

The Many Facets of (Not) Eating Fish: Using Norms to Reduce Fish Consumption

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Project Summary

The choice whether or not to consume fish is a complex one for many consumers. The negative environmental and animal welfare implications of both farmed and wild-caught fish are well-documented. But, fish is often championed as an ethical and sustainable alternative to other forms of meat. This can make campaigns to reduce fish consumption tricky: if you emphasize the importance of healthy eating, for example, will this encourage people to consume *less* fish, as fish is known to contain dangerous heavy metals, or *more* fish, because people think of fish as a “heart-healthy” protein? These conflicting considerations are true for a range of domains (e.g., animal welfare, sustainability, etc.). This project investigated the importance of a variety of (sometimes contradictory) norms surrounding fish consumption to design an effective behavioral intervention to encourage people to eat less fish. We do this in two phases:

Phase 1) We first used a correlational approach to map a variety of norms and values related to fish consumption to identify which may matter most in decision-making.

Phase 2) Based on Phase 1 results, we designed and assessed a norm message intervention to reduce fish consumption in a dietary choice.

Key Takeaways for Reducing Fish Consumption

1. In the context of fish consumption in the U.S., we found that norm perceptions about the following factors corresponded to fish consumption:
 - a. **Environmental impacts:** e.g., widespread concern about *by-catch*.
 - b. **Ethicality:** e.g., concerns that consuming fish was *ethically unclear*.
 - c. **Health impacts:** e.g., concern about *pesticides* and *hormones* present in farmed fish, and *mercury* present in wild-caught fish.
2. In a randomized control trial, we found that informing consumers that other consumers were concerned about these factors produced a **6% shift in total food orders** away from a dish containing fish and towards a vegetarian dish.

Recommendations for Practitioners

1. Crafting a social norms message from the above norms can be part of an effective strategy to reduce fish consumption in the U.S.
2. **Practitioners could repeat the procedure here to tailor their interventions to other contexts and populations.** Essentially, for a given population / context:
 - a. Evaluate perceptions of many possible norms
 - b. See which correspond to actual dietary choices
 - c. Design randomized control trials to see if norm messages are effective
3. **Integrating multiple concerns from different domains (e.g., health and the environment) was effective:** these findings are consistent with existing research that finds that a “portfolio approach” to persuade people might be more effective than just appealing to a single topic, like animal rights or the environment alone.



Brief Overview of Randomized Control Trial

Participants (N>2100 Americans) were recruited by an online survey provider randomly assigned to either a passive control condition or an intervention condition. Participants in the intervention condition were shown the norm message below:

“A national survey finds that people have a variety of concerns about fish consumption. Specifically, they are concerned about “by-catch” in the fishing industry (when other species get caught in the nets, like turtles and dolphins) and, to varying degrees, many people question how ethical it is to buy fish.

They also have health-related concerns. People are worried about pesticides and hormones in farmed fish and are concerned about high mercury content in wild-caught fish.”

Participants were then informed that they would be asked to make a choice between two restaurant dishes and that they would have a one-in-ten chance of getting a voucher that could be used to redeem the dish they chose in the survey. Next, participants were asked to choose between a vegetarian and a fish-based entree from the Panera menu (specifically, a “Modern Caprese Sandwich” and a “Tuna Salad Sandwich”). Each entree was featured with a picture and description as depicted on Panera’s menu:

<u>Tuna Salad Sandwich</u>	<u>Modern Caprese Sandwich</u>
<i>Special recipe tuna salad, emerald green lettuce, tomatoes, red onions, salt and pepper on Black Pepper Focaccia.</i>	<i>Basil-white bean pesto, sliced fresh mozzarella, parmesan, arugula, smoked tomato confit, fresh basil and balsamic glaze toasted on Black Pepper Focaccia.</i>
	

Item order was counterbalanced. 31% of participants who received the intervention selected the fish-based entrée, as compared to 37% of participants in the control condition.