



"Psychology of food choices, food purchase and eating behaviour"

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Factors are thought to influence people's dietary choices

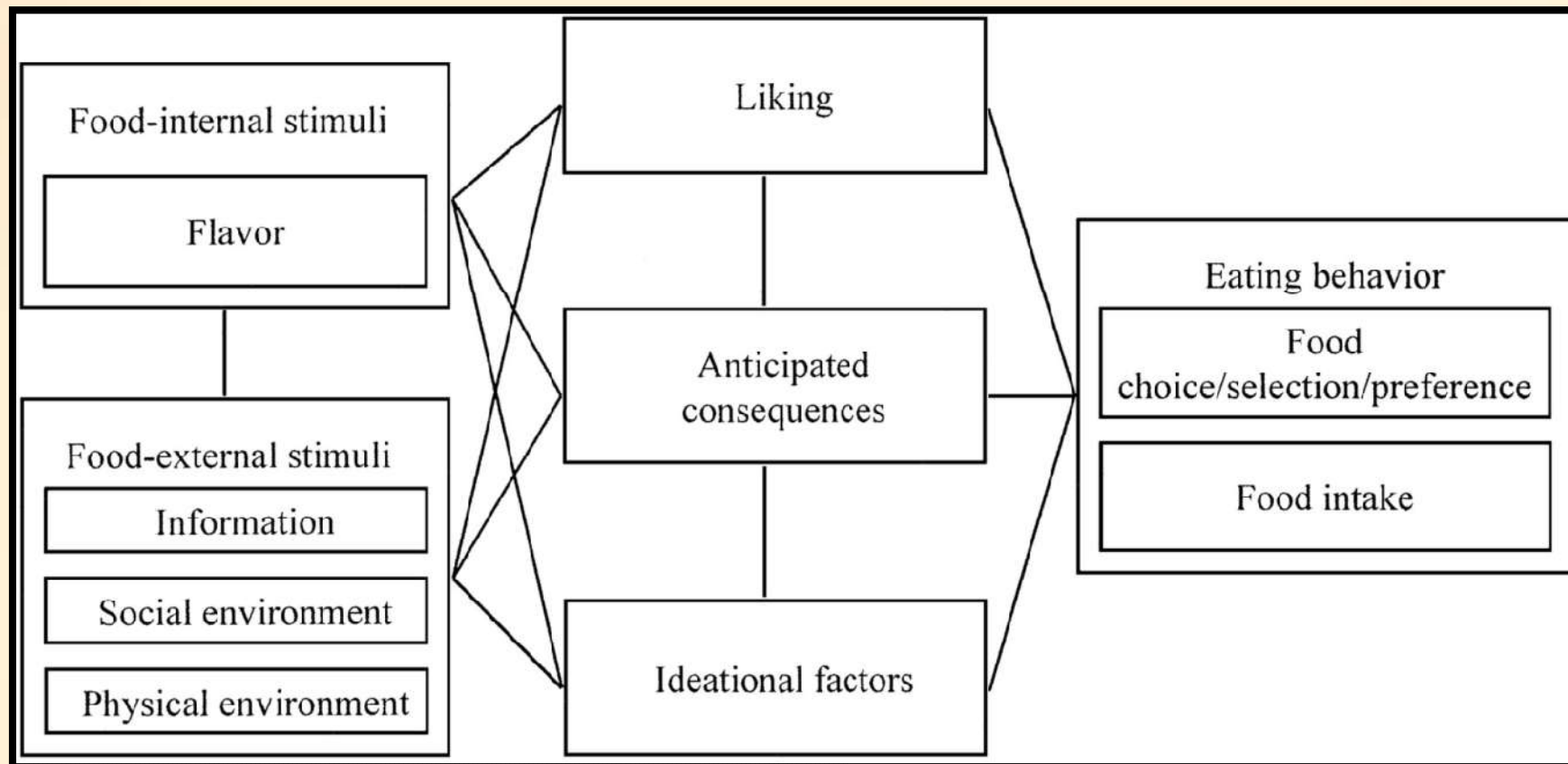
- Taste
- Nutrition
- Cost
- Convenience
- Peer Influence

- Various studies reported that taste is the most important influence on their food choices, followed by cost.

(Journal of the American Dietetic Association Volume 98, Issue 10, October 1998, Pages 1118-1126)

- Experimental studies on food consumption among adolescents routinely find that caloric information or nutrition is not a major consideration in food selection. Taste, hunger, peer preferences and other factors appear to be more important.

