Background:
Online dating websites and location-based dating apps like Tinder have changed the ways of human mating detrimentally (Finkel, Eastwick, Karney, Reis, & Sprecher, 2012; Ward, 2017). As a consequence, the initial familiarization of potential lovers turns more and more away from face-to-face (ftf) towards text-based computer-mediated communication (cmc). However, in cmc sender and receiver are no longer co-present and the rich cues of spoken language are heavily reduced (Koch, Mueller, Kruse, & Zumbach, 2005). The reduced-social-cues/cues-filtered-out approach assumes that cmc, because of the reduced cues, is inferior to ftf communication (Sproull & Kiesler, 1986). On the other hand, the hyperpersonal communication approach argues for advantages like the enhanced self presentation abilities that cmc offers (Walther, 1996). In this field of unresolved tension we wanted to answer the question whether and, if so, how humans (receivers) use linguistic cues to make personality judgements about their chat partners (senders). As underlying theoretical framework we use Brunswik’s (1956) lens model which sees linguistic cues as a kind of lens through which receivers perceive the personality of a sender (Back, Schmukle, & Egloff, 2008).

Methods:
We conducted a two-step study. In the first step, we advertised an online questionnaire in local Facebook groups. The questionnaire assessed relevant personality dimensions (Big Five, Sexy Seven, Sensation Seeking, Sociosexual Orientation, IQ) and included an invitation to cmc speed dating sessions at our laboratory. This yielded a sample of 189 participants (100 females, $M_{age} = 27.81$ years, $SD_{age} = 7.77$ years). The second step consisted of up to four computer-mediated, eight-minute-long speed dating sessions (1v1, therefore a maximum of eight participants per session). 58 participants followed our invitation (29 females, $M_{age} = 26.59$ years, $SD_{age} = 6.05$ years). Participants rated their respective chat partner after each session on a shortened version of the questionnaire from step one. We saved the chat protocols of each session and analyzed them for linguistic cues using the software Linguistic Inquiry and Word Count (LIWC).

Results:
Among others, the more women used the personal pronoun “I”, relative to their written text, the less extroverted ($r = -.51$) but the more neurotic ($r = .54$) and the less intelligent ($r = -.51$) they were. Further the number of signs written by men correlated with their intelligence ($r = .54$). The relative use of “I” correlated negatively with men’s sensation seeking ($r = -.56$) and the relative use of the word “you” correlated positively with agreeableness ($r = .51$, all $p < .006$). More results are provided in the handout.

Discussion and Conclusions:
The presented correlations should be viewed with caution because the number of calculated correlations without alpha adjustment yields some risk of falsely rejecting the $H_0$. However adjustment of significance values posses the risk to miss important results and was therefore neglected (Perneger, 1998; Rothman, 1990). Although humans are principally capable of guessing some personality traits, first impressions allow no rightful coherent conclusion about the personality of a respective chat partner. Further the judgements are not only related to quantifiable linguistic cues but might also base on qualitative interpretations of the text content. We are currently conducting a follow up study to verify the here presented results.

References:
Rothman, K. J. (1990). No adjustments are needed for multiple comparisons. Epidemiology, 1, 43–46.