

Stereotyping affects us all!

(But are we aware of it..?)

How to setup the match-guise experiment

In order to guarantee a successful outcome of the match-guise experiment - a number of key aspects have to be identified. Such key aspects are necessary for the exposure of the stereotype in question, and for finding inducers that trigger a stereotypical response.

Define objectives What are the hypotheses and what would be a successful outcome? Are there specific stereotypical assumptions that are to be challenged?

Analyze objectives Identify ways to expose the stereotype in question i.e. inducers that trigger stereotypical responses. Evaluate the target field with the help of expertise and accrued knowledge from prior experiments. Consider any ethical issues.

Analyze context Analyze technical constraints and/or possibilities. Other aspects include the physical facility as well as the specificities within the targeted student group.

Specify experiment details Specify and refine a credible "package" that is likely to achieve the identified objectives. Important decisions include: a plausible conversational topic, type of character(s), their attitude and conversational style (e.g. aggressiveness, dominance, submissiveness, monologue or dialogue). Specify guidance to teacher on how to contextualize the experiment for maximum impact. Decide on use of cues such as images, sound or videos.

Specify response questionnaire Develop, or select an existing, response questionnaire adapted to students' knowledge levels, experiences and the demographic makeup.

Production of Master Recording

The production of a believable case involves several stages. Not only does the manuscript have to be believable in the context it is going to be used, but 'actors' have to be selected on the basis of their voice qualities, and acting skills. Then there is the recording and editing.

Select voices Considerations here include choosing a number (10-15) relatively neutral voices, but which also have to have clearly distinguishable male/female characteristics. Accent and fluency aspects are also considered.

Test voice morphing qualities Short recordings of selected voices are digitally manipulated in order to establish how the quality of voices respond to morphing.

Evaluate voices Selection of viable voices (how they respond to morphing) by research team and outside informants using anonymous response surveys. Best voices are selected.

Pilot production Pilot recordings to establish tone of the conversation, 'acting', etc. with the aim to create a credible case.

Record and edit Record entire dialogue, re-record parts that do not work, edit pauses, unwanted sounds etc. Voices recorded separately in studio environment

Evaluate master recording Test credibility of case dialogue using outside respondents. Re-work parts that are unsatisfactory.

Digital Manipulation

Achieving believable voice-morphing (i.e. digitally transforming male voice qualities into female qualities and vice versa) is arguably the most important element in our entire method. This part of the process does not only involve complex sound editing of the original recordings, but also the creation of a sound-landscape which 'camouflages' unavoidable shortcomings.

Applying overall morphing qualities During this stage we apply a selection (3-4) of overall morphing settings to the separate sound tracks of person A and B in the dialogue. This creates a number of recording versions of varying pitch and timbre.

Evaluation and Selection The research team with the aid of outside respondents then select the most viable variants of the recordings.

Identifying and repairing problem sections Applying general settings for the morphing qualities to the entire recording does not take care of extreme ends of the sound spectrum. Sounds such as high pitched laughter, grunts, groans, or raised voice levels often result in odd sounds when morphed. Such instances thus have to be identified and edited individually to modify extremities. The recordings are then re-evaluated.

Production of 'soundscape' This part involves the addition of the soundscape relevant for the particular case. It can include the adding of background noise such as traffic, for example, but also altering the entire sound quality to resemble that of a Skype or telephone call, all dependent on how the case is contextualised.

Assess and evaluate credibility In this last stage we again use outside respondents to assess the overall impression of the recording. Potential shortcomings are repaired, re-evaluated and the case is now ready for use in the matched-guise experiment.

Overall project framework
Using digital media, the RAVE project builds on traditional 'matched-guise' methodology from sociolinguistics with the aims to explore and develop innovative methods for raising subjects' awareness of their own linguistic stereotyping, biases and prejudices, and to systematically explore ways of testing the efficiency of these methods.

