Research report

Why don't they like that? And can I do anything about it? The nature and correlates of parents' attributions and self-efficacy beliefs about preschool children's food preferences

Catherine Georgina Russell *, Anthony Worsley

School of Exercise and Nutrition Sciences, Deakin University, 221 Burwood Highway, Burwood, Victoria 3125, Australia

ABSTRACT

Children's food preferences influence their food intakes, which then have important effects on their health status. Presently little is understood about the aetiology of children's food preferences within families. Parental beliefs are important in many domains of socialisation although their role in the development of children's food preferences has seldom been investigated. Parents of 2–5 year old children participated in semi-structured qualitative interviews, which were analysed with content analysis. The parents either had children with healthy food preferences (i.e. closely aligned with dietary guidelines) (N = 20), unhealthy food preferences (i.e. not closely aligned with dietary guidelines) (N = 18), or high levels of food neophobia (N = 19). Parents described their beliefs about why children like and dislike foods (their attributions) and their ability to influence children's food preferences (their self-efficacy). Children's food preferences were attributed to (a) the influence of children's characteristics (e.g. food neophobia level and personality), (b) sensory attributes of foods (e.g. texture and appearance), and (c) socialisation experiences (e.g. peer modelling and parental feeding behaviours). Results provide preliminary evidence of differences in parents' attributions and self-efficacy beliefs in the feeding domain and highlight the need for greater understanding of the ways in which parents' beliefs affect children's food preferences.

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Introduction

Children's diets in Australia, as in other Western countries, often fall short of dietary recommendations (Fox, Pac, Devaney, & Jankowski, 2004; Gregory, Collins, Davies, Hughes, & Clarke, 1995; Krebs-Smith et al., 1996; Magarey, Daniels, & Smith, 2001; Munoz, Krebs-Smith, Ballard-Barbash, & Cleveland, 1997). Typically, they are low in fruit and vegetables and high in non-core foods such as processed salty snacks and sweets (Fox et al., 2004; Gregory et al., 1995; Magarey et al., 2001; Munoz et al., 1997; Webb et al., 2006). This puts them at risk of overweight and obesity and attendant increased risk of morbidity and mortality in later life (Magarey, Daniels, Boulton, & Cockington, 2003; Power & Parsons, 2002). Since children's food preferences can have a considerable influence on their food intakes (Birch, 1979; Birch, McPhee, Bryant, & Johnson, 1993; Domel et al., 1996; Fisher & Birch, 1995; Gibson, Wardle, & Watts, 1998; Rasmussen et al., 2006; Resnicow et al., 1997) one avenue for improving their diets is to shift the preferences closer to public health consumption recommendations (Horne, Lowe, Fleming, & Dowey, 1995; Lowe,

Horne, Tapper, Bowdery, & Egerton, 2004; Russell & Worsley, 2007; Tapper, Horne, & Lowe, 2003). In order to achieve a shift such as this, knowledge on how and why children's food preferences develop is needed, especially in younger years. This is when the early feeding environment can have a critical impact upon children's eating behaviours (Nicklaus, Boggio, Chabanet, & Issanchou, 2004; Skinner, Carruth, Bounds, & Ziegler, 2002; Unusan, 2006). At this moment there are significant gaps in our understanding of how children's food preferences are socialised within families.

Whilst several theoretical models consider the behaviours and beliefs of parents as central to the socialisation process in other child outcomes, (Belsky, 1984; Goodnow, 2002; Lerner, Rothbaum, Boulos, & Castellino, 2002; Sigel & McGillicuddy-DeLisi, 2002) parents' beliefs about their children's food preferences and their roles as precursors to feeding behaviours and food preferences remain largely unexplored. Certain feeding behaviours can promote liking (e.g. repeated exposure and food as a reward), and disliking (e.g. coercion and reward for eating) of foods (Birch, 1999). The reasons parents choose one particular feeding behaviour (i.e. a specific behavioural strategy to influence the child's eating) over another may depend upon their beliefs about, for instance, how children's food preferences develop and why children reject and accept various foods (Baranowski, 1997; Goodnow, 2002), and their ability to

* Corresponding author.
E-mail address: g.russell@deakin.edu.au (C.G. Russell).

influence them. Many types of beliefs that may influence parenting are considered in socialisation models (Grusec, Rudy, & Martini, 1997; Sigel & McGillicuddy-DeLisi, 2002). In the present study, we considered two types of beliefs that we expected to be relevant to the domain of children's food preferences: parental attributions and self-efficacy level.

Attribution theories (e.g. Weiner, 1986) propose that parenting behaviours are dependent upon parents' inferences about what causes a child to act in the way he or she does. The causes for a child's actions may include the child's personality or temperament, situational factors and the child's motives (Bugental & Happaney, 2002; Dix & Grusec, 1992; Weiner, 1986). Such theories contend that parents look for reasons or explanations for their own and their children's behaviour and their beliefs or understanding of what is causing these behaviours shape their own behaviours (Dix & Grusec, 1992). That is, the nature of parents' attributions will influence their response (e.g. feeding behaviour) and thus developmental outcomes in children (e.g. food preferences) (Bugental & Happaney, 2002; Dix & Grusec, 1992; Weiner, 1986). A parent's beliefs about why a child rejects a food, for instance, may affect their decision to use effective (e.g. presenting the food again later) or ineffective (e.g. coercion) behaviours in response. Attributions about the causes of the child's behaviour (e.g. rejecting a food) may vary in perceived stability (causes are changing or unchanging), locus (causes are internal or external to the child), and controllability (causes are within or outside the child's control) (e.g. Weiner, 1985, 1986). Hart, Herriot, Bishop, and Truby (2003) showed that some British parents believe children's food preferences are fixed, formed by chance and resistant to change, suggesting stable and uncontrollable attributions. However detailed information on parents' attributions about influences on children's food preferences and how these differ across children is largely unavailable. It is possible that children with unhealthy food preferences may have parents who misattribute children's food preferences to stable factors (e.g. genetics or biology) or those within the child's control (and therefore as not amenable to influence by parents or other factors) whereas children with healthy food preferences may have parents who believe, more accurately, that food preferences are malleable and influenced by the child's experiences with foods despite some initial taste biases (e.g. away from bitter taste and towards sweet taste). However at present information to support or refute this notion is lacking.

