

Cross-domain Variety Seeking in Human Food Choice

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Adult Americans ($n = 123$) indicated which of a wide variety of soups, sodas, fruits and vegetables they had eaten in the last year. The number of different types consumed for each of these categories was correlated. These data yielded inter-correlations ranging from 0.10 to 0.60, indicating some cross-domain consistency in variety seeking. There were no significant correlations of variety of food selection in these food domains with age.

INTRODUCTION

The selection of a variety of foods is a basic principle of diet balance for omnivores. The variety dimension appears as an important aspect of food-related behavior in both rats (e.g. Barnett, 1956; 1988) and humans. Variety of food affects the amount ingested in a meal by humans (Rolls *et al.* 1986). A significant problem in some human children is the excessive limit on the variety of foods eaten in the 2- to 5-year-old range (Bakwin & Bakwin, 1972; Pelchat & Pliner, 1986). Except for the work on children, there has been little attention to individual differences in variety or neophobia in humans.

It seems obvious that people vary greatly in their interest in new foods, and that some focus on a very small range of foods, but there is little evidence on this point. Since variety seeking is a major feature of food choice, it is important to determine the extent to which it varies and the extent to which there is a coherent trait of variety seeking in food. If a variety trait could be identified, this would then justify investigation into the early experiences which might promote or impede it. The absence of such a trait would suggest that early variety experiences in particular domains might have later effects limited to those domains.

There is some indication of experience or variety seeking as a general personality feature from Zuckerman's sensation seeking scale (Zuckerman, 1979), but there are no specific data about food. This brief report presents such information, based on data from a survey of American adults.

METHODS

A questionnaire (two folded 8 × 11 pages, printed on both sides) on food cravings and health beliefs about food was mailed to 300 American adults, whose addresses

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were obtained from a marketing firm (Zeller). The list of names used was based on random sampling from telephone books and driver's license records. The initial mailing was followed up by a reminder postcard 1 week later, and a second questionnaire after another 2 weeks if the initial questionnaire was not returned. One hundred and twenty three usable forms were returned. The subjects were 70% male, and had an average age of 62.0 years (range 18-81 years). Given the random list from which the subjects were sampled, we presumed the high age of respondents resulted from selective returns.

The items of relevance to this paper were a checklist of 40 soups, 28 sodas, 34 fruits and 52 vegetables. Subjects were simply asked to "please check those soups (sodas, fruits, vegetables) which you have eaten at least once in the past year."

The lists of soups, soda, fruits and vegetables represented an attempt to list all examples of each category that might be consumed in the U.S.A. A visit to a large local supermarket helped to suggest possibilities. Items represented generic categories (except for cola beverages), and not specific brands. Soups included items like chicken noodle, cream of asparagus, lobster bisque, hot and sour. Sodas included items like Pepsi Cola, Coca Cola classic, cherry or black cherry, tonic water, and peach. Vegetables included items like cauliflower, potato, ferns (fiddleheads), water chestnut and chick peas. Fruits included items like red apple, green apple, peach, dried apricots, and tamarind. After the listing of items for each category, there was an additional space for "other" and subjects were asked to specify the item.

RESULTS

The critical question has to do with the correlation between variety of experiences in the four different food domains that were sampled (soups, fruits, vegetables and sodas). The results are presented in Table 1. It is clear that there is some cross-domain consistency in degree of variety: significant correlations were found between all but one pairing (soda-vegetables) of these items. The most substantial correlation (0.60) held for fruits and vegetables. There were no significant correlations between age and the four measures of variety (Pearson r s range from 0.03 to 0.19).

TABLE 1
Correlations of variety of foods eaten in different food categories
($n = 123$, Pearson r values)

Food category	Mean	SD	Sodas	Fruits	Vegetables
Soups	11.52	5.53	0.46**	0.43**	0.25*
Sodas	6.70	4.97		0.26*	0.10
Fruits	17.66	6.28			0.60**
Vegetables	29.16	8.18			

* $p < 0.01$

** $p < 0.001$ (two-tailed)

DISCUSSION

The principal finding in this paper is that there are some consistent individual differences in the experience of variety of foods across different domains. This finding is of significance for two reasons. First, it justifies to some extent, classifying people in terms of the variety of foods they consume, and second, it suggests that there may be some generality of results from studies in which variety in a single domain is studied.

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