

## PSYRGGU 2020

### Psychology of Personality: Real and Virtual Context

# NEUROTICISM AND PARENTAL CONTROL: THE ACTOR-PARTNER INTERDEPENDENCE MODEL

Marina S. Egorova (a), Oksana V. Parshikova (b), Irina E. Rzhanova (c)\*, Olga V. Mitina (d)

\*Corresponding author

(a) Lomonosov Moscow State University, Moscow, Russia

(b) Lomonosov Moscow State University, Moscow, Russia

(c) FGBNU "Psychological Institute of Russian Academy of Education", Mokhovaya str., 9-4, 125009 Moscow, Russia, irinarzhanova@mail.ru

(d) Lomonosov Moscow State University, Moscow, Russia

### *Abstract*

The Actor-Partner Interdependence Model was applied in an investigation of the relationship between neuroticism and one of the main indicators of parent-child relationships: the degree of parental control. From a theoretical viewpoint, the model is a method of social comparison, as it uses both self-assessment and mutual assessment between dyad members; it accounts for the covariation of the dyad's members' diverse characteristics; it allows to determine causal links; finally, it accounts for intra- and interdyadic variability. As a result, it is possible to evaluate the role of dyadic relationships in shaping the dyadic relationship itself and members' individual traits with higher accuracy. The study's participants included 316 two-parent, two-child families (a total of 1264 people), which completed questionnaires aimed at assessing personality and parent-child relationship traits. The indicators reviewed in this study include the parents' and the children's neuroticism scores, parental assessment of the degree and methods of control exercised with respect to the older and the younger sibling; and Parental Negative Control scores as assessed by the older and the younger sibling. We demonstrated that the self-assessment of parental control influences the children's assessment of control (actor- and partner-effects). The parents' neuroticism had no effect on their controlling behavior (no correlation either with the parental self-assessment of control nor with the siblings' assessment). The neuroticism both in the older and the younger siblings defines their perception of the parents' controlling behavior (actor-effects).

2357-1330 © 2020 Published by European Publisher.

**Keywords:** Actor-Partner Interdependence Model, neuroticism, parent-child relations.



This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 Unported License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

## 1. Introduction

The Actor-Partner Interdependence Model finds application in analyses of the correlation between a number of diverse attributes, most frequently psychological (such as personality traits), relating to lifestyle (for instance, the tendency toward one or another activity during spare time), or to social and economic conditions (such as financial standing, career success). In contrast to correlational analysis, which can isolate groups of correlated attributes, the Actor-Partner Interdependence Model 1) takes into account not individual respondents, but, rather, dyads; 2) accounts not only for the correlations between the investigated attributes in the same person, but also for the mutual influence between dyad members: in other words, the model accounts both for intra- and interdyadic variability; 3) allows to determine not only correlations, but also causality or determinants (Cook & Kenny, 2005; Kashy & Kenny, 2000).

One of the merits of the Actor-Partner Interdependence Model is that its approach of addressing dyads and investigating interaction between members presents an opportunity to focus on the sources of psychological trait variability that are traditionally ignored. The model is noteworthy not only for being an appropriate means of assessment of interactions in a dyad, but, first and foremost, for the opportunity it presents for testing theoretical assumptions about the ongoing process of the genesis of psychological traits in real-life dyads (teacher – student, parent – child, spouses, siblings, friends). It is also important to note that correlations traditionally studied on an individual level (for instance, between personality traits) can stem not only from an individual structure of traits, but be a consequence of interpersonal relations. This is a defining feature of the Model.

## 2. Problem Statement

Despite a large number of studies demonstrating the association between emotional instability and negative emotionality and spousal and parent-child relationships (Chiaying & Kendall, 2014; Gere et al., 2012; O'Connor & Dvorak, 2001; Parker et al., 1978, Parker, 1979; Reti et al., 2002; Weiss & Schwarz, 1996), the nature of the cause-and-effect relationship between emotional instability and family relationship strategy remains unexplained.

