Impact of negative affect on eating behavior: verification of two potential pathways in laboratory and ecological settings

STATE THE OBJECTIVE OF THE PROJECT

Negative affect can influence typical eating behavior in two ways: (1) negative affect increases craving for tasty foods which are often unhealthy, high-energy density foods (Drewnowski, 2007, 2009) which indicate that people use tasty, highly rewarding high energy-density food as a way of decreasing negative affect and (2) negative affect impairs top-down control over behavior which is often required for choosing healthy, low energy-density foods and nutrients that are essential for a healthy diet (Maier, Makwana and Hare, 2015). Few studies have attempted to dissociate these two potential pathways, and their respective contributions to maladaptive eating behavior remain unknown. The proposed research aims to provide a more detailed understanding of *how* negative affect leads to maladaptive eating behavior (by which pathway) and assess the relative contribution of each to maladaptive eating behavior.

THE RESEARCH TO BE CARRIED OUT

The research project is designed with experimental methodological approaches: the laboratory study (Laboratory Assessment I and II) and the Ecological Momentary Assessment (EMA) (Figure 1). Three hundred three adults (female and male) will participate in the proposed study.

	After 1-4			After		
T0	days ★★	T1	1 day	T2	2 weeks	Т3
				,		
Online assessment	Lat Asse	oratory ssment I		EMA		Laboratory Assessment II
Assessment of demographic variables and individual differences	Asse dietas tasl patt	ssment of cy-making c, eating erns, and body uposition	Ass da b ma eatin rum neg	sessment of ily dietary ehaviors, aladaptive ng behavior, ination and ative affect		Assessment of dietary decision- naking task <i>under</i> <i>igh negative affect</i> <i>conditions</i> as well eating patterns
Time: 1 hour	Time	e: 3 hours	Tin	ne: 2 weeks		Time: 3 hours

Figure 1. Procedure's description

We will use state-of-the-art multi-method approaches (self-report, mouse-tracking, EMA, Bioelectrical Impedance Analysis) as well as gold-standard field assessment (Automated Self-Administered 24-Hour Dietary Assessment Tool which provides a detailed analysis of the nutrients in all the foods and beverages a person has consumed in the past 24 hours).

CHOOSING THE RESEARCH TOPIC

The present research project will provide a solid theoretical basis concerning the effects of negative affect on maladaptive eating behavior. It will provide both theoretical and empirical background in an area of great significance in the public health sector, which may be a solid basis for the further development of applied research on affect regulation and eating behavior. Due to the fact that research will be carried out in Poland and United States it will be also possible to compare the impact of negative affect on eating behavior in laboratory and ecological settings in multicultural perspective. Although this project is focused on basic research (developing a fundamental, theoretical knowledge), it is a necessary step before being able to develop an intervention on improvement of maladaptive eating behavior through reduction in negative affect.

The research project will be carried out in cooperation with an internationally renowned expert in the field of emotion regulation, Prof. James J. Gross from the Stanford University (USA). This research project will establish a new research team (from Eating, Behaviours and Cognitive Processes Interdisciplinary Laboratory at the SWPS University and Stanford Psychophysiology Laboratory) opening the possibility for the further international cooperation on this subject that is crucial to public health.