

Food environment dynamics research

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Emily Warrender

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Dr. Terrence Thomas and Murat Cankurt, Ph.D. at North Carolina A&T State University provide guidance on the fundamentals of food environment dynamics research

The food environment, broadly defined, is a dynamic and complex system comprising several interacting components. The interaction among these components evolves over time, influenced by both external and internal factors, resulting in emergent and unpredictable outcomes. Typical components identified in the literature include the retail, social, economic, political, production, and physical environments. A significant portion of research focuses on the food choices of individuals in the context of the existing physical and commercial environments.

Theoretical expositions on choice behaviors, in general, have considered models such as Becker's ⁽¹⁾ view of decisions emanating from stable preferences and the theory of planned behavior. ⁽²⁾ Employing this theoretical foundation, researchers have investigated the influence of the food retail environment ⁽³⁾, food access, food-related values ⁽⁴⁾, and food-related lifestyle on food choice behavior. These models explain choice from the perspective of the individual decision-maker.

Broadening our perspective to include and increase focus on the social component and its impact on food choice allows for a holistic view of the food environment, which deepens our understanding of its dynamic complexity. Our enhanced understanding, gained from a sociological perspective, strengthens our capacity to embrace and work with the evolving complexity of the food environment. That is, policy makers and change agents will be in a position to choose systems thinking, contemplate the role of social learning, adopt continuous iterative learning and solution building over linear thinking and quick fixes, and tailor policy solutions to address a continuously evolving food environment.

Integrating the social component

The foregoing characterization of the food environment captures the various configurations of the physical and commercial environments in which food exists and is made available to the consumer. As ⁽⁵⁾ notes, including a sociological perspective in the study of food environment would enrich our understanding by expanding the interpretation of the food environment beyond its physical and commercial features and laying the foundation for

a holistic systems approach. A systems approach would negate the need to isolate and investigate single or multiple variables to ascribe a unique impact when there is no such thing.

Multiple factors work in concert to produce the observed outcomes. In looking at the food environment as a whole, one approach would involve employing social practice theory^(6,7,8) to analyze and interpret the salience of the food environment for consumers and to use⁽⁹⁾ social learning to complement the potential contribution of social practice theory to our broader understanding of the impact of food environment on behavior.

This article draws on the work of^(6,7,8) in our interpretation of social practice. Here, practice is defined as an accepted way of doing things that has been shaped over time by social, political, economic, and technological forces. Furthermore, the components or elements of a practice interact to define it, and the practice evolves over time as linkages among these elements are redefined.

This view of practice – practice as an entity – separates it from practice as performance, which in this sense is the repetition of an activity to improve at performing it; choir practice or a cricketer practicing in the nets come to mind. Notice that practice as performance takes place within the tradition/protocol of a particular practice, that is, practice as an entity.^(6,7,8) For example, choir practice happens within the practice of worship in the Christian religion.

Practice as an entity, as^(6,7,8) describe it, can also be viewed as a system where interconnected and interacting elements shape the character of the system. Given this perspective, the system of social practice is a dynamic entity, which means that food choice behavior and its impact are emergent outcomes. The commercial food environment is one element of the material component of the social practice system.

Because the outcomes of this “social practice system,” for example, food choice behavior and its impact, are emergent phenomena, it is difficult for researchers to connect them to a single component of the system. This means an analytical approach that takes a system view of the food environment is likely to yield more fruitful results.

Further, as⁽⁹⁾ notes, individuals live in a network that impacts their behavior. Others, such as⁽¹⁰⁾ and⁽¹¹⁾, argue that our social networks determine our beliefs and behaviors.

However,⁽⁹⁾ provides convincing rationale and empirical evidence to support the role of social structure as a major driver of norms, habits, preferences, and behavior and argued that learning from examples of other people’s behavior and the associated contextual features is an important and likely dominant mechanism for behavior change. Further,⁽⁹⁾ also showed that exposure to the examples of peers had the most significant effect on behavior change, including health behaviors, the adoption of habits, and preferences.

Considering the logic of the foregoing discussion, a more robust interpretation of the food environment is called for; one that views the food environment from the vantage point of social practice. Seeing the food environment as a social practice would draw attention to the emotions, preferences, norms, values, customs, commercial, agro-geographic, and social groups that shape and are shaped by the “social practice.”

Social practice encompasses the traditions surrounding purchasing, preparing, and consuming food, as well as household structure, social interactions related to food, the resultant exposure and associated social learning, and the myriad silent cues in the environment that reinforce or discourage healthy eating habits. The social learning that results from interaction among individuals and groups is a potent mechanism for promoting the adoption of new behaviors and modifying existing ones, as it is easier to accept and copy new behaviors and skills from friends and family you know and trust.

Food habits: The way forward

Considering the environment in which an individual lives affords one the ability to draw reasonable inferences about the character of the individual. ⁽¹²⁾ Similarly, the environment in which individuals live can inform us about the food habits of the individual, provided we employ appropriate tools to gather information. A prominent feature of modern life is dynamic complexity. This means that efforts to understand the relationship of individuals with food should employ methods that mimic the structure or complexity of the dynamic food environment.

This implies moving away from using survey data and the linear approach to generating insights, relinquishing the reductionist approach to investigation, and ceasing to rely on quick fixes. Instead, employ real-time data, simulations, and transdisciplinary approaches to investigate an individual's relationship with the food environment, and adopt a stance of iterative solution development and continuous learning, because in a dynamic and complex environment, problems do not remain solved.

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Primary Contributor

Terrence Thomas
North Carolina A&T State University

Additional Contributor(s)

Murat Cankurt
North Carolina A&T State University

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