## **NASIC**

No registrations found.

**Ethical review** Positive opinion

**Status** Pending

Health condition type

**Study type** Interventional

## **Summary**

#### ID

NL-OMON20259

**Source** 

NTR

**Brief title** 

**NASIC** 

#### **Health condition**

Social influence

Colour

**Associations** 

**Popularity** 

Taste

Choice

Healthiness

Attractiveness

### **Sponsors and support**

Primary sponsor: Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NWO grant

number: 057-13-001)

Source(s) of monetary or material Support: not applicable

### Intervention

#### **Outcome measures**

#### **Primary outcome**

Experimental task 1: Social influences

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: Colour cue

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**

Secondary parameters Social influences

The secondary study parameter is to assess the use of (brain) activity coefficients as mediators in choice prediction model.

Secondary parameters Colour cue

The secondary study parameter is the difference in brain activation when evaluating packages containing different colours (signalling healthiness or attractiveness) without tasting. We are also interested in the difference in brain activation when evaluating our commercially available dairy drink, or enhanced/diluted dairy drink.

## **Study description**

#### **Background summary**

Rationale: 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.

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 population: The study population consists of 30 apparently healthy, right-handed, normal BMI, women between the age of 18 and 35 year.

Main study parameters/endpoints: 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.

#### Study objective

We believe we can extend current insights into the effectiveness of nudging by examining neural correlates in two specific areas important for choice architecture; the role of social influence, and the role of color cues in product evaluation and choices

#### Study design

not applicable.

#### Intervention

fMRI experiment where participants see and taste supermarket products

### **Contacts**

#### **Public**

Afdeling Humane Voeding, Wageningen University

Irene Tijssen Wageningen The Netherlands

Telefoon: 0317-485979

**Scientific** 

Afdeling Humane Voeding, Wageningen University

Irene Tijssen Wageningen The Netherlands

Telefoon: 0317-485979

# **Eligibility criteria**

### Inclusion criteria

• Age: 18 - 30 years old

• BMI: 18.5 - 27 kg/m2

- Healthy (as judged by the participant)
- Being right handed
- Users of the used product categories (e.g. dairy drinks) at least 5 consumption occurrences a year.
- Willing to comply with the study procedures
- Willing to be informed about incidental findings of pathology

#### **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 or lactating
- Smoking on average more than one cigarette/cigar a day
- Being allergic/intolerant for products under study
- 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 history of or current alcohol consumption of on average more than 21 units per week
- 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)
- 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 metal objects in the mouth
- Presence of non-removable piercings

## Study design

### **Design**

Study type: Interventional

Intervention model: Other

Control: N/A, unknown

#### Recruitment

NL

Recruitment status: Pending

Start date (anticipated): 01-09-2016

Enrollment: 27

Type: Anticipated

### **Ethics review**

Positive opinion

Date: 15-06-2016

Application type: First submission

# **Study registrations**

### Followed up by the following (possibly more current) registration

ID: 42988

Bron: ToetsingOnline

Titel:

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

No registrations found.

## In other registers

Register ID

NTR-new NL5745 NTR-old NTR5899

CCMO NL58193.081.16 OMON NL-OMON42988

# **Study results**