As children's food preferences are affected by learning experiences, parents' feelings of their ability to positively influence their children's food preferences, their self-efficacy beliefs, were also considered here. Parents' perceptions of self-efficacy are central in socialisation research (Coleman & Karraker, 1998) as they are in parent training programs (Sanders & Woolley, 2005) and food behaviour models (Furst, Connors, Bisogni, Sobal, & Falk, 1996; Rogers, 1975; Strecher & Rosenstock, 1997). In general, higher levels of parenting self-efficacy are associated with more effective socialisation methods and more positive outcomes in children (Bugental & Happaney, 2002; Coleman & Karraker, 1998). In the current research, we expected that parents who felt more efficacious about their influence on children's food preferences would indicate a greater confidence in their abilities to handle children's eating behaviours (e.g. rejection of foods) and may therefore be more likely to choose health-promoting feeding behaviours (e.g. modelling or offering a rejected food again later). Whilst mothers, as a group, think they have more influence than anything else on children's food preferences (Skinner et al., 2002), individual variations between parents' self-efficacy levels in the domain of children's food preferences remain largely unexplored.

Variations in parental self-efficacy and attributions may arise partly from characteristics of the child being socialised (e.g. age, gender, personality or weight status) and parents' experiences

with him or her (Bugental & Happaney, 2002). This bi-directional perspective is consistent with propositions that children are active agents in their socialisation, with parents changing and adapting their methods depending upon the situation, the child and other factors (e.g. Bugental & Goodnow, 1998; Russell, 2011) as well as their interpretations of the child and situations (e.g. their attributions). The bi-directional perspective is receiving increasing support in studies of parent–child feeding interactions. There is now evidence that parents change their feeding behaviours in response to the (perceived) characteristics of their child (Carnell, Cooke, Cheng, Robbins, & Wardle, 2011; Webber, Cooke, Hill, & Wardle, 2010) even within families (Farrow, Galloway, & Fraser, 2009; Horn, Galloway, Webb, & Gagnon, 2011). In the current study we expected that the child's food neophobia level, which has been associated with less healthy food preferences in children (Russell & Worsley, 2008) would be one child-characteristic affecting parental beliefs. Food neophobia is a normal adaptive response that can be modified with repeated positive exposures (Dovey, Staples, Gibson, & Halford, 2008) yet parental attributions about a child's neophobic reaction, such as a food rejection, as being stable, may militate against parental attempts at positive exposures. It is possible that less healthy food preferences may partly arise when food neophobic behaviours are misattributed to dispositional or controllable factors by parents. Thus, parents of food neophobic children may be expected to have distinctive beliefs about their children's food preferences.

A model showing possible relationships between parents' beliefs, children's food preferences and food neophobia that informed the research design is outlined in Fig. 1. Parents' beliefs were expected to differ between three groups of parents: those of children with healthy food preferences (i.e. closely aligned with dietary guidelines), those of children with unhealthy food preferences (i.e. not closely aligned with dietary guidelines), and those of children high in food neophobia. Differences between the groups were expected due to (a) the influence of the parent directly on the child's food preferences (namely parent's beliefs affecting their feeding behaviours and subsequently children's food preferences – pathway 1) and (b) the effects of the child on the parent (namely children's food neophobia affecting children's reactions to foods and subsequently parents' beliefs – pathway 2). Children's food neophobia also directly affects their food preferences (Pliner, 1994; Pliner & Stallberg-White, 2000) although this pathway was not examined here. If parents' beliefs contribute to the development of children's food preferences then differences between the groups would be expected either via the influence of the parent on the child (pathway 1) or the child on the parent (pathway 2).
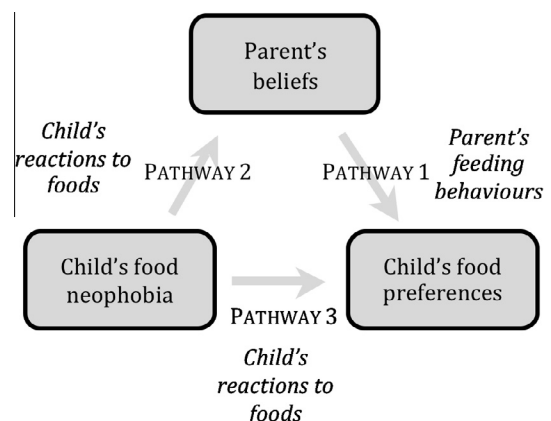

Fig. 1. Conceptual model of possible relationships between parents' beliefs, children's food preferences and children's food neophobia.