Can emoticons detect deception? (#8131)

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Created: 01/31/2018 02:44 AM (PT)
Public: 07/25/2018 04:11 AM (PT)

1) Have any data been collected for this study already?
No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?
Are the type and frequency of emoticons different when people lie on WhatsApp compared with telling the truth?

3) Describe the key dependent variable(s) specifying how they will be measured.
Emoticons used in lies will be analysed for type and frequency compared to emoticons used in truths.

4) How many and which conditions will participants be assigned to?
There will be two within conditions in the study. Every participant assigned to both conditions, the truth condition and the lie condition. They are asked to send in screenshots of three lies and three truths that they told via WhatsApp.

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.
To test differences between the amount of emoticons used when lying compared with telling the truth, an repeated measures ANOVA will be conducted with lie condition (yes vs. no) as an independent variable and number of emoticons as dependent variable.
To test which type of emoticon is used most when lying compared with telling the truth, an repeated measures ANOVA with type of emoticon as independent variable and frequency of emoticons as dependent variable. The categories of emoticons are strong positive emoticons, weak positive emoticons, strong negative emoticons, weak negative emoticons, neutral emoticons, strong surprise emoticons, and weak surprise emoticons.
Furthermore, two extra analyses will be conducted in which both repeated measures ANOVAs will be done again but the amount/frequency will be corrected for number of words in response.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.
The volunteers participating in this study have to meet several requirements. These requirements included that they have to be 18 years of age or older and living in the Netherlands or in Germany. The participants have to understand English, because the study will be done in English. If participants declare that their English skills are less than ‘Average’ (on a 5-point-Likert-Scale from ‘Excellent’ to ‘Terrible’), their data will not be included in the analysis. Furthermore, participants are free to choose between German, English and Dutch writing in their text messages on WhatsApp, which they have to use at least five times per week. If participants used the texting Application less than five times per week, their data will not be included in the analysis. Data that is given which are not answers to questions will be excluded from the analysis due to incompatible variables. Furthermore, screenshots including answers to questions such as, ‘Are you okay?’, ‘How old are you?’ or ‘How are you?’, will not be included in the analysis. There will be no other rules used for excluding observations.

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.
A power analysis with G-power showed that the optimal sample size for a paired sample with a power of .80 (1-ß), a type 1 error rate 5% and an effect size of .1 would be 620 pairs. Because each participant gives three lies and three truths the sample size is divided by three and that makes 207 participants. Because the resources of the researcher are limited and the project has a strict time limit the number of participants will be downsized to 150 participants.

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)
There will also repeated measures be done to investigate whether number of words used when lying and telling the truth may differ.