

Van IJzendoorn, M.H., Bakermans-Kranenburg, M.J. & Mesman, J. (2008). Dopamine system genes associated with parenting in the context of daily hassles. *Genes, Brain and Behavior*, 7, 403-410.

**Abstract**

The current study examined the molecular genetic foundations of sensitive parenting in humans and is the first to test the interaction between genes and environment in modulating parental sensitive responses to children. In a community sample of 176 Caucasian, middle class mothers with their 23-month-old toddlers at risk for externalizing behavior problems, the association between daily hassles and sensitive parenting was investigated. We tested whether two dopamine-related genes, dopamine D4 receptor (DRD4) and catechol-O-methyltransferase (COMT) gene polymorphisms, modulate parents' vulnerability to the negative influence of daily hassles on sensitive parenting behavior to their offspring. Sensitive parenting was observed in structured settings, and parents reported on their daily hassles through a standard questionnaire. In parents with the combination of genes leading to the least efficient dopaminergic system functioning (COMT val/val or val/met, DRD4-7Repeat), more daily hassles were associated with less sensitive parenting, and lower levels of daily hassles were associated with more sensitive parenting. The other combinations of COMT and DRD4 polymorphisms did not show significant associations between daily hassles and maternal sensitivity, suggesting differential susceptibility to hassles depending on parents' dopaminergic system genes. It is concluded that the study of (multiple) gene-environment interactions (in the current case: gene by gene by environment interaction, G x G x E) may explain why some parents are more and others less impacted by daily stresses in responding sensitively to their offspring's signals.

[Full text](#)

Erez, A., Mikulincer, M., Van IJzendoorn, M.H. & Kroonenberg, P.M. (2008). Attachment, personality, and volunteering: Placing volunteerism in an attachment-theoretical framework. *Personal and Individual Differences*, 44, 64-74.

**Abstract**

Recent studies have emphasized the negative impact of attachment insecurities for prosocial behavior. We examined the unique contribution of attachment insecurities to volunteerism and motives for volunteering beyond the explanatory power of high-order personality traits and assessed the potential roles of motives for volunteering in mediating and moderating the links between attachment insecurities and volunteering. One-hundred fifty-nine Dutch undergraduates completed scales tapping attachment insecurities, engagement in volunteer activities, motives for volunteering, and high-order personality traits. Findings show that attachment insecurities made a unique contribution to volunteerism beyond the explanatory power of personality traits. In addition, self-focused motives for volunteering were found to moderate the link between anxious attachment and volunteering behavior. The discussion focused on the psychological mechanisms by which attachment insecurities affect volunteerism.

Zegers, M.A.M., Schuengel, C., Van IJzendoorn, M.H. & Janssens, J.M.A.M. (2008). Attachment and problem behavior of adolescents during residential treatment. *Attachment and Human Development* 10, pp. 91-103.

**Abstract**

Attachment theory suggests that representations of previous attachment experiences may explain differences in psychosocial functioning. However, the nature of the association in clinical populations is unclear. Attachment representations were classified on the basis of Adult Attachment Interviews with 61 adolescents (13–20 years old; 70% female) admitted to a residential treatment institution. Group care workers rated their problem behavior. Compared to dismissing and autonomous adolescents and adolescents unresolved/disorganized with respect to trauma, adolescents with preoccupied attachment representations showed the highest levels of truancy and rule breaking, according to the institution's records, and externalizing behaviour, according to the group care workers. Unresolved/disorganized adolescents displayed lower levels of violence to staff than dismissing and autonomous adolescents. The effectiveness of residential treatment might be enhanced by taking account of the attachment strategies with which adolescents enter institutions.

Stolk, M.N., Mesman, J., Van Zeijl, J., Alink, L.R.A., Bakermans-Kranenburg, M.J., Van IJzendoorn, M.H., Juffer, F. & Koot, H.M. (2008). Early parenting intervention: Family risk and first-time parenting related to intervention effectiveness. *Journal of Child and Family Studies*, 17, pp. 55-83.

**Abstract**

The effects of cumulative risk and parity on the effectiveness of a home based parenting intervention were tested in a randomized controlled trial with 237 families with 1- to 3-year-old children screened for high levels of externalizing behavior. The intervention was aimed at enhancing positive parenting and decreasing externalizing behaviors. The results showed that cumulative risk was not associated with either change in child externalizing behaviors or change in positive parenting. When intervention effectiveness was compared for primiparas (i.e., firsttime mothers) versus multiparas (i.e., mothers with more than one child), we found that intervention mothers of first-born children displayed an increase in their use of positive discipline strategies as compared to first-time mothers in the control group, whereas a similar effect for multiparas was absent. Among multiparas we found an intervention effect on sensitivity, with control group mothers showing an increase in sensitivity, whereas the intervention group showed a constant level of sensitivity over time. These results suggest that parity may be a moderator of intervention effectiveness. Implications for investigating moderators of intervention effectiveness are discussed.

Bakermans-Kranenburg, M.J., Van IJzendoorn, M.H., Pijlman, F.T.A., Mesman, J. & Juffer, F. (2008). Experimental evidence for differential susceptibility: Dopamine D4 receptor polymorphism (DRD4 VNTR) moderates intervention effects on toddlers' externalizing behavior in a randomized trial. *Developmental Psychology*, 44 (1), pp. 293-300.

**Abstract**

In a randomized controlled trial we tested the role of genetic differences in explaining variability in intervention effects on child externalizing behavior. One hundred fifty-seven families with 1- to 3-year-old children screened for their relatively high levels of externalizing behavior participated in a study implementing Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline (VIPP-SD), with six 1.5-hr intervention sessions focusing

on maternal sensitivity and discipline. A moderating role of the dopamine D4 receptor (DRD4) variable-number tandem repeat (VNTR) exon III polymorphism was found: VIPP-SD proved to be effective in decreasing externalizing behavior in children with the DRD4 7-repeat allele, a polymorphism that is associated with motivational and reward mechanisms and Attention Deficit Hyperactivity Disorder (ADHD) in children. VIPP-SD effects were largest in children with the DRD4 7-repeat allele whose parents showed the largest increase in the use of positive discipline. The findings of this first experimental test of (measured) gene by (observed) environment interaction in human development indicate that children may be differentially susceptible to intervention effects depending on genetic differences.

Gilissen, R., Bakermans-Kranenburg, M.J., Van IJzendoorn, M.H. & Van der Veer, R. (2008). Parent-child relationship, temperament, and physiological reactions to fear-inducing film clips: Further evidence for differential susceptibility. *Journal of Experimental Child Psychology*, 99, pp. 182-195.

### **Abstract**

Recent studies have supported the intriguing hypothesis that highly reactive infants are most susceptible to the effect of parenting. This study replicates and extends an earlier study on 4-year-olds concerning higher susceptibility of more fearful children to the quality of their relationships with their mothers, as shown by their physiological reactions to fear-inducing film clips. Two groups of children (4- and 7-year-olds) were shown the same fear-inducing and neutral film clips. During the film clips, their skin conductance and heart rate variability were measured. Both 4- and 7-year-olds responded to the fear-inducing film clips with increases in skin conductance and decreases in heart rate variability. A secure relationship affected the reactivity to fearful stimuli in temperamentally more fearful children but not in less fearful children irrespective of children's ages. Our findings add to the growing literature showing that children high in negative emotion are more susceptible to positive as well as negative rearing influences for better and for worse.