Impact of environmental factors on individual food choices

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Outline

• Behavioral economics and food choice
• Impact of environmental factors on consumer food choices
• Implications for policy
We do not behave rationally

- Standard economic theory assumes that individuals maximize their own wellbeing BUT decisions that prevent individuals from reaching rationally intended goals play a significant role in food choices.

- Individuals invest upwards of $40 billion dollars annually to restrict their own eating behavior in the form of diet plans.

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Portion sizes play a role in how much we eat

- People consume 30% more calories when offered the largest portion than when offered the smallest portion
- Larger portions led to greater calorie intake

Visual cues influence consumption

Example: Give some people soup in self-refilling soup bowls, half had normal bowls; ask them to rate the soup and estimate how much they ate

- People given self refilling bowls ate 73% more
- The groups perceived that they ate the same amount
- Both groups thought they ate less
- People in the self refilling bowl condition did not feel more full

Variety increases consumption

- Having many different choices (colors, flavors) increases consumption

- People offered an assortment of 10 colors of jellybeans ate 43% more than those offered 7 colors

- People offered the jellybeans in a mixed assortment ate 69% more than those offered jellybeans sorted by color

Wansink B. Environmental factors that increase the food intake and consumption volume of unknowing consumers. Annu Rev Nutr 2004;24:455-79.
Impulse marketing

• Encourages spur-of-the-moment, emotion-related purchases that are triggered by seeing the product or a related message
  • Goods placed in prominent end-of-aisle locations account for about 30% of all supermarket sale\(^1\)
    • Vendors pay a slotting fee to retail markets to guarantee that their products will be placed in these locations
  • Placing products in prominent locations or spots where consumers will see them at the end of their shopping journey can increase their sales by as much as a factor of five\(^2\)

\(^2\)Curhan RC. The effects of merchandising and temporary promotional activities on the sales of fresh fruits and vegetables in supermarkets. J Mark Res 1974;11:286-294
Why are we so responsive to the environment?

- People lack the capacity to fully control their eye gaze, and what they look at the longest is the strongest predictor of what we will buy.
- Most purchasing decisions are made very quickly and automatically without substantial cognitive input, usually in less than a second.
- Choices of foods high in fat and sugar are made more quickly than healthy food choices.
  - Even when trying to make healthful choices, our ability to resist palatable foods declines when we are distracted, under stress, tired, etc.
- Most people don't recognize that the placement of products influences their purchases or eating behavior and typically deny the existence of contextual influences, even when they are pointed out.

Take home messages

• Food choices are often automatic and made without full conscious awareness

• Food choices DO NOT reflect true preferences
  • A large proportion of people claim that they want to lose weight but only a small proportion who are actually able to do so → human behavior doesn't always conform with states goals

• What and how much people eat are highly influenced by contextual factors that they may not recognize and therefore cannot easily resist

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Behavioral economic principles for policy change

• Policies should encourage healthier eating without restricting the choices available to the individual or reducing the profit opportunity of the food manufacturer

• Policies that address unconscious consumer behaviors may be effective in creating both greater profits for the marketer and better health outcomes for the consumer
An example of a policy alternative based on behavioral economics

• Current US law prohibits marketers from claiming that a certain type of packaging could discourage overeating

• This policy removes the possibility of marketers profiting from selling food packaged to reduce consumption

• A government agency could provide a third party certification for portion size norms similar to organic foods

• Therefore, a company that wishes to label their foods as a healthy portion would submit their packaged foods to a government process to determine if the packaging encourages healthy levels of consumption
Research needed to inform policy

- More research needed to identify which marketing strategies place people at risk or undermine their health
  - This kind of knowledge should be applied in informing regulations that could govern the design and placement of foods in retail outlets to protect consumers
- Test new approaches to reduce risk such as limiting the types of foods that can be displayed in prominent end-of-aisle locations
  - Harnessing marketing research to control obesity could help millions of people who desperately want to reduce their risks of chronic diseases