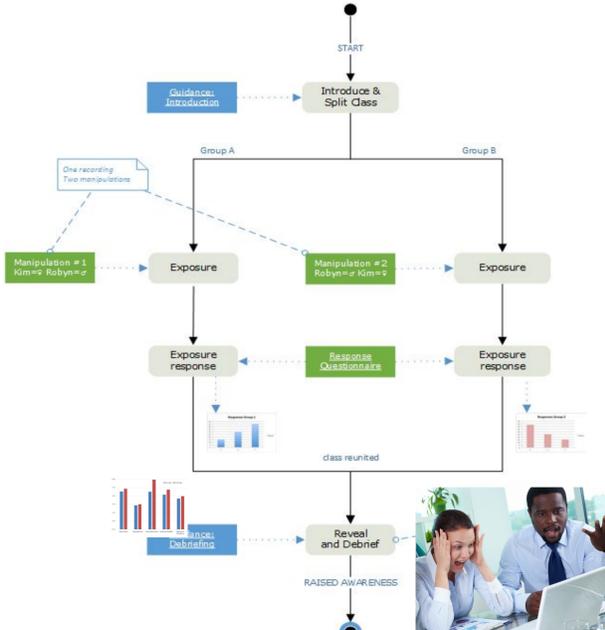
What is matched-guise methodology?

In a matched-guise set-up, the same text (spoken or written) is produced in two or more variants, where the manipulated variable is the perceived identity of the 'speaker'. The method has been used to show how the perceived identity of the 'speaker' influences how we judge the person as well as the text. For example, the same CV may be evaluated very differently depending on whether the name on the CV is of European or Middle Eastern origin.

Target groups and overall method

The primary target groups in RAVE are students who study on professional programs where human contact is in focus, such as teacher training, psychology, sociology and medicine, and RAVE methodology has been embedded into existing courses in programs. The design of each case study is thus adapted to the particular course context it targets. Several factors have to be taken into account when producing a case. Important principles are that students must be unaware of the real purpose of the experiment, the case must appear to address relevant issues related to the specific course context, and the entire setup must of course feel believable and authentic. The overall packaging is hence crucial. Once the case is produced, a class is split in two groups. Each group listens to one variant of the text and are asked to respond to various evaluative statements (on text content and the speaker/s). The class is then reassembled, the design and real purpose of the case is revealed, and students can see for themselves how responses of the groups differ. This subsequently constitutes the starting point for seminar discussions (debriefing). To date, we have primarily been working on gender cases, where we have used audio editing tools to manipulate voice quality to 'morph' male voices into female voice and vice versa.

Figure 1. Schematic outline of the overall workflow of the project methods

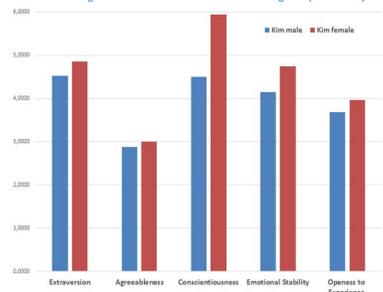


Some results

An example - RAVE in Personality Psychology: In collaboration with two teachers in psychology, we implemented the RAVE methodology in a course in Personality Psychology in order to help them improve the quality of seminars discussing gender perspectives.

It is crucial for psychologists to bear their own stereotypical assumptions in mind when talking to clients. Gender behaviour is one such example. In order to raise students' self-awareness, an experiment was run at the end of a course in Personality Psychology. Two groups of students listened to the same four scenes featuring two students in their twenties collaborating on a task. These mixed sex-conversations were voice-morphed so that the perceived genders of the actors were flipped. The students in the two groups were then, among other things, asked to rate the personality traits of one of the actors, "Kim". The students' ratings of "Kim" revealed differences between the groups which served as starting points for discussions in the following debriefing session. The students' comments in subsequent evaluations revealed that they found the results of the exercise surprising and the discussions enlightening.

Students' ratings of the student "Kim" in terms of Big five personality factors



Comments from students after debriefing

- A fun exercise, I think I will consider additional factors surrounding gender which I might have overlooked previously.
- I did learn some surprising things regarding preconceptions about gender.
- I was surprised that there is such differences between interpreting people's behaviours by their gender. I learned that cultural aspects affect people's thinking a lot.
- No, not really, I mainly just had my negative prejudices about gender research and gender studies confirmed.

Language is at the heart of the mechanisms leading to stereotyping and inequality. It is easy to point fingers, but we are subconsciously all part of the same structures. We have to become aware of this if we want to change things. Through experiential methods using digital identity morphing, RAVE tries to do just that - raise awareness of how linguistic stereotyping affects us all.

Preparing a voice-morphed match-guise case

The production of a match-guise case is a complex process involving several steps