On the one hand, factor level personality traits such as neuroticism, which we had investigated in our study, are characterized by ontogenetic stability and define an individual's disposition and behavior in a wide range of situations. On the other hand, an individual's behavior is defined on the behavior of his or her partner's in an interaction, and can be defined by the partner's personality traits, habits, and expectations (e.g. Bell & Harper, 1977; Curran, 2018; Dalteg et al, 2016; Norona et al., 2016). The tighter the contact and the larger the emotional involvement in the relationship, the more prominent the influence of the other member in an interaction. For families, this might hold true to the largest degree possible.

In order to analyze the direction of the correlations between neuroticism, which is a stable personality trait, and parent-child relationships (parental control), we used The Actor-Partner Interdependence Model. This model was selected due to it accounting not only for the correlations between the studied traits in one individual, but also for the mutual influence between dyad members, and for the fact that it allows to determine not only the correlations, but also the causality or the determinants (Cook & Kenny, 2005; Kashy & Kenny, 2000).

### **3. Research Questions**

This study uses the Actor-Partner Interdependence Model to address a number of questions:

- 3.1.** Examination of the similarity or lack thereof (using Control as an example) of the parents' and children's assessment of the parent-child relationship in the family.
- 3.2.** An analysis of the influence of parental neuroticism on the style of the parent-child relationship (Control) and the perception of it by adolescents.
- 3.3.** An analysis of the influence of adolescents' neuroticism on the style of the parent-child relationship (Control) and the perception of it by the adolescents.

### **4. Purpose of the Study**

The purpose of the study is to analyze the correlation between parental neuroticism, children's neuroticism, and the parent-child relationship, while accounting simultaneously for the intra- and interdyadic variability, as provided for by the Actor-Partner Interdependence Model.

### **5. Research Methods**

#### **5.1. Participants**

316 two-parent, two-child families took part in the study (a total of 1264 persons). The average age of the mothers was 43.07 (SD=4.21), while the average age of the fathers was 45.52 (SD=5.20). The siblings aged in range from 12 to 23 years old. The average age of the older sibling was 18.04 (SD=2.27), and the average age of the younger sibling was 15.36 (SD=1.50). The difference in age between siblings in the same family did not exceed 5 years.

#### **5.2. Methods**

Parents' and children's neuroticism score was assessed with the help of Eysenck's EPI questionnaire adapted for Russian sample (Rusalov, 1992), which included 57 questions such as "Do your moods go up and down?", "Do ideas run through your head so that you cannot sleep?", and "Do you get attacks of shaking or trembling?"

The expression of Control was assessed with the help of the Parent-Child Relationship Questionnaire (Markovskaya, 2006). The questionnaire has two versions, one for the parents of adolescents, which assesses 5 factors of the parent-child relationship (Parental Positive Relations with Child, Control, Leniency, Inconsistency and Confidence), and one for the adolescents, assessing 3 factors of the parent-child relationship (Parental Positive Relations with Child, Parental Negative Control and Parental Democracy).

This study examines the following questionnaire measures: Control, as assessed using the parental version of the questionnaire, and Parental Negative Control, as assessed using the teenager version of the questionnaire.

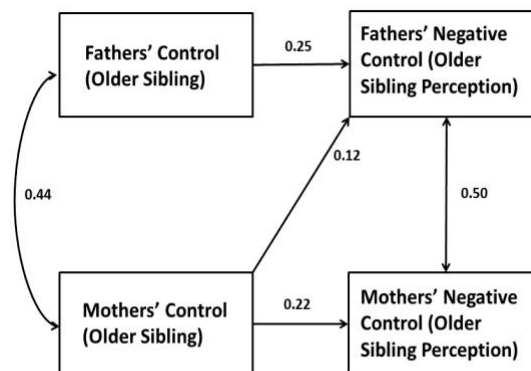
Path analysis was used to construct the models. All calculations were done in EQS 6.3.

## 6. Findings

Descriptive analysis of the data (distribution, comparison of the means, gender and age differences) and the results of correlational analysis (between family members and between neuroticism scores and parental control scores) match our expectations and enable the use of the Actor-Partner Interdependence Model for data analysis.

