role of parents in the acquisition of authoritarianism and anti-immigrant prejudice of their children. Indeed, various scholars (e.g., Allport, 1954; Katz, 2003) have typically emphasized the role of children's simple observation and imitation of parental expressions of these attitudes, or the reinforcement of attitudes that parents approve themselves. According to this approach, intergenerational similarity in ideological and intergroup attitudes results from successful parental socialization through explicit and implicit parental expressions of their own attitudes or closely related variables like personal values.

However, studies in the domain of social cognition have provided empirical evidence for the basic role of individual differences in motivated cognition, and particularly NFC, in

the development and perseverance of personal values, beliefs, and social attitudes (e.g., Calogero, Bardi, & Sutton, 2009; Van Hiel et al., 2004). Socialization theories did not consider the possibility that parents and children may also resemble each other in their general cognitive style giving rise to ideological and intergroup attitudes. The current research is a first contribution to fill this gap by revealing that a significant portion of the intergenerational similarity of authoritarianism and prejudice has its roots in the parent-child similarity in NFC. In other words, our findings suggest that, even when parents with a high NFC would try, and succeed, to suppress communication of their ideological views or outgroup attitudes, their children may still be prone to have higher levels of authoritarianism and anti-immigrant prejudice. Indeed, because of the sheer transmission of NFC, children of high NFC parents are likely to adopt a similar cognitive style, which may increase their authoritarian and anti-immigrant attitudes.

However, at this point, drawing explicit causal inferences is not warranted due to the use of cross-sectional data. Longitudinal research is needed to shed light on the causal influence of the socializing role of parents on children's motivated cognition and its relationship with authoritarianism and prejudice. Such studies may also try to recruit a more heterogeneous sample in terms of parent's gender, education, and cultural background, to confirm the generalizability of the present findings.

From a theoretical viewpoint, future studies may further clarify the processes involved in the intergenerational similarity in NFC. Parental promotion of general goals and a general resistance to change is a plausible mediator in the transmission of NFC. Furthermore, it remains to be shown to what degree the intergenerational similarity in NFC can also account for the intergenerational similarity in social dominance orientation (Duriez & Soenens, 2009) and expressions of prejudice other than anti-immigrant prejudice. Nevertheless, given that

NFC has been shown to be related to social dominance orientation and other forms of prejudice as well (Roets & Van Hiel, 2011a), the intergenerational similarity of NFC likely plays a fundamental role for those variables as well.

Finally, future research could integrate the present intergenerational framework within the intergroup contact theory. This theory holds that positive contact with outgroup members under conditions of equal status, cooperation, common goals, and institutional support successfully reduces prejudice (Allport, 1954; Hewstone & Swart, 2011). Compelling evidence for this theory has been produced by Pettigrew and Tropp's (2006) meta-analysis. Furthermore, positive intergroup contact has been demonstrated to be especially effective to reduce prejudice among high NFC individuals (Dhont, Roets, & Van Hiel, 2011) and high authoritarians (e.g., Dhont & Van Hiel, 2009; Hodson, 2011).

Recently, it has been suggested that people's personal contact experiences with outgroup members may be a superior determinant of their outgroup attitudes compared to parental influence (Dhont & Van Hiel, 2012; Rodríguez-García & Wagner, 2009). In particular, Dhont and Van Hiel (2012) found a strong positive relationship between parental and adolescents' racial prejudice levels for adolescents with low levels of intergroup contact. This relationship was, however, non-significant for adolescents with high levels of intergroup contact, which indicates that positive intergroup contact may buffer against the influence of parental prejudice. Therefore, future research may further illuminate the potency of intergroup contact to buffer against the direct and indirect influence of parental NFC and authoritarianism on child prejudice.

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Table Captions

Table 1. Means, standard deviations, and correlations among the variables

Table 2. Indirect effects of parental need for closure on child prejudice through five mediating pathways

Figure Captions

Figure 1. Theoretical model presenting the intergenerational similarity in need for closure, authoritarianism, and anti-immigrant prejudice.

Figure 2. Results of the path analysis testing the mediation model of the intergenerational similarity in authoritarianism and anti-immigrant prejudice.

Note. Only significant standardized path coefficients are shown. * $p < .05$; ** $p < .01$; *** $p < .001$. The direct path from parental authoritarianism to child prejudice and the relationship between child authoritarianism and parental prejudice were not significant ($\beta = -.08, p > .28$ and $r = -.05, p > .40$, respectively).

Figure 3. Results of the path analysis testing the mediation model of the intergenerational similarity in need for closure, authoritarianism, and prejudice.

Note. Significant standardized path coefficients are shown. * $p < .05$; ** $p < .01$; *** $p < .001$. The direct paths from parental NFC to child authoritarianism and to child prejudice as well as the path from parental authoritarianism to child prejudice, the path from child NFC to parental prejudice, and the relationship between child authoritarianism and parental prejudice were not significant ($\beta = -.10, p > .15$; $\beta = -.07, p > .30$; $\beta = -.06, p > .40$; $\beta = -.08, p > .26$; r

= $-.02$, $p > .60$, respectively). The relationship between parental authoritarianism and child need for closure was significantly positive ($r = .17$, $p < .01$).

