



# Predicting toddler temperamental approach-withdrawal: Contributions of early approach tendencies, parenting behavior, and contextual novelty <sup>☆</sup>



Mairin E. Augustine <sup>\*</sup>, Kameron J. Moding, Cynthia A. Stifter

Pennsylvania State University, United States

## ARTICLE INFO

### Article history:

Received 14 November 2015

Revised 17 March 2016

Accepted 11 May 2016

Available online 20 May 2016

### Keywords:

Temperament  
Approach-withdrawal  
Infancy  
Parenting  
Context

## ABSTRACT

Research suggests that temperamental approach-withdrawal is subject to parenting influences, but few studies have explored how specific parenting behaviors and contextual novelty contribute to the observed pattern of effects. The present study examined associations between infant temperamental approach, mother behavior while introducing novel objects (12 months) and temperamental approach-withdrawal in toddlerhood (18 months) in a sample of 132 infants (68 males). Maternal positive affect predicted more toddler approach-withdrawal for high-approach infants and maternal stimulation predicted less toddler approach-withdrawal for low-approach infants; however, these patterns varied with intensity of novelty in both parenting and toddler outcome contexts. Thus, maternal behavior may lead to stronger associations between earlier and later measures of approach-withdrawal; however, these effects are tied to contexts of measurement.

© 2016 Elsevier Inc. All rights reserved.

## 1. Introduction

Temperamental characteristics in infancy and childhood are believed to be a core basis for later personality development (Rothbart & Ahadi, 1994; Rothbart & Bates, 2006). Temperament, here defined as individual differences in reactivity and self-regulation, involves patterns of behavior and emotion that show relative consistency over time. One quality implicated throughout development is the tendency to approach or withdraw from novel stimuli. Researchers studying infants' responses to novel objects (Putnam & Stifter, 2002, 2005; Rothbart, 1988) have found that infants display increasing inhibition of approach to novelty in the second half of the first year of life. Specifically, infants' inhibition of approach (i.e., latency to reach or grasp) to high-intensity novel objects (i.e., objects involving high stimulation such as flashing lights, movement, or sounds) tends to increase over this time period, as does the amount of variation in responses across infants. In

addition, these individual differences in responses to novel objects have been related to later approach-withdrawal behaviors. For example, Putnam and Stifter (2005) showed that individual differences in latency to reach for novel objects at the end of the first year of life related to patterns of approach-withdrawal as well as positive and negative emotional responses to novelty in toddlerhood, indicating some consistency across the second year of life. It is important to consider, however, that these significant relations from infancy to toddlerhood were modest ( $r_s = 0.21-0.33$ ), suggesting that infants do not maintain an identical rank-order distribution from early to later measures of approach-withdrawal.

One potential explanation for this inconsistency is that early individual differences in temperamental approach to novel stimuli are better-reflected by other temporal responses. For example, the tendency to quickly approach novel stimuli is distinct from the tendency to also persist in exploring and engaging with novel stimuli. Active exploration of novel stimuli and environments is also thought to reflect greater approach tendencies (e.g., Rothbart & Ahadi, 1994), and exploration or manipulation of novel objects within reach is considered a separate marker of positive behavioral response in other observational measures of temperament (e.g., Goldsmith & Rothbart, 1999). Exploration may perhaps generate more instances of enjoyable interaction with stimuli in the environment over time, thus better maintaining approach motivation. Exploration thus appears to be an additionally valuable marker of

<sup>☆</sup> This study was supported by a grant from the National Institutes of Digestive Diseases and Kidney (DK081512) to the third author, and funding from the National Institute of Food and Agriculture, U.S. Department of Agriculture (award number 2011-67001-30117) to the second author.

<sup>\*</sup> Corresponding author at: Department of Human Development and Family Studies, 119 Health and Human Development Building, Pennsylvania State University, University Park, PA 16802, United States.

E-mail address: [mea184@psu.edu](mailto:mea184@psu.edu) (M.E. Augustine).

early temperamental approach to consider in relation to developmental outcomes.

Another explanation is that infants have the potential for change in their temperamental predispositions. Research in early personality suggests that stability coefficients tend to increase through early development, with relatively greater stability found after the preschool years (Neppel et al., 2010; Shiner & Caspi, 2003). Infants may thus evidence some changes in their developing expression of early temperamental approach-withdrawal based on early experiences. Environmental influences and temperament-by-environment interactions have often been implicated in models of temperament through development (see Kiff, Lengua, & Zalewski, 2011; Putnam, Sanson, & Rothbart, 2002; Rothbart & Bates, 2006). Parenting may be one major extrinsic contribution to this variation, due to either direct or temperament-specific influences.

First, parent behavior is found to have direct associations with infants' concurrent and later responses to novelty. Infants and children are found to make attempts to involve the parent in their interactions with novel objects (Mayes, Carter, & Stubbe, 1993), including objects intended to elicit fearful approach-withdrawal responses (Diener & Mangelsdorf, 1999). Because of this, the manner in which parents introduce infants to novel objects may be important to consider when understanding developing patterns of approach-withdrawal in infancy. Past research highlights parental sensitivity, positive affect, and stimulation as three major patterns of behavior relevant to this outcome.

