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Food Security, Food Desert and Common Sense Solutions

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Abstract

The commonly accepted definitions of food desert and food insecurity shape most efforts to address the adverse effects of both phenomena. The primary features of food deserts are places where low-income people reside, communities that are more than a mile from a full service supermarket and reduced access to sources of fresh fruits and vegetables. On the other hand, food insecurity is a condition where people do not have enough nutritious food to meet recommended daily requirements. In some instances, food security definitions stipulate that the food available should be culturally acceptable. Thus, peculiar features of the individuals, the place and type of food available or eaten inform our understanding of the twin concepts of food deserts and food insecurity and drive our efforts to address them. * start here with cs definition and relevance.

Solutions such as improving access to fresh fruits and vegetables, providing nutritious foods through various support programs such as SNAP and food stamps, projects that fund development of grocery stores in underserved communities, promotion of local community-based food production and nutrition education programs are based on the forgoing definitions. These efforts are intuitively appealing common-sense solutions because they appear logical and reasonable. That is, to an average reasonable person these efforts seem very appropriate and with a great likelihood of solving the problem. Widely received knowledge and practice ground these common-sense solutions. Yet, progress in solving the nutrition related problems associated with food desert and food insecurity is much slower than anticipated, or to take a more conservative outlook, the problems seem intractable. We are often bewildered that proposed solutions that seem so

obvious and logical fail to drive progress forward at a rate that would allow us to envision the disappearance of the problem in the near future.

*One possible explanation for the slow progress in resolving the problems associated with food deserts and food insecurity is our reliance on common sense knowledge as the foundation for building solutions. In many instances, common sense knowledge may not be enough to fuel our quest for solutions that produce great impact. The reason for this is common sense knowledge does not give us access to deeper insights that play a vital role in solving the problem. For the purpose of this discussion, common sense, as Watts [1] described it, is the knowledge, insights and experiences individuals obtain overtime as they interact with and deal with everyday situations and people. From this perspective, common sense could include knowledge that lie in the realm of professions and professional practice. Because common sense knowledge is intuitive -- readily available to us, knowledge we can draw on and have the expertise to apply; it is our go to everyday resource and available reserves for making sense of reality without rigorous study and review. It serves us well when applied to simple everyday situations (proximate reality). From the author's perspective, the core feature of common-sense knowledge is the way in which we appropriate and use it. For instance, we take certain theoretical knowledge or knowledge derived from practice as given. Thus, in applying it without deep examination of its weakness or relevance to the situation, the well-accepted knowledge is more like a tradition; because its use is justified not on its merits relative to the situation at hand but by its time-honored acceptability, reputation, and ease of access or availability.

However, in many complex situations such as food

deserts and conditions such as food insecurity, a multitude of factors potentially influence the behavior of individuals or the choices they make. In such instances, there is far more information available to the actor than may be necessary for making a decision at any particular moment (satisficing). The actor uses his common-sense knowledge of the situation to determine the information relevant to the action he proposes to take. The observer of behavior also faces a similar situation, one that is also replete with information. In this situation, however, the observer cannot know for sure what pieces of information is relevant, that is, what information the actor actually used in making his decision. He too relies on his common-sense knowledge to surmise the relevant information. Alternatively, he may ask the actor to tell him about the information he used. The problem here is twofold. First, although the actor is more conversant with the relevant pieces of knowledge than the observer is, still he may not be able to articulate at any instance all the knowledge he acted on. Second, the observer may use his common-sense knowledge to figure out the relevant information used to drive decision or behavior. However, given the vast quantities of information available to the actor in any decision-making context, it is difficult for the observer to know which piece of information is relevant (the information actually used) to the decision situation of the actor.

Additionally, certain relevant information may not be accessible to analysis via or common-sense driven models. For example, potential interaction among one or more factors or features of the situation. That is, it is not possible to account for the results we observe in terms of the properties of individual features of the situation or the individual; the whole is greater than the sum of its parts and qualitatively different from the separate parts. Just as it is impossible to account for the overall function of the brain by studying individual neurons in exhaustive detail. Nor is it possible to assess the nutritional status of food desert residents by studying separately and in detail the carbohydrate content of his breakfast or just his breakfast. In the same way, the observer cannot possibly account for behavior just in terms of the features of the individual and his situation. Nutritional status and eating habits are emergent phenomena of complex socio-economic and physical systems; they are the manifestation of many interacting features of individuals and the overall environment. Thus, our ability to access all the information that may be relevant to any situation is difficult or may be impossible using current methods –surveys, focus groups, listening sessions or even experiments as standalone approaches.

