Framing Messages to Motivate Consumers: Example for Thermometer Use

Presented at Consumer Food Safety Education Conference
March 6–8, 2019
Orlando, FL

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Framing Messages

• Message framing provides consumers with persuasive arguments that good things (*positive framing*) or bad things (*negative framing*) may happen if a behavior is not adopted.
• Message framing appeals to either consumers’ logic (*rational appeal*) or emotions (*emotional appeal*).
• Limited research has been conducted to assess the effectiveness of alternative messaging approaches for food safety recommendations.
• Conducted focus groups to obtain consumer responses to four different messaging framing approaches for thermometer use.
Using a **food thermometer**
can be the difference between life and death for a young child.

Following a Labor Day celebration, a young girl was hospitalized and developed an illness called hemolytic uremic syndrome (HUS) and died several days later. Her death was caused by eating an undercooked hamburger that was contaminated with *E. coli* O157:H7. Using a food thermometer to make sure meat and poultry have reached a safe internal temperature to destroy any bacteria that may be present can prevent tragic deaths such as this.
Be a hero in your family:
*Use a food thermometer!*

Using a food thermometer to determine doneness when cooking meat and poultry ensures that your food has reached a safe internal temperature to kill any bacteria and offers the added benefit of not overcooking it, so the food tastes better.
Message 3 (negative/rational appeal)

**Using a food thermometer can help prevent illness and even death.**

About 3,000 people in the United States die each year from food poisoning; in some instances, these deaths were caused by not using a food thermometer to check the doneness of hamburgers. Harmful bacteria, such as *Salmonella* and *E. coli* O157:H7, can survive in meat and poultry if not cooked to a high enough temperature. These bacteria can cause nausea, diarrhea, and vomiting and can also lead to serious, long-term health problems such as hospitalization due to bloody diarrhea and kidney failure that requires life-long dialysis. Reactive arthritis is another possible long-term side effect.
Don’t skip using a **food thermometer**!

Not using a food thermometer can result in dry, overcooked meat and poultry. Not taking the time to use a food thermometer to check the endpoint temperature when cooking meat and poultry also increases the chance of you or your family getting sick from food poisoning.
Focus Group Participants

8 Focus groups with parents of children (<18 years)

4 groups English (n = 36)
groups Spanish (n = 35)

4 groups high school or less (n = 35)
groups some college or more (n = 35)

25 Males
46 Females

Total 71
Participant Grades for Each Thermometer Use Message

**Message 1:** Using a food thermometer can be the difference between life and death for a young child.

**Message 2:** Be a hero in your family: use a food thermometer!

**Message 3:** Using a food thermometer can help prevent illness and even death.

**Message 4:** Don’t skip using a food thermometer!
Message 1: Grades

- Tied with Message 3 for most A ratings
- Received more A ratings among English-speaking than Spanish-speaking participants
- No noticeable differences in opinions by education level

**Using a food thermometer can be the difference between life and death for a young child.**

Following a Labor Day celebration, a young girl was hospitalized and developed an illness called hemolytic uremic syndrome (HUS) and died several days later. Her death was caused by eating an undercooked hamburger that was contaminated with *E. coli O157:H7*. Using a food thermometer to make sure meat and poultry have reached a safe internal temperature to destroy any bacteria that may be present can prevent tragic deaths such as this.
Message 1: Likes

• “... it’s like everyone cares about their children; so just seeing ‘death of a young child’ makes you scared, makes you want to use ... Because if you’re just like, ‘Oh, you may get sick,’ you’re not going to be worried about it, but if you see ‘death,’ you’re like, ‘Oh, my god, I should use it.’” *(English, Austin)*

• “... what happened to that little girl, could happen to you too. I don’t care about myself, but if you think about kids, yeah! It makes you think you have to cook those burgers well.” *(Spanish, Chicago)*

• “Because I feel that you need scare tactics. ... it’ll make people think. Make people realize, you know, this can happen. You know, it happened to this little girl, ... it ... could happen to mine.” *(English, San Diego)*
Message 1: Dislikes

• “I feel like they’re trying to guilt trip me, and I don’t appreciate that.”  
  (English, Austin)

• “I would prefer that this would be a preventive message. It is not necessary to mention the child dying.”  
  (Spanish, Hartford)

• “Yeah, it’s just ... a scare tactic. It doesn’t really go [over] well. People are like, ‘Eh, it’s not going to happen to my kid.’”  
  (English, San Diego)

• “[The message] will not resonate with people without kids.”  
  (Spanish, Chicago)
Message 2: Grades

- Received fewer A ratings than Messages 1 and 3 but was still well received by some participants
- No noticeable differences in opinions between English- and Spanish-speaking participants
- No noticeable differences in opinions by education level

**Be a hero in your family:**

*Use a food thermometer!*

Using a food thermometer to determine doneness when cooking meat and poultry ensures that your food has reached a safe internal temperature to kill any bacteria and offers the added benefit of not overcooking it, so the food tastes better.
Message 2: Likes

