

In Partial Fulfillment of the Requirements for the Degree of

## Doctor of Philosophy Andrew Berardy

Will defend his prospectus

## Understanding, Evaluating and Predicting Sustainable Food Consumption

## Abstract

Existing dietary life cycle assessments (LCA) conclude that plant-based diets are less harmful to the environment than diets including meat. However, these LCA's ignore the processed alternatives available to consumers which may be more impactful due to additional energy used in processing. According to the literature, sustainable food must support ecological improvement, social justice and economic prosperity without compromising the goals of the food system. LCA allows comparison of the environmental impacts from foods such as land use, water use, energy use and greenhouse gas emissions to find a preferable alternative. Even with increases in efficiency of food production, it is reasonable to expect a rebound effect in which as costs drop, overall consumption increases due to market expansion brought on by lower prices. In this way a less damaging option does not automatically equate to sustainability – reduced overall consumption is necessary as well. Therefore it is necessary to understand what predicts and motivates sustainable food consumption behaviors. Although there is work attempting to analyze and shape consumer behavior, it neglects the role of expertise, which is necessary for consumers to navigate the competing claims of sustainability from various products. These behaviors are influenced by some of the same factors that help consumers make decisions regarding other products. Thus, food systems embody a larger set of generalizable issues present in sustainable consumption. In this proposal, I suggest a multi-faceted approach to improving understanding of sustainable food systems and consumption behavior. First, I plan to examine the sustainability implications of a plant-based animal protein substitute through assessing its environmental impacts. Second, I seek to understand how consumers develop the expertise necessary to make informed decisions regarding sustainable food consumption by analyzing vegan practices and perceptions. Finally, I critique existing behavioral models and supplant these with a new model synthesizing

previous behavioral research with my new findings. To investigate these three lines of inquiry, I propose the following: An assessment of the life-cycle environmental impacts of a processed plant-based animal protein substitute; Use of TURINEX (Test of Ubiquitous through Real or Interactional Expertise) to gain insight into the role of expertise in vegans' decision making and how perceptions of vegans play a role in the decisions of vegetarians and omnivores; A literature review of recognized behavioral models culminating in a synthesis of these models with new findings from my research.

> Monday, November 4, 2013 9:00am ISTB4, Room 396

Faculty, students, and the general public are invited.

Supervisory Committee: Dr. Thomas Seager, chair Dr. Christine Costello, member Dr. Mark Hannah, member Dr. Christopher Wharton, member Dr. Amy Landis, member