



Short communication

How negative experiences shape long-term food preferences. Fifty years from the World War II combat front

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ABSTRACT

How does a person's first experience with a foreign or unfamiliar food shape their long-term preference and behavior toward that food? To investigate this, 493 American veterans of World War II were surveyed about their preference for Japanese and Chinese food. Pacific veterans who experienced high levels of combat had a stronger dislike for these Asian foods than those Pacific veterans experiencing lower levels of combat. Consistent with expectations, combat experience for European veterans had no impact on their preference for Asian food. The situation in which one is initially exposed to an unfamiliar food may long continue to shape preferences.

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Introduction

Being overseas in World War II opened up the culinary world for many Americans. After returning from service, French, Italian, and German food may have tasted fairly good for many returning European veterans. They found jobs, started families, and the idea of spaghetti or a bratwurst was not as strange – not as “foreign-sounding” – as it was 5 years earlier (Wansink, 2002).

Compared to the taste of the meat and potato-like cuisine of the Europeans, learning to appreciate Asian cuisines, such as Chinese and Japanese food would have seemed more extreme (Scott & Downey, 2007). Asian food was unlike anything most of them had ever eaten (Chin, 2005). Why then, did some Pacific veterans learn to love Chinese food and others hated it—even 50 years later?

Part of this could be related to a person's food adventurousness (Stallberg-White & Pliner, 1999), yet another part could be related to country-specific or experience-specific associations (Brunstrom, 2005). For instance, animosity towards a foreign country could influence different people in different ways (Klein & Ettenson, 1996, 1998a). Klein and Ettenson (1998b) found animosity influenced one's willingness to buy Japanese products in the Chinese city of Nanjing, where 300,000 civilians were killed by the Japanese in World War II. Similar results from World War II were found by Nijssen, Douglas, and Bressers (1999), who examined the animosity of Dutch consumers toward Germans. Such visceral experiences may also lead to biased preferences toward relatively unfamiliar foods from a hostile country.

Consider how Chinese food might have been perceived by American veterans of World War II. Although China was an American ally during the war, Chinese food was likely to have been unfamiliar and generally associated with Japan (Stouffer et al., 1949). For Pacific veterans, the associations they had with Chinese

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food may have been viscerally influenced by whether their Pacific experience had been favorable or unfavorable (Nordgren, van der Pligt, & van Harreveld, 2006). For instance, those experiencing intense or frequent combat may let this unfavorable experience negatively bias them toward Chinese food. For those who were more removed from the negative associations with combat, there should be less stigma. In contrast, combat experience for a European veteran should have little influence on their perception of Chinese food because there were no proximate negative associations with it.

Method

Because the objective of the study was to examine the long-term consequences of combat experience on attitudes toward unfamiliar foods, the focus of the sample was American World War II veterans. To investigate this, a random selection of 5000 veterans born before 1928 were obtained from census data. In the year 2000, each veteran was sent a survey, a cover letter, and a business reply return envelope (see Wansink, Payne, & van Ittersum, 2008). The cover letter asked them to complete the survey. In return, a small donation was made in their name to the World War II Memorial, they were sent a copy of the major findings of the survey, and they were invited to a University of Illinois symposium that discussed the results of the survey.

To determine their experience in combat, respondents were asked to indicate whether they had experienced combat while serving during World War II. Those responding "yes," were asked to note the frequency (1 = infrequent; 9 = frequent) and intensity (1 = low intensity; 9 = high intensity) of which they experienced combat ($\alpha = .83$). Veterans were classified as having had a high level of combat experience if the average score was higher than the mean (6.1 out of 9).

Veterans were then asked to indicate their preference toward Chinese food and Japanese food (1 = dislike very much; 9 = like very much). To examine these preferences independent of their general predisposition for adventure, respondents were asked to rate their general level of adventurous (1 = not adventurous; 9 = adventurous) immediately following the war and then again at the current time. An index for adventurousness was calculated using the sum of these two measures ($\alpha = .73$). Last, demographic questions were asked.