• “Yeah, it’s simple, clean cut. ‘Just be a hero. Use it.’ It’s easy.”  
  (English, Austin)

• “It’s straightforward; there’s no ... scary information, but it’s information, but it’s not like, ‘You’re going to die,’ you know.”  
  (English, Austin)

• “I like it. It’s straight to the point. It keeps it positive, like you’re the hero, so like kind of motivative. It ... covers pretty much all the aspects of what they’re trying to convey.”  
  (English, San Diego)
Message 2: Dislikes

- “Yeah. It’s just not really getting the point across that you could [get sick] if you don’t cook it.” *(English, Hartford)*

- “It’s simplistic. It does not motivate me to use a thermometer ... It’s kind of cheesy.” *(Spanish, Chicago)*

- “It’s patronizing, ‘Be a hero.’ ... like it’s great, like I want my kids to use food thermometers, ... but for me, it won’t get me to use a food thermometer...It’s patronizing to an adult but perfect for elementary schools.” *(English, San Diego)*

- “I like messages to be more dramatic to create awareness. This was too general, like a message that is not important.” *(Spanish, San Diego)*
Message 3: Grades

Using a **food thermometer** can help prevent illness and even death.

About 3,000 people in the United States die each year from food poisoning; in some instances, these deaths were caused by not using a food thermometer to check the doneness of hamburgers. Harmful bacteria, such as *Salmonella* and *E. coli O157:H7*, can survive in meat and poultry if not cooked to a high enough temperature. These bacteria can cause nausea, diarrhea, and vomiting and can also lead to serious, long-term health problems such as hospitalization due to bloody diarrhea and kidney failure that requires life-long dialysis. Reactive arthritis is another possible long-term side effect.

- Tied with Message 1 for most A ratings
- Received more A ratings among Spanish-speaking than English-speaking participants
- Received more A ratings among less educated than more educated participants
Message 3: Likes

• “Wow, that’s a lot [of people who die].” (English, Chicago)

• “I gave it an A. It’s more detailed, and it even details some of the bacteria we could find in food, [like] Salmonella, E. coli.” (Spanish, Chicago)

• “It’s kind of opening your eyes up … basically you don’t want your family eating anything that’s going to get them sick.” (English, Hartford)

• “It grabs your attention, and you will want to read it, and you want to know it and prevent it. (Spanish, San Diego)
Message 3: Dislikes

• “Because in spite of the information, it’s boring, and people don’t have the time to read all that. And it talks about diarrhea and vomit, and I don’t want to read that when I’m thinking about food.” (Spanish, Austin)

• “I feel like it’s extreme. We don’t want to freak out people in the public, you know, when you scare the consumer …” (English, Chicago)

• “I gave it a D because it’s just too graphic for me. Fine, tell me it’s going to make me sick or could cause death, but I don’t need to know all the details of it.” (English, Austin)
Message 4: Grades

Don’t skip using a *food thermometer*!

Not using a food thermometer can result in dry, overcooked meat and poultry. Not taking the time to use a food thermometer to check the endpoint temperature when cooking meat and poultry also increases the chance of you or your family getting sick from food poisoning.

- Received fewest A ratings and most D or F ratings
- No noticeable differences in opinions between English- and Spanish-speaking participants
- No noticeable differences in opinions by education level
Message 4: Dislikes

- “Once again, it’s telling you how to cook your food. I think my food’s pretty good without a thermometer.” (English, Chicago)

- “‘Dry, overcooked meat,’ like that’s not the reason for using a thermometer. I mean, really the main reason is to make sure it’s properly cooked.” (English, Hartford)

- “I think it’s kind of a little insulting. To me it’s like ... they’re teaching me how to cook when I’ve been doing it all my life. Yeah, especially because it says like you and your family, or your family, it’s like insulting me, like why would you say that I’m not taking care of my family.” (English, San Diego)
Conclusions

• Participants had mixed opinions on whether fear appeal messages are motivating → single messaging approach not effective with all consumers

• Participants did not respond favorably to messages emphasizing benefits of food thermometer use (i.e., avoid overcooking) → focusing on reducing risk of foodborne illness rather than potential benefits is more motivating

  — USDA/FSIS has immediately used this insight in its outreach, and is no longer emphasizing the ‘convenience’ a food thermometer offers.

• Further research is needed using an experimental approach to better understand whether fear appeals will effectively motivate consumers to use a food thermometer and the characteristics of these consumers.
Acknowledgments

This work was funded by the U.S. Department of Agriculture (USDA), Food Safety and Inspection Service (FSIS); contract no. GS-00F-354CA, order no. AG-3A94-D-16-0130. All views expressed here are those of the authors and not necessarily of USDA FSIS. USDA is an equal opportunity provider, employer, and lender.
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