The fact is questions regarding the choices we make

and why we make them and our efforts to influence people through various means to make different choices dominate social science discourse¹. Moreover, we build our models of reality on the foundation of preferences, incentives, opportunities and motivation related to the features of the individuals and their environment. We derive our common-sense knowledge and intuition from these models. However, although these models bring clarity and order to our thinking, they do not fully represent the reality we deal with and may not be able to do so. Our models do not sufficiently account for the frame problem—identifying all the relevant features from among the multitude of features in a situation. Nor do they account for the micro macro problem that emergence represents¹. In this light, our common-sense knowledge suffers from server blind spots that lead to errors when we rely on common sense judgement to deal with novel and complex situations outside of our own behavior and circumstances.

Therefore, relying too much on applying common sense to understand and find solutions to common but complex problems such as anticipating or managing the behavior of large number of people is fraught with errors. In these situations, many relevant features lie beyond our conscious cognition. Additionally, of the several features that may be within reach of our senses, it may be impossible to tell which is relevant to the situation based on common sense judgement alone. For example, our research project conducted in a food desert, community leaders fervently believed that providing a grocery store in the food desert neighborhood in Eastern Greensboro would flourish because of the high level of patronage it would receive from community members who would now have access to essential and high-demand grocery supplies. However, the cooperative grocery store, Renaissance Coop Grocery Store, closed within a year of opening for lack of patronage. Obviously, the usual market research and feasibility study failed to foresee this outcome. It remains an open question why low-income people who live in a food desert failed to support the Coop Grocery Store. After all, the Coop provided access to fresh fruits and vegetables, other essential food items, and household items not available to them in the community prior to the establishment of the Coop Grocery Store. In addition, many of them are members of the Coop. Even without market research data, it seemed clear from common sense reasoning that it would be in the interest of residents to support the Coop but they did not. One thing is certain, the decision model employed to justify establishing the Coop ignored relevant factors that were determinants of success or it failed to recognize them because they existed outside the theory and logic of the model.

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Another example of the application of common-sense reasoning was the decision to use Coop Grocery Store issued gift cards as incentive for participating in nutrition education workshops instead of gift cards issued by the State Employees Credit Union. Even though both gift cards had similar features and carried the same face value, workshop participants preferred the credit union issued cards. In the eyes of the participants, the credit union issued cards were more valuable because participants could use these cards anywhere to purchase goods and services, where as participants could only use the Coop Grocery Store issued gift cards at the Coop. The decision to use Coop issued gift cards resulted in a fall in attendance because these cards lost some of their incentive value. The decision to use Coop issued gift cards seemed reasonable because it encouraged participants to support the Coop but it had an unanticipated negative impact on participation in the nutrition education workshops. This is a classic example of common-sense reasoning. It is the type of reasoning we apply in our attempt to solve a problem based on knowledge of a simple aspect of the problem or incomplete understanding of a situation rather than the complex connection of the problem or situation to many other things.

The fact is low income people by definition have a very small income so the value of, say, an incentive to them increases as the options available to them for spending it increases. So, in order to get the maximum impact from the incentive, participants should receive gift cards they can spend anywhere. This latter approach to reasoning is counter intuitive given the context of the decision-making--the immediate goal is to increase patronage for the Coop Grocery Store. Community leaders see the gift cards paid to participants as an easy way to do this, and at the same time, participants would be supporting a venture in which they are part owners. These are obvious, logical, easily accessible and valid reasons for giving participants Coop issued gift cards. However, providing gift cards with options to use them anywhere would increase their incentive value to the participants and boost attendance at workshops, but this line of reasoning was outside of the prevailing common-sense model.

Watts cited the difference in organ donation rates between Austria and Germany due to the default opt out policy prevailing in Austria and absent in Germany, as an example of an explanation that eludes the traditional social

science model. Differences between both countries based on easily accessible information about costs and benefits, incentives, preferences and attributes would not have explained the difference in donation rates between both countries. In applying our models, we forget their inherent fallibility and proceed to apply them as if they were perfect representations of the reality we seek to address. We fail to acknowledge or leave room for the emergent solutions; we do not deliberately look for opportunities to learn from the feedback generated by the portion of reality outside the model as we conduct a study or implement a project.

Social systems represent the archetypal complex system. The nonlinear interactions among inter dependent components and individuals amplify small random oscillations to produce unpredictable outcomes, making it difficult for stable patterns to become manifest. A useful way to look at complexity is in terms of the amount of the observable variations we are able to explain. For example, in a complex social system, models only capture a small portion of the variation we observe; our models are simple relative to the system variation it is attempting to capture. Whereas a system is simple, as in physical systems, because complex models are able to capture most or all of the variation we observe. Given the unpredictability of complex social systems, and the fact that models capture only a small part of the variation, there is a lot that we do not understand. Therefore, we should avail ourselves of the opportunity to learn as we carryout research and development projects. This means instead of looking for definitive answers we should be prepared to engage those whose behavior and circumstances we are attempting to study and improve by co-creating, designing, prototyping, experimenting, testing and refining solutions in an iterative process in order to maximize learning opportunities. Because in complex systems problems do not remain solved, given the emergent properties of these systems, the types of projects that purport to seek and develop a definitive scalable solution is antithetical to the reality of complex social systems.

References

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