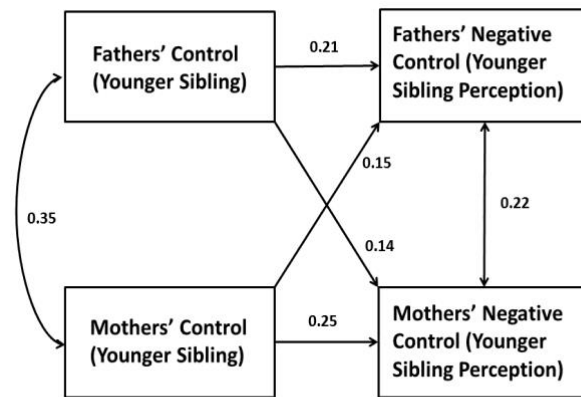
### 6.1. Analyzing the correlation between parental control and siblings' perception of parental control

Model 1 (see Figure 1) contains parental self-assessment of controlling behavior and its correlation to the older siblings' perception of negative control by mother and father. The individual parents' assessment of Control significantly correlates with each other (.44). The older siblings see similarity between Parental Negative Control by mother and father (.50). Parental assessment of Control influences siblings' perception of Parental Negative Control. Mothers show actor- and partner-effects, while fathers display only actor-effects. Thus, the mother influences the assessment by the older sibling of her own and the father's controlling behavior.



**Figure 01.** Illustration of relationships between parental and older sibling evaluations of parental control ( $\chi^2(1)=2.395$ , CFI=0.994, RMSEA=0.067)

Model 2 (Figure 2) includes the same characteristics, the difference being that in this case, controlling behavior is being assessed not by the older, but by the younger siblings. The younger sibling views the similarity between the mother's and the father's controlling behavior as lower (.22), while the influence of the father's and the mother's control on the younger sibling's perception of parental control forms dyadic pattern, i.e. both mother and father display actor- and partner-effects.



**Figure 02.** Illustration of relationships between parental and younger sibling evaluations of parental control ( $\chi^2(0)=0$ , just identified model)

## 6.2. Parents' neuroticism and assessment of control by parents and adolescents

None of the models uncovered an impact of parental neuroticism on the controlling components of the parent-child relationship. Neither Control indicators as assessed by parents, nor Parental Negative Control scores as assessed by the children were shown to be correlated with parental neuroticism.

## 6.3. Siblings' neuroticism and Control as assessed by parents

The neuroticism of the older sibling influences only the father's Control (a weak positive correlation, actor-effect) (Model 3,  $\chi^2(3)=2.975$ , CFI=1.0, RMSEA=0.0). There is no correlation between the younger sibling's neuroticism and the father's Control. At the same time, the assessment of the father's Control by the older and younger siblings is similar ( $\beta=.612$ ). Siblings' neuroticism does not show an influence on the mother's controlling behavior.

## 6.4. Siblings' neuroticism and Parental Negative Control according to their own assessment

Siblings' assessment of Parental Negative Control shows a low yet significant correlation:  $\beta=.215$  for maternal control and  $\beta=.247$  for paternal control. The neuroticism of both the older and the younger sibling has a positive influence on their perception of paternal Negative Control (Model 4,  $\chi^2(2)=0.41$ , CFI=1.0, RMSEA=0.0) and maternal Negative Control (Model 5,  $\chi^2(2)=0.854$ , CFI=1.0, RMSEA=0.0). Only actor-effects were observed in all cases.

## 7. Conclusion

An intrafamilial analysis of neuroticism and the parent-child relationship was conducted, allowing to assess inter- and intradyadic variability.

We discovered similarities between the fathers' and the mothers' controlling behavior and their influence on the siblings' perception of parental control in their family. Older siblings show more similarity in their assessments of parental Control than younger siblings, which can be attributed either to the

difference between the father's involvement in interaction with the older and the younger child, or else with a differing style of the parent-child relationship with the older and the younger child as exercised by both parents.

The use of the Actor-Partner Interdependence Model demonstrated that the parental assessment of Control affects the siblings' assessment of Parental Negative control, with both actor- and partner-effects observed. In other words, the perception by the child of the Control as exercised by each of the parents is shaped both by the mother and the father.

The parents' neuroticism does not affect their self-assessment of Control and the perception of Parental Negative Control by the older and the younger sibling. In other words, a lower emotional stability on the part of the parents does not lead to a desire to decrease the children's autonomy and to lower the uncertainty associated with it.