(Child and adolescent fast-food choice and the influence of calorie labelling: a natural experiment B Elbel^{1,2}, J Gyamfi¹, and R Kersh² ¹New York University School of Medicine, New York, NY, USA ²New York University Wagner School of Public Service, New York, NY, USA)



From: Food likes and their relative importance in human eating behavior: review and preliminary suggestions for health promotion

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Food-internal stimuli: flavour perception

- Perception of flavour involves the integration of several sensations, both within and between sensory modalities. Although taste and smell play a central role, the appearance of a food (e.g. its colour and shape), its texture, fat content and temperature, pain sensations (caused by, for example, chilli pepper), and even the sound of chewing, also contribute to the overall flavour perception



Food-external stimuli

- **Information**
- Information about healthy food aspects (e.g. reduced-fat/ with additional health benefits) sometimes appears to have a positive effect on liking (i.e. an increase).
- Significant shifts in prospective consumption of healthy foods (e.g. reduced-fat cookies) have been observed, as well as insignificant or even counter-productive effects on the likelihood of trying novel foods.
- Some findings suggest that a 'low-fat/ healthy' label acts as a license to consume more than one would customarily consume (Engell *et al.* 1998).

The social environment

- Interpersonal similarities in eating behaviour (e.g. eating rate, style and amount) suggest important direct or indirect social influences.
- Indirect social influences are very broad, including beliefs, culinary traditions and occasions that set the stage for or modulate the interpretation of food encounters.
- Direct social influences require the mediation of another person present on the occasion, while indirect social influences do not.
- Social factors appear to exert their influence on eating behaviour through social facilitation, resulting in increased food intake when eating in the presence of others.

The social environment

- The social context in which children's eating patterns develop becomes important because the eating behaviour of people in that environment serves as a model for the developing child. Models can have powerful effects on food selection, especially when the model is similar to the observer or, is seen as particularly powerful, as in the case of older peers.

(Leann L. Birch, PhD, and Jennifer O. Fisher, PhD)



The physical environment

- The last category of food-external determinants in our model consists of food availability and accessibility. There is a whole sequence of steps leading to the availability of foods in the final consumption situation (Baranowski, 1997). First, foods should be available in the stores. Next, selection in the store brings foods to the home situation. When access to a certain food becomes increasingly limited, people will shift their food choice to another food
- Time scarcity, the feeling of not having enough time, has been implicated in changes in food consumption patterns such as a decrease in food preparation at home, an increase in the consumption of fast foods, a decrease in family meals, and an increase in the consumption of convenience or ready-prepared foods. (Time scarcity and food choices: An overview

JenniferJabsCarolM.Devine)



Parental Influence

- Parents shape their children's eating environments in a variety of ways: through the choice of an infant feeding method, by the foods they make available and accessible, by direct modelling influences, by the extent of media exposure in the home, and by way they interact with children in the eating context.
- The children regarded low-fat food as unappetizing, and the parents reported that the high cost of fruits, vegetables and explained their relative unavailability at home. (Cullen KW, Baranowski T, Rittenberry L, Olvera N. Social-environmental influences on children's diets: results from focus groups with African-, Euro- and Mexican-American children and their parents. *Health Educ Res.* 2000; 15:581–590. [PubMed: 11184217])
- Evidence suggests that in the long run parental control attempts may have negative effects on the quality of children's diets by reducing their preferences for those foods. (Birch, L.L, Development of food preferences, *Annual Review of Nutrition*-1999)
- In addition to simply educating parents what to feed their children, the parent's diet itself should also be the focus on change. Encouraging parents to recognize that their own eating behaviour is the most important source of information for their children. (*Health Education Research*, Volume 19, Issue 3, 1 June 2004)

Rewards and Punishments

- Contrary to these parental beliefs, restricting children's access to foods does not produce food dislikes for the restricted food; instead, such practices enhance liking and can increase intake. Restricting children's access to foods actually may promote their overconsumption of those foods. (Leann L. Birch, PhD, and Jennifer O. Fisher, PhD)
- Because parents tend to encourage children's consumption of fruits and vegetables and to limit foods high in energy, sugar, and fat, directive styles of child-feeding may negatively affect children's liking of these foods by teaching them to dislike the very foods we want them to consume. (Leann L. Birch, PhD, and Jennifer O. Fisher, PhD)
- When people are coerced through elimination of choices or through undue incentives being placed on specific choices, long term behaviour is unlikely to change. Once the heavy restrictions are no longer there, individuals will return to the equilibrium of the foods they like. (Using Behavioral Economics and Food Psychology to Improve Meal Selection :David R. Just and Brian Wansink)

