**Analysis Plan**

Statistical models

~~Multiple regressions will be computed with positive and negative affect as outcomes, and the different needs as predictors (both with the needs separately and as a composite measure).~~

~~Multiple regressions will be computed with positive and negative affect as outcome variables. The different needs (separate and composite) and touch physical characteristics will be the predictors.~~

*~~No files selected~~*

Transformations

We are not sure what sort of answers we will get to the open questions. Therefore, coding of the open questions will be based on the answers. This is true for the following variables: **Location**, **intention** and **ReasPer** .

Inference criteria

Two-tailed, p < .05 = will be described as a significant result.

Data exclusion

It will be checked whether the participants adhered to the instructions or "just clicked through the questionnaire". Participants who score the same on all measures with no variance will be removed. Similarly, if the entered data are highly implausible (e.g. i.e., constant switching between the most extreme options), the participant will be excluded from further analysis. For the regression analyses, any values outside 1.5 times the interquartile range above the upper quartile and below the lower quartile will be excluded.

Missing data

The online questionnaire requires each item to be answered, so no missing data will be possible as long participants finish the online form. Incomplete online forms will not be processed any further.

Exploratory analysis

Analyses with positive/negative affect as dependent variables:

\* ~~Analysis of variance will be used to investigate if participants who reported a positive touch experience reach higher values of positive affect and lower values of negative affect than participants who reported a negative touch experience.~~

\* The relationship between psychological touch characteristics (e.g., pleasantness, comfort), relational characteristics (e.g., closeness to the interaction partner), cognitive factors (e.g., assumed intention of the touch, expectation) and positive and negative affect will be explored (correlations). Analyses with need fulfilment as dependent variable(s):

\* We will try to categorize the open answers on touch situation, touch type, etc. to find out if certain situations, touch types etc. lead to higher need fulfilment than others.

\* We will explore how sensory characteristics of the touch (e.g. humidity, intensity), psychological characteristics of the touch, relational characteristics and cognitive factors relate to need fulfilment (separate and composite measure). This will be done with correlations followed up by regressions.

\* Analyses of variance will be used to investigate how need fulfilment (separate and composite) differs for positive and negative touch events. Other exploratory analyses: Logistic regressions will be computed to explore if needs and touch characteristics can predict if the participant reported a negative or a positive touch event. In case of a null result (i.e. if one of the needs predicts positive or negative affect), a Bayes factor will be included for the primary analysis (needs as predictors of positive (PA) or negative affect (NA).