

A situated study of plant-based meal choices of urban citizens

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The transition towards a more circular urban food system depends on large-scale changes in citizen behavior with one of these changes being the transition to plant-based protein consumption. Whether individuals engage in pro-environmental behaviors like choosing plant-based protein is often explained based on interindividual variation such as differences in peoples' pro-environmental values, beliefs and norms. However, although many people state to highly value the environment, they often do not act according to their values. An assumption of why this value-behavior gap exists is that the influence of motivational factors on pro-environmental behavior is moderated by people's abilities and situational opportunities. Situational factors include both factors related to intraindividual variation such as individual's affective state as well as factors related to contextual variation such as physical and social factors. Indeed, prior studies found that meal choices are not a static phenomenon, but rather influenced by time-varying covariates that facilitate or hinder behaviors in the situation of choice. For example, Hoek et al. (2021) found in their literature review that food choices are significantly influenced by food outlets such as the availability of plant-based meals. Moreover, affective states like people's mood have an influence on people's general perception and behavioral motivation. Therefore, Onzwezen et al. (2021) also call for research on the effect of affective state on protein choice. However, the concrete impact of situational factors on repeated pro-environmental protein choices is not yet understood. Therefore, this study applied an ecological momentary assessment in November 2022 and collected data of urban citizens meal choices in varying affective states, physical and social contexts (N=90). First, participants were provided with a baseline survey measuring their pro-environmental values, social norms, self-regulation ability, and demographic variables. The second part entailed a three-week ecological momentary assessment (EMA) study. During this time period, participants received a prompt on their smartphones once a day at 14 out of 21 days. The assessments were conducted by using a data collection app. Participants were recruited in the wider Amsterdam Metropolitan region in cooperation with Flycatcher Internet Research. All participants gave written informed consent and were paid 10 Euros after successful participation in both the baseline and EMA survey. Using the data reported from participants daily, we conduct a series of regression analyses. As we follow participants during 10 to 14 days, we can explore time-constant between-person effects (values, self-control) and time varying within-person effects (mood) and situational effects (physical and social). Data analysis will advance our understanding of how stable trait-like values, personal abilities and varying situational factors interact in driving pro-environmental protein choices. Moreover, the results of this project will give practical recommendations about how to accelerate the protein transition.