Shadows of temperament in child eating patterns: implications for family and parenting research

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Parents influence the development of child eating patterns through the genes they transmit and the home environments they provide (1). Both are important and, as a general rule, neither should be discounted when striving to understand individual differences in how children eat. This holds true for eating in the absence of hunger (2), satiety responsiveness and food cue responsiveness (3), 24-h dietary intake (4), and food neophobia (i.e., fear of new foods) (5). With the population-based genetics study by Fildes et al. (6) in this issue of the Journal, the traits of food fussiness and preference for fruit and vegetables at 3 y of age can be added to the list. This is important information, affirming yet again that children are differentially predisposed to eat in certain ways (or not) due in part to genetic variations. Yet even more fascinating in the study by Fildes et al. is the association between food fussiness and fruit and vegetable preferences, which now are shown to have a common genetic basis. This is a novel finding. How this genetic mosaic is organized and interacts with the environment is unknown, but arguably is a sensible next step for research.

Taking a step back, these findings provide an opportunity to hit the “pause” button and reflect on the construct of child temperament. What might this construct offer for innovative research on families, parenting, and child eating regulation? In fact, the study of “temperament” has a long-standing history in the field of psychology and has had enormous impact. Temperament can be defined as “individual differences in reactivity and self-regulation assumed to have a constitutional basis” (7). Within this definition, “constitutional” is defined as “the relatively enduring makeup of the individual, influenced over time by heredity, maturation, and experience” (7). Thus, the construct suggests consistency over time and across situations, and, presumably, this would include eating contexts.

There are many different classifications of child temperament, with the number of domains dependent on the assessment tool (7, 8). Yet, despite the different categorizations and assessment tools, temperament can be reliably measured in early life and is generally stable across the life span (9). Different temperament profiles also have been linked to behavioral and medical disorders (8), which is relevant when considering children’s eating and obesity. And, apropos to Fildes et al., temperament is heritable. Heritability estimates for most dimensions of temperament typically fall in the range of 0.20–0.50 (8), although they are sometimes higher.

Given the extensive family research on child temperament and eating behaviors, it is surprising that so little research has examined potential synergies. The study by Fildes et al. suggests the knowledge to be gained by studying common etiologic mechanisms. Bridging research on child temperament (including “fussiness”) and eating may also inform about pediatric obesity. For example, an emerging literature supports an association between “difficult” infant or child temperament and increased child weight status (10, 11). We have examined this issue in several reports (12, 13) and recently found that greater infant emotionality—assessed observationally during a home feeding interaction—predicted higher BMI through age 6 y (14). This association may be mediated by parental use of food to assuage a difficult temperament (15). Might highly emotional infants be evoking overfeeding by caregivers? The issue of temperament and parental practices has received greater attention in the personality literature (16, 17), and the time is right to further integrate these constructs into the study of child eating behavior.

Thus, the “long shadow of temperament” (9) might, over time, include a cluster of specific child food preferences, eating patterns, and dietary selections. If so, how might this affect parents? Might they welcome or reject such patterns? Might this strengthen or disrupt family relationships and responsive feeding? And, ultimately, how might this affect efforts to achieve better nutrition and a healthier weight status for offspring? Infusing ideas and methods from the disciplines of personality and temperament psychology may help to answer such questions.

Both of the authors conceived the theme, wrote the manuscript, and shared responsibility for the final content. MSF has served as principal investigator or co-investigator on NIH grants examining the growth and development of high-risk infants, parental feeding practices, and obesity prevention. JBH had no conflicts to report.

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First published online March 16, 2016; doi: 10.3945/ajcn.116.132258.
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