NASIC: Neural Activation of Social Influences and Colour

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Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Lifestyle issues
Study type	Observational invasive

Summary

ID

NL-OMON42988

Source
ToetsingOnline

Brief title
NASIC

Condition

- Lifestyle issues

Synonym
not applicable

Research involving
Human

Sponsors and support

Primary sponsor: Wageningen Universiteit
Source(s) of monetary or material Support: NWO

Intervention

Keyword: Colour, Consumer choice, Food, Social Influence

Outcome measures

Primary outcome

Experimental task 1: The main study parameter is the difference in brain activation when (1) evaluating packages containing information on popularity or not, and (2) when indicating purchase intention between conditions.

Experimental task 2: The main study parameter is the difference in brain activation when evaluating packages containing different colours (signalling healthiness or attractiveness) combined with tasting.

Secondary outcome

The secondary parameters used in the study are correlations between the behavioural data (obtained via questionnaires) and the brain data (obtained during the scan session). This is applicable for both tasks.

Study description

Background summary

The current study examines the effectiveness of nudges, defined as subtle rearrangements of the choice context, to gently suggest food choices. At the point of choice and/or purchase, extrinsic factors (e.g. package, brand, social environment) are leading determinants since intrinsic (sensory/nutritional) factors cannot be evaluated properly at this stage. The visual system (e.g. used when viewing packaging) is the most important information source/sense for product evaluation at the buying stage. Here, we focus on these visual, external cues; popularity and package colour, as potential nudges to influence product perception and suggest better food choices. A significant portion of the choices consumers make are influenced by social others. Consumers look at others for what car to buy, what to wear, and what to buy in the supermarket. Similarly, packaging has also been shown to influence choice and product

evaluation. At a neural level, such effects have not been extensively studied. Yet, more insights into the neurophysiological nature of the effects would enhance the development of strategies aimed to stimulate more healthful nutrition and lifestyles.

Study objective

The study aims to extend current insights into the effectiveness of nudging by examining neural correlates in two specific areas important for choice architecture; the role of social influences, and the role of colour cues in product evaluation and choices.
The objective of the experiment is (1) to disentangle the pieces of information consumers take and use from noting popular choices, and (2) to investigate if packages that signal healthiness or attractiveness (through colour) influences brain activation when consequently tasting.

Study design

The study consists of an fMRI experiment, comprising two adjacent tasks. First, participants are asked to evaluate different food products and express their purchase intention of these products. Products are displayed throughout three different conditions: a neutral condition, an informational social influence (ISI) condition and a normative social influence (NSI) condition. Second, participants will view images of product packages (differing in colour) and taste sweet dairy drinks. Participants are instructed to (P) pay attention to an image/package and answer questions (e.g. healthiness and attractiveness rating) and after this (T) pay attention to an image and consequently tasting and answering questions while their brain activation is measured using functional MRI.

Study burden and risks

The study is non-therapeutic to the participants. No immediate benefits for the participants are expected from participation in this study. The risk associated with participation is negligible. The participant*s burden is as follows, regarding time: a screening session and training session (approx. 120 min) to inform and familiarize participants will be conducted. After this an fMRI scan session (approx. 100-120) is executed. To undergo an fMRI scan involves: exposure to loud noise, a moderate amount of physical restraint, as well as exposure to a strong magnetic field (3 Tesla) of which the participant is unaware, that is, participants do not *feel* being in a magnetic field. During the scanning session participants will receive taste stimuli, administered in liquid form. If the participant is uncomfortable with any aspect of the procedure the study will be terminated.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

* Age: 18 - 35 years
* Female
* Dutch
* BMI: 18.5-25 kg/m2
* Healthy (as judged by the participant)
* Right handed
* (Occasional) users of the used product category (dairy drinks)
* Minimum of 5 consumption occurrences a year (e.g. Vifit, Optimel, Breaker).
* Successful completion of the training session (see C1: 8.4.2 Training session)

Exclusion criteria

* Colour-blind
* Having difficulties with tasting, smelling, swallowing or eating
* Weight loss or weight gain of 5 kg or more during two months (preceding the screening session)
* Stomach or bowel diseases
* Diabetes, thyroid disease, kidney disease and other chronical disorders
* Having epilepsy or other neurological disorders
* Having claustrophobia, schizophrenia or another mental illness
* Usage of daily medication other than oral contraceptives, paracetamol or H1-antihistaminergic drugs
* Pregnancy during the last 6 months, having the intention to become pregnant (before the end of the experiment) or lactating
* Smoking on average more than one cigarette/cigar a day
* Being allergic/intolerant for products under study
* Having a history of or current alcohol consumption of on average more than 21 units per week
* Working or doing an internship/thesis at the Department of Human Nutrition (WUR)
* Working or doing an internship/thesis at the Department of Marketing and Consumer Behaviour (WUR)
* Current participation in other (medical) research (except the EetMeetWeet study)
* Having a contra-indication to MRI scanning (including, but not limited to):
* Pacemakers and defibrillators
* Intraorbital or intraocular metallic fragments
* Ferromagnetic implants
* Presence of non-removable piercings
* Having objections against being informed about incidental findings of pathology and against the general physician being informed about incidental findings of pathology (see F1 Inclusion questionnaire)

Study design

Design

Study type: Observational invasive

Masking:	Single blinded (masking used)
Control:	Uncontrolled
Primary purpose:	Other

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	17-10-2016
Enrollment:	30
Type:	Actual

Ethics review

Approved WMO

Date:	10-10-2016
Application type:	First submission
Review commission:	METC Wageningen Universiteit (Wageningen)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

ID: 20259
Source: NTR
Title:

In other registers

Register	ID
CCMO	NL58193.081.16
OMON	NL-OMON20259