The children's neuroticism affects their perception of the parents' controlling behavior, displaying only actor-effects; i.e., the neuroticism of each sibling is correlated only with his or her perception of parental control, but does not affect the perception of the second child.

## Acknowledgments

### Funding

The study was supported by the Russian Foundation for Basic Research, project 19-013-00274 "Spouse, child-parent and sibling relationships: An actor-partner interdependence model".

## References

- Bell, R. Q., & Harper, L. V. (1977). *Child Effects on Adults*. Erlbaum Associates.
- Chiaying, W., & Kendall P.C. (2014). Child Perceived Parenting Behavior: Childhood Anxiety and Related Symptoms. *Child and Family Behavior Therapy*, 36(1), 1-18. <https://doi.org/10.1080/07317107.2014.878175>
- Cook, W. L., & Kenny, D. A. (2005). The Actor-Partner Interdependence Model: A model of bidirectional effects in developmental studies. *International Journal of Behavioral Development*, 29(2), 101-109. <https://doi.org/10.1080/01650250444000405>
- Curran, T. (2018). An actor-partner interdependence analysis of cognitive flexibility and indicators of social adjustment among mother-child dyads. *Personality and Individual Differences*, 126, 99-103. <https://doi.org/10.1016/j.paid.2018.01.025>
- Dalteg, T., Benzein, E., Sandgren, A., Malm, D., & Årestedt, K. (2016). Associations of Emotional Distress and Perceived Health in Persons With Atrial Fibrillation and Their Partners Using the Actor-Partner Interdependence Model. *Journal of Family Nursing*, 22(3), 368-391. <https://doi.org/10.1177/1074840716656815>
- Gere, M. K., Villabo, M. A., Torgersen, S., & Kendall, P. C. (2012). Overprotective parenting and child anxiety: the role of co-occurring child behavior problems. *Journal of Anxiety Disorder*, 26(6), 642-649. <https://doi.org/10.1016/j.janxdis.2012.04.003>
- Kashy, D. A., & Kenny, D. A. (2000). The analysis of data from dyads and groups. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 451-477). Cambridge University Press.
- Markovskaya, I. M. (2006). *Trening vzaimodejstviya roditelej s det'mi* [Parent-child interaction training]. Rech.
- Norona, J. C., Roberson, P. N. E., & Welsh, D. P. (2016). Rejection sensitivity and depressive symptoms: Longitudinal actor-partner effects in adolescent romantic relationships. *Journal of Adolescence*, 51, 6-18. <https://doi.org/10.1016/j.adolescence.2016.05.007>

- O'Connor, B. P., & Dvorak, T. (2001). Conditional associations between parental behavior and adolescent problems: A search for personality environment interactions. *Journal of Research in Personality*, 35, 1-26. <https://doi.org/10.1006/jrpe.2000.2295>
- Parker, G., Tupling, H., & Brown L. B. (1978). A parental bonding instrument. *British Journal of Medical Psychology*, 52, 1–10. <https://doi.org/10.1111/j.2044-8341.1979.tb02487.x>
- Parker, G. (1979). Parental characteristics in relation to depressive disorders. *British Journal of Psychiatry*, 134, 138–147. <https://doi.org/10.1192/bjp.134.2.138>
- Reti, I. M., Samuels, J. F., Eaton, W. W., Bienvenu, O. J., Costa, P. T., & Nestadt, G. (2002). Influences of parenting on normal personality traits. *Psychiatry Research*, 111(1), 55-64. [https://doi.org/10.1016/s0165-1781\(02\)00128-2](https://doi.org/10.1016/s0165-1781(02)00128-2)
- Rusalov, V. M. (1992) *Modificirovannyj lichnostnyj oprosnik Eysencka* [Eysenck's Modified Personality Questionnaire]. Smysl.
- Weiss, L. H., & Schwarz, J. C. (1996). The relationship between parenting types and older adolescents' personality, academic achievement, adjustment, and substance use. *Child Development*, 67(5), 2101-2114. <https://doi.org/10.1111/j.1467-8624.1996.tb01846.x>