Table 1.

	Mean	SD	1	2	3	4	5	<i>sr</i>
1. Need for closure - Parent	3.94	0.73						-.06
2. Need for closure - Child	3.66	0.76	.34 ^{***}					.13 [*]
3. Authoritarianism – Parent	3.00	0.68	.51 ^{***}	.35 ^{***}				-.05
4. Authoritarianism – Child	2.74	0.66	.25 ^{***}	.62 ^{***}	.47 ^{***}			.38 ^{***}
5. Prejudice – Parent	4.30	0.94	.46 ^{***}	.15 [†]	.48 ^{***}	.18 [*]		.20 ^{***}
6. Prejudice - Child	4.00	1.01	.20 ^{**}	.48 ^{***}	.32 ^{***}	.62 ^{***}	.30 ^{***}	

Note. [†] $p < .06$; ^{*} $p < .05$; ^{**} $p < .01$; ^{***} $p < .001$; *sr*-values are the semi-partial correlations for each predictor or mediator with child prejudice, while controlling for the four other variables.

Table 2.

Mediator(s)	<i>b</i>	<i>SE</i>	CI _{95%}
a. Child need for closure	.08	.04	.01/.18
b. Child need for closure → Child authoritarianism	.13	.04	.06/.24
c. Parental authoritarianism → Child authoritarianism	.12	.03	.07/.21
d. Parental authoritarianism → Parental prejudice	.06	.03	.02/.13
e. Parental prejudice	.10	.04	.04/.20

Note: presented values are mean estimates across 5000 bootstrap samples and 95% bias-corrected bootstrap confidence intervals

Figure 1.

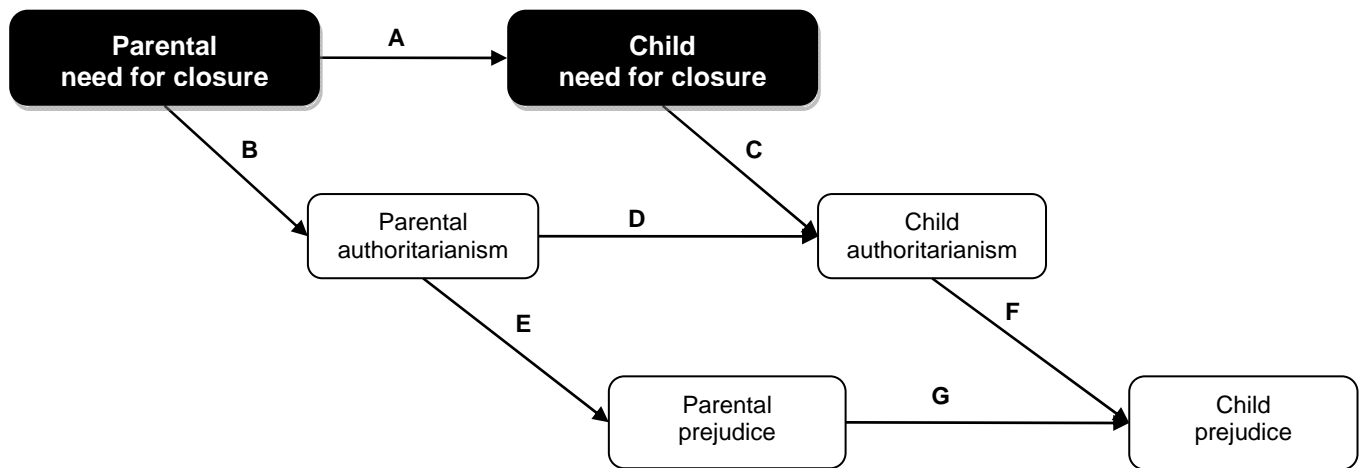


Figure 2.

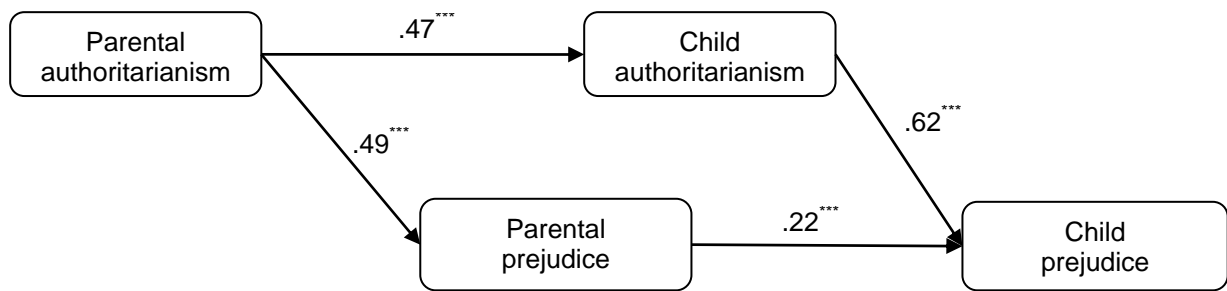


Figure 3.

