The situation is calling: Examining personality-situation fit in computer-mediated social interactions

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The data for the present project was collected in two cohorts of students (Fall 2017 and Spring 2018). Both cohorts completed exactly the same ESM surveys over the course of two weeks. In addition, both cohorts completed the Big Five Inventory (BFI; John & Srivastava, 1999) and provided demographic information.
In our first preregistration, we specified our theory-based hypotheses and analytic strategy. Because some of our research questions and analyses were novel and thus exploratory in nature, we decided to run all the pre-registered analyses in dataset 1 (Fall 2017). Now, we want to replicate the significant findings in dataset 2 (Spring 2018). This addendum serves to update our hypotheses based on the results we obtained in Study 1. We also describe some minor adjustments to the analysis strategy.

Updated hypotheses

Study 1	**Study 2**
Analysis 1	
Hypothesis 1: All modes of communication (i.e., FtF interactions, CMC, and mixed interactions) will be associated with higher momentary well-being, compared to not interacting with anyone.	Hypothesis 1a: FtF and mixed interactions will be associated with higher momentary well-being, compared to not interacting with anyone. Hypothesis 1b: CMC will not differ significantly from no social interaction.
Hypothesis 2: The relationship between different modes of communication and momentary well-being will be moderated by extraversion, agreeableness, and neuroticism.	Hypothesis 2a: The relationship between mode of communication and momentary well-being will be moderated by agreeableness, such that individuals high in agreeableness will profit more from FtF interactions and CMC, compared to individuals low in agreeableness. Hypothesis 2b: The relationship between mode of communication and momentary well-being will be moderated by neuroticism, such that individuals high in neuroticism will profit more from FtF and mixed interactions, compared to individuals low in neuroticism.

Analysis 2	
Hypothesis 3: CMC and mixed interactions will be associated with lower momentary well-being, compared to FtF interactions.	Hypothesis 3a: CMC will be associated with lower momentary well-being, compared to FtF interactions. Hypothesis 3b: Mixed interactions will not differ significantly from FtF interactions.
Hypothesis 4: Social interactions with family members and others will be associated with lower momentary well-being, compared to social interactions with peers.	Hypothesis 4a: Social interactions with others will be associated with lower momentary well-being, compared to social interactions with peers. Hypothesis 4b: Social interactions with family members will not differ significantly from social interactions with peers.
Hypothesis 5: The relationship between the interaction partner and momentary well-being will be moderated by neuroticism, such that individuals with higher levels of neuroticism will benefit more from interactions with peers, compared to individuals low in neuroticism.	/
	Hypothesis 6: The relationship between mode of communication and momentary well-being will be moderated by the interaction partner, such that CMC will be less detrimental for interactions with others, compared to interactions with peers.

Table. Updated hypotheses. / = no prediction is made.

As can be seen, Hypotheses 1-4 were modified slightly. Hypothesis 5 was dropped as neuroticism did not moderate the relationship between interaction partner and momentary well-being in Study 1. However, we found one significant two-way interaction between mode of communication and interaction partner in Study 1, which we did not predict due to a lack of literature on this topic. This interaction effect was added to the hypotheses (Study 2: Hypothesis 6).

In Analysis 3 (Study 1), we did not obtain any significant main effects of mode of communication or interaction partner, nor did we obtain significant two-way interactions. The only significant finding were two three-way interactions (TCE × family × extraversion and TCE × family × conscientiousness). Due to the scarcity of significant results, we decided not

to make any predictions for Study 2. We will still run the analyses to see if the null-effects replicate.

Data analyses

Random slopes:
Due to convergence issues, we will drop the random slopes and use random-intercepts-only models.

Control variables:
In Study 1, we noticed considerable missing data on the demographic variables (i.e., ~30%), as some students failed to complete the demographic survey. In multilevel modelling, all cases with missing data on any of the independent variables are automatically dropped from the analyses. Therefore, the inclusion of the demographic control variables greatly reduced our sample size and power. Because the three demographic control variables (sex, ethnicity, SES) did not have any significant effects, we decided to exclude the demographic control variables from all models for Study 2. The hypotheses are based on effects that were significant both with and without control variables in the models.

Mixed categories:
In the preregistration, we said that we would explore the effects of mixed categories (i.e., interactions that involved a mixture of peers, family members, and others, and interactions that involved a mixture of talking on the phone/video-chatting, texting/chatting/emailing, and interactions on social networking sites). We will do the same for Study 2 and report the results in the supplementary material. However, these analyses will not be considered part of the main analyses.

References

John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (pp. 102–138). New York, NY: Guilford Press.