The effect of momentary mood on appraisal of facial affect and distrust: An experimental approach using ambulatory assessment

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Abstract

Previous laboratory studies have demonstrated that an observer's current mood can influence their processing of facial stimuli, for instance the appraisal of facial affect. The aim of the present study was to explore the association between current mood and face processing in participants' daily lives, thereby making use of naturally occurring affective states. We employed Ambulatory Assessment (AA) and included two experimental tasks to test whether current mood predicts how participants evaluate (i) the valence of emotional faces and (ii) facial trustworthiness. We hypothesized a mood congruent processing, such that individuals would rate pictures of faces more negatively and less trustworthy, the more negative their current mood was. We recruited 42 participants who completed a 7-day AA study with six random prompts per day. At each prompt, participants provided self-reports on momentary mood and completed an emotion rating task and a hypothetical distrust game. Results show that negative momentary mood was significantly associated with higher levels of distrust, but was not significantly associated with more negative emotion ratings. We discuss the incremental value and feasibility of implementing experimental tasks in AA contexts and the opportunities this opens for assessing affective and cognitive processes in natural environments.

Keywords: mood congruency; emotion processing; distrust; ecological momentary assessment; ambulatory assessment

Introduction

The term *mood congruency* describes the phenomenon that the level of congruency between an individual's current mood and other affectively laden material influences their processing of this material. This applies to several cognitive processes, including, for instance, social judgements (Bodenhausen et al., 2001). More specifically, affective states are theorised to serve as a source of information when making evaluative judgements (Schwarz, 2011). According to this affect-as-information perspective, people interpret their current affect as a reaction to the judged object, resulting in mood-congruent evaluations. Accordingly, laboratory studies have demonstrated that positive mood resulted in more favourable first impressions (e.g., Forgas, 2011), including higher trustworthiness (Dunn & Schweitzer, 2005; Mislin et al., 2015). Moreover, people tend to interpret facial expressions in accordance with their current mood (Schiffenbauer, 1974; Schmid & Schmid Mast, 2010).

To date, mood congruent processing of faces has primarily been investigated under controlled laboratory conditions. Some of these studies assessed affective states cross-sectionally, assessing affect at a single time-point, and therefore cannot test within-person effects. Others have experimentally induced affective states using within-subjects designs, but mood induction procedures varied considerably in type and effectiveness, which likely contributed to inconsistencies between studies. Importantly, it is unclear how effects of experimentally induced mood generalize to daily life affect, which might be less intense and more complex. Only little empirical work has examined mood congruency effects in daily life, using Ambulatory Assessment (AA). Loeffler et al. (2013) were able to identify mood-congruent memory (MCM) effects, when taking into account subjective appraisals and physiological arousal. To the best of our knowledge, there are no AA studies that specifically investigate mood congruent processing of facial

stimuli, and the inclusion of experimental tasks within AA is especially rare. Therefore, we aimed to test the generalizability of mood congruency effects in natural settings. Beyond an estimation of real-life effect-sizes, AA allows for a detailed investigation of setting- and context-specific relationships. This is relevant to understand the circumstances under which mood congruency effects might occur, intensify, or attenuate. Finally, the implementation of experimental tasks in AA is an important development in this field of research. To address the current research gap, we studied mood-congruent processing of faces under daily life conditions by implementing experimental tasks in AA. AA is well suited to examine fluctuating variables, such as naturally occurring affective states (Trull & Ebner-Priemer, 2013).

The present study

Previous laboratory research suggests that mood congruent processing of faces is influenced by the observer's current affective state. We aimed to test whether momentary affective states affect the processing of facial affect and trustworthiness in daily life using a new experimental approach. Thus, beyond examining mood congruency effects in daily life, we also aimed to introduce a new assessment method for use in AA that was adapted from laboratory research (McEvily et al., 2012; Thielmann & Hilbig, 2014; Schmid & Schmid Mast, 2010).

Following mood-congruency models, we hypothesized that (1) momentary mood would be positively associated with the evaluation of facial affect. Specifically, the more positive an individual's current mood rating, the more positive they should appraise facial affect, and vice versa. Furthermore, we hypothesized (2) a negative association between momentary mood and interpersonal distrust. Specifically, we predicted that positive current mood would relate to lower distrust toward others.

Method

Participants

This study was part of a larger project (https://osf.io/zfsd9/?view_only=e68863dc88424ebb95fc6dbbaf712c5e). We recruited 44 healthy women between the age of 18 and 65 through an existing participant database (www.kfo256.de) at the Central Institute for Mental Health in Mannheim, Germany.¹ A power-analysis showed that this sample size is sufficient to detect small sized within-person effects (see online supplement). One participant answered questionnaires, but did not participate in the AA