High maternal sensitivity/non-intrusiveness in naturalistic parenting contexts has been found to relate to lower levels of child fear or withdrawal to novelty (Hane & Fox, 2006) and slower growth in fear reactivity in infancy (Braungart-Rieker, Hill-Soderland, & Karrass, 2010). Particular to parent-child interactions surrounding novel stimuli, Crockenberg and Leerkes (2004) showed that in a task in which 6-month-old infants were exposed to novel toys that were highly-stimulating and might easily elicit infant distress, mothers' putative regulatory behaviors (e.g., distraction, support while infant engaged with object) related to in-the-moment reductions in infant distress responses. Together these findings suggest that parents' ability to respond contingently and appropriately to infant cues surrounding novel stimuli could help infants to have more positive or engaged responses, but no study has examined longitudinal relations between maternal sensitivity in novel contexts and later approach-withdrawal responses.

Several studies have found that parents' positive affective displays when introducing novel objects related to their infants' and children's tendency to engage with these objects in the immediate or near future (Dubé, Rapee, Emerton, & Schniering, 2008; Gerull & Rapee, 2002; Gunnar & Stone, 1984; Hornik, Risenhoover, & Gunnar, 1987). However, it is not clear if displays of positive affect with novel stimuli relate to infants' patterns of behavior over greater periods of time.

There is also evidence that mothers' stimulating behaviors and attempts to engage their child with novel objects, such as demonstrating movement, sound, or tactile features of the object in order to facilitate interactions between the object and child, may influence subsequent child responses. Mothers appear to structure their behavior in specialized ways when introducing infants to novel objects (Brand, Baldwin, & Ashburn, 2002). Compared to behavior with adult partners, they put objects closer to infants, made larger movements, and displayed more enthusiastic, interactive, simplistic, and repetitive behavior. Joint engagement with novel objects has also been shown to relate to the tendency for the infant to then engage in solitary object play (Bakeman & Adamson, 1984). Maternal stimulating behavior thus appears to facilitate infant interest with novel objects, and in turn may increase approach behavior.

Secondly, beyond direct effects, these parenting behaviors may relate to approach-withdrawal in ways that vary with temperament-relevant child characteristics. Research examining the influence of parental sensitivity on infant temperamental approach-withdrawal based on early infant individual differences has produced more mixed findings than studies looking at direct effects of sensitivity (Fox, Henderson, Marshall, Nichols, & Ghera, 2005), but the effects may differ with the type of sensitivity measured. Some studies have found that sensitivity specifically in non-distressing tasks relates to less-inhibited behavior in later novel situations for children higher in temperamental inhibition (Early et al., 2002; Panella, Henderson, Hane, Ghera, & Fox, 2012). However, it is important to consider that these studies examined parenting in naturalistic contexts, not specific to novel objects or to situations designed to elicit individual differences in approach-withdrawal. Instead, researchers imply that maternal sensitivity to infants' distress or withdrawal reactions to novelty could predict stable or increased inhibition, as it may send an implicit message that withdrawal responses are acceptable (Degnan & Fox, 2007; Fox et al., 2005). Conversely, sensitivity for approach-oriented infants may involve reinforcing the tendency to approach novel stimuli. However, to our knowledge, no study has addressed this specific pattern of parental influence.

To date, no longitudinal research has examined temperament-specific associations between maternal positive affect displays and variations in temperamental approach-withdrawal. Positive affective influences may be particularly salient for more approach-oriented infants, as children with higher approach tendencies are thought to have greater sensitivity to reward cues (Carver, Avivi, & Laurenceau, 2008; Corr, 2004; Larsen & Augustine, 2008), and accordingly, greater susceptibility to reinforcing parent-child relationship qualities such as mutual positivity (e.g., Kochanska, Aksan, & Joy, 2007). Thus, positive affect may relate to even greater approach for these infants, whereas it may not have a meaningful influence on the behavior of low-approach infants.

Temperament-based influences of parents' tendencies to encourage infant interaction with novel objects through stimulation has also not received much attention in the literature. For infants higher in approach, stimulation may elicit approach tendencies by demonstrating more interesting aspects of the object, and thus serve to increase approach motivations over time. Similarly, it may encourage more approach to novelty for initially low-approach infants by intentionally fostering and guiding interactions between the infant and the novel object. However, researchers have highlighted a construct called maternal solicitude in studies of infant inhibition or withdrawal that might suggest opposite effects of stimulation for low-approach infants (e.g., Degnan, Henderson, Fox, & Rubin, 2008; Rubin, Cheah, & Fox, 2001; Rubin, Hastings, Stewart, Henderson, & Chen, 1997). Solicitude includes behaviors like facilitating, controlling, or spontaneously intervening by parents (Degnan et al., 2008; Rubin et al., 1997, 2001), which may create fewer opportunities for the child to practice self-controlled responding. The mother's control of the novel object in order to encourage child engagement may serve a function similar to solicitous behavior, in that it disrupts self-initiated attempts to approach or engage with the object for infants not prone to approach, thus predicting less approach over time. More research on this particular behavior is warranted.

Lastly, the effects of parenting may be tied to contexts of measurement. Specifically, because little research on parenting behaviors with novel objects exists, it is also unclear if intensity of novelty of these objects plays a role in the prediction of approach-withdrawal patterns. Much of the research on contextual differences in parenting behavior suggests that children may

Download English Version:

<https://daneshyari.com/en/article/5046209>

Download Persian Version:

<https://daneshyari.com/article/5046209>

[Daneshyari.com](https://daneshyari.com)