The Role of Positive Spontaneous Thoughts in Predicting Future Intake of Fruits and Vegetables

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Introduction

**Hypothesis:** The occurrence of positive spontaneous thoughts can act as a mediator between the positive affect experienced during consumption of fruits/vegetables and improvements in future fruit/vegetable intake.

The Upward Spiral Theory of Lifestyle Change (Van Cappellen et al., 2018) postulates that positive affect during a health behavior leads to nonconscious motives like incentive salience to further increase the future continuation of the health behavior. In a previous study, positive affect experienced during physical activity was shown to increase the frequency of positive spontaneous thoughts, and in turn, the frequency of physical activity (Rice et al., 2020).

Positive spontaneous thoughts are a measure of nonconscious motives. They are a component of incentive salience, which refers to motivation driven by reward.

Methods

228 participants were recruited from the Triangle Area to participate in this study (range of age: 35 to 64). Demographics of participants were 4.9% Asian, 17% Black, .4% Indigenous, 78% White; 62% women; $65k median household income.

*denotes shared first authorship

Results & Discussion

Each pathway indicates significant correlations between each variable. Positive affect can predict fruit and vegetable intake, but positive spontaneous thoughts are not a significant mediator between the two variables.

This provides loose support of the Upward Spiral Theory of Lifestyle Change. Even though the mediation path was not significant, positive spontaneous thoughts did predict future consumption. Limitations of the study may be attributed to the difficulty of measuring nonconscious motives. Participants may have variability in their self-awareness of their positive spontaneous thoughts. Additionally, there is no discrete method for measuring nonconscious thoughts on a quantitative scale. Culturally different foods as well as personal preference may have also created barriers that could have affected participants’ interpretations of questions about spontaneous thoughts and about nutritious meals.

In a future study, it might also be beneficial to look at whether any of our predictor variables decrease negative health behaviors (i.e., eating junk food), since our results do not necessarily imply that negative health behaviors stop when positive behaviors increase. Overall health is improved when individuals both increase positive behaviors and decrease harmful health behaviors.

References


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**Mediation Model**

This model represents the indirect effect of positive affect experienced during intake on future fruit and vegetable consumption, as mediated by positive spontaneous thoughts.

- **a path** \( p = .000 \)
- **b path** \( p = .043 \)
- **c path** \( p = .000 \)
- **Indirect, path c’** \( p = .069 \)