While there are likely to be memory biases that can affect responses, efforts were made to minimize these biases (Bradburn et al., 2004). Based on a focus group of six veterans, questions were worded in a way where they could be answered with the least effort and greatest accuracy. While survey research led us to assume that World War II presented these veterans with their initial exposure to Asian food (Stouffer et al., 1949), a follow-up phone survey was conducted 8 years after the initial survey to confirm this. Of the 26 individuals who were successfully interviewed, all 26 reported eating Asian food multiple times during their deployment. Twenty-three of these recalled World War II being their first exposure to Asian food. The remaining three were not certain whether it was or was not. Of those contacted, the average age was 84 (range 81–92).

Results

Of 2376 surveys that were deliverable, 493 veterans personally responded (20.7%). Among these veterans, 76% were between 76 and 80 years of age at the time of the survey, 31% had attended at least 1 year of college, 42% were born in a town with less than 10,000 inhabitants, and 41% lived in a town with less than 10,000 inhabitants when they answered this survey.

Analyses of variance indicate that attitudes towards Chinese food were more favorable among Pacific veterans with low combat experience than those with high combat experience (5.37 vs. 4.22; $F = 8.439$; $p < .001$). As expected, the combat experience of European veterans had no impact on their attitudes towards Chinese food ($p > .05$) (Fig. 1).

The same analysis of attitudes toward Japanese food further supports the impact of combat experience. Pacific veterans with high combat experience had a less favorable opinion about Japanese food than those with little or no combat experience (2.83 vs. 3.49; $F = 3.046$; $p < .05$). Yet the attitudes of European veterans were unaffected by their combat experience.

Across all veterans, 31.8% of the generally liked Chinese food (7–9 on the 9-point scale) and 29.2% disliked it (1–3 on the 9-point scale). Their opinions toward Japanese food were more negative: only 12% liked it and 58.4% of disliked it.

One's attitude toward Asian foods could also be partly explained one's level of adventurousness (Stallberg-White & Pliner, 1999). Veterans with a higher level of adventurousness may generally have more positive attitudes towards foreign food. Yet it was unclear whether this personality trait would be sufficient to overcome negative combat experiences.

To examine this, combat experience and self-rated adventurousness were regressed upon preferences toward Chinese and Japanese food. Both factors significantly predicted attitudes only toward Chinese food. Combat experience and adventurousness explained 6.1% ($p < .01$) of the variance of Pacific veterans' attitudes towards Chinese food, yet it explained none of the variance (0.4%, $p > .20$) among the European veterans. The analysis for Japanese food was not statistically significant for either group of veterans.

Discussion

Of those veterans who enjoyed Chinese and Japanese food and still ate it with some frequency, there were no measured characteristics they had in common. Before the war, some had lived in big cities, some on farms. Some had graduated from college, others had never seen a 9th grade classroom.

What did explain their preferences was the level of combat they had experienced as soldiers (Wansink, 2006). When analyzing the profiles of those Pacific veterans who liked Chinese food, we did not find Marines who had been at Iwo Jima or infantry soldiers at Guadalcanal. What we found were mechanics, clerks, engineers, and truck drivers—enlisted men who did not experience the War from the front line. Although their wartime experience was a sacrifice, they did not come home with terrible associations that tainted their preference of food even 50–60 years later. It appears

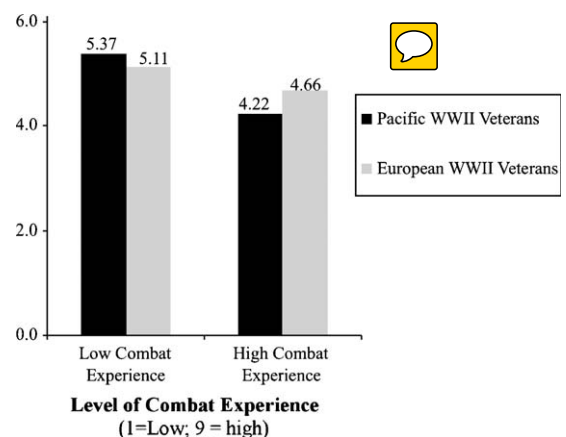


Fig. 1. WWII Pacific combat experience negatively shaped preferences for Chinese food.

the feelings we have when we first eat a food can follow us for a lifetime.

The importance of the first experience with an unfamiliar food on long-term preferences indicates that extra care must be taken when planning the introduction of new foods and new recipes. Changing initial food perceptions may be difficult, but understanding the influence of the context of the initial exposure to an unfamiliar food may give insights for improving the healthfulness of the food we eat.

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