Peer Influence

- Eating choices appear to be influenced by the eating choices of those to whom they are socially connected.
- In one study, peer modelling was used to change children's preference for vegetables. The target children were placed at lunch for 4 consecutive days next to other children who preferred a different vegetable to themselves (peas versus carrots). By the end of the study the children showed a shift in their vegetable preference which persisted at a follow-up assessment several weeks later. (Birch, 1980)



The relative impact of liking and other determinants on eating behaviour

- The impact of food liking has been well established on several dimensions of eating behaviour, such as initial rate of eating, meal duration and amount eaten , and frequency of consumption.
- Frequency of consumption of a diversity of foods could be better predicted by liking and parental usage of the foods than perceptions of foods' health quality and friends' usage

Innate food likes

- Stronger support exists for innate taste preferences. Neonates' expressions suggest an innate preference for sweet and reflexive aversions or rejections to bitter and sour. Hedonic responses to salty tastes seem to be unstable during childhood, shifting from a neutral or negative hedonic value in the neonatal period and older infancy to a positive hedonic value by late childhood (Coward, 1981). There appears to be a role for intake experience during early infancy in the acquisition of salt preference
- One of the first choices that parents make that shapes a child's experience with food and flavours is the choice to breastfeed or formula-feed. The perception of flavours in milk also is one of the human infant's earliest sensory experiences , and there is support for the idea that this early experience with flavours has an effect on milk intake and on later food acceptance. (Sullivan SA, Birch LL. Infant dietary experience and acceptance of solid foods. Pediatrics. 1994;93:271–277)

Advertising

- Television is a pervasive purveyor of culture, providing children with a wide array of models and messages about eating that can influence children's food preferences and food selection as well as their activity patterns. (Leann L. et al)
- Repeated exposure to food advertisements for particular types of foods may foster children's preferences for energy-dense, nutrient poor foods. (Leann L. et al)
- Health advocates have focused on the prevalence of advertising for calorie-dense low-nutrient foods as a significant contributor to the obesity epidemic.
- In experiment conducted Children consumed 45% more when exposed to food advertising. Adults consumed more of both healthy and unhealthy snack foods following exposure to snack food advertising compared to the other conditions.

(Harris, J. L., Bargh, J. A., & Brownell, K. D. (2009). Priming effects of television food advertising on eating behavior. *Health Psychology*, 28(4), 404-413)

- Observed that 80% of advertisements showed foods with low nutritional value, high in simple sugars and snack foods high in sugar, fat, and salt.

(Cotugna N. TV ads on Saturday morning children's programming: what's new? J Nutr Educ. 1988;20:125–127)

- The largest share of advertisements during children's programming is for food products.

(Williams JO, Achterberg C, Sylvester GP. Targeting marketing of food products to ethnic minority youths. In: Williams CL, Kimm SY, eds. Prevention and Treatment of Childhood Obesity. Ann NY Acad Sci. 1995; 699:107–114)



Childs attitude and behaviour to foods

- Understanding children's eating attitudes and behaviour is important in terms of children's health.
- Evidence indicates that dietary habits acquired in childhood persist through to adulthood (Kelder *et al.*, 1994; Nicklas, 1995; Steptoe *et al.*, 1995).
- Research indicates a role for childhood nutrition on adult health
- Children selected different foods when they were being watched by their parents compared to when they were not (Olivera *et al.*, 1992).
- Child feeding strategies that restrict children's access to snack foods actually make the restricted foods more attractive. (Birch, 1999)



Raising individual problem awareness

- Although classical education programs emphasizing information transmission increase basic nutritional knowledge and awareness, they do not appear to have a significant impact on dietary practices.
- There has been a range of explanations offered to understand why children eat what they eat. Lack of knowledge has been implicated as causing poor diets, but is not explanation enough as health education campaigns have had limited success in changing eating habits (Gatherer *et al.*, 1979).
- It is observe that, information and education may be too much oriented to health issues, rather than to taste, flavour and liking. (Leann L. Birch, PhD, and Jennifer O. Fisher, PhD)
- In addition, a person may accept nutrition information at an intellectual level without necessarily finding it relevant to themselves, or may discard the information because health-hazardous eating behaviour perhaps adds real taste to life

*IT IS EASY TO BUILD A CHILD
THAN TO
REPAIR AN ADULT”*

FREDRICK DOUGLASS

THANK YOU! !