ABSTRACT

Food neophobia emerges during the transition to solid foods during infancy and refers to the tendency to reject novel or unknown foods. This rejection of novel foods has been shown to have adverse effects on the diets of infants and young children. For example, infants who reject new foods may not be able to consume the variety of foods necessary for adequate nutrition. Similarly, food neophobia during early childhood has been linked to poor dietary outcomes, such as less dietary variety and lower consumption and liking of vegetables. For these reasons, it is important to identify factors that may contribute to food neophobia during the first years of life. The two studies of this dissertation project investigated temperamental differences in the tendency to approach or withdraw from novel stimuli as one such factor. Temperamental approach/withdrawal processes have been extensively examined in response to new toys, new people, and new situations, but they have rarely been examined in response to novel foods. Thus, the overarching goal of this dissertation was to examine whether temperamental
approach/withdrawal tendencies drive infants’ and young children’s reactions to novel foods. Data for both studies were drawn from a longitudinal study following 115 infants and their families across the first five years of life. Latent profile analysis was used to identify subgroups of children who exhibited similar patterns of approach/withdrawal and affective responses to novel stimuli during toddlerhood. Infants’ responses to novel toys and novel foods were examined as predictors of the resulting temperament groups (inhibited, exuberant, and balanced) in Study 1. In Study 2, the toddler temperament groups were used as predictors of food neophobia at 4.5 years of age.

The goal of Study 1 was to investigate whether infants’ approach/withdrawal tendencies underlie their responses to novel foods. This goal was addressed by examining whether infants’ acceptance and rejection of novel foods were concurrently and longitudinally related to well-established measures of temperamental approach/withdrawal, such as responses to novel toys and objects. As predicted, infants who exhibited high levels of approach in response to the novel toys at 12 months also tended to show high levels of acceptance and low levels of rejection in response to the novel foods concurrently. Conversely, infants’ responses to the novel toys at 6 months did not consistently predict their responses to the novel foods at the same age. Together, these findings suggest that approach/withdrawal behaviors are only consistent across novel contexts after infants develop the ability to inhibit their approach tendencies and once individual differences in wariness come online in the second half of the first year of life. Furthermore, infants’ responses to the novel foods at 12 months, but not 6 months of age, predicted their temperamental style during toddlerhood. Infants who showed higher levels of rejection in response to the novel food at 12 months exhibited fewer approach behaviors in an unfamiliar environment with an experimenter and were more likely to be classified as inhibited compared to exuberant at 18 months of age. In sum, the results of Study 1 were largely consistent with our proposal that infants’ reactions to novel foods are likely driven by underlying temperamental approach/withdrawal processes.

Study 2 examined whether temperamental approach/withdrawal processes concurrently and longitudinally predicted parent ratings and behavioral observations of food neophobia at 4.5 years of age. Additionally, this study explored whether parent characteristics and feeding styles moderated the relationship between toddler approach/withdrawal and food neophobia during preschool. As expected, parent ratings and behavioral observations of temperamental approach/withdrawal were associated with concurrent measures of food neophobia at 4.5 years of age. Similarly, temperamental withdrawal during toddlerhood, specifically high levels of negative affect, low levels of positive affect, and the inhibited temperament type, predicted food neophobia over three years later. Collectively, the results of this study emphasize that children who are temperamentally inhibited are at a heightened risk for developing high levels of food neophobia during childhood. Furthermore, evidence emerged to show that these neophobic tendencies in inhibited children were exacerbated by a maternal pressuring feeding style.

In conclusion, this dissertation adds to the existing literature on food neophobia by revealing that temperamental approach/withdrawal processes were linked to food neophobia during infancy and early childhood. The results across both studies also contribute to the literature on approach/withdrawal processes by confirming that novel foods are another type of novel stimulus that elicits individual differences in approach/withdrawal behaviors. Future work should
continue to examine parenting practices and environmental influences that may decrease neophobic tendencies in temperamentally inhibited children, who are most at-risk for developing high levels of food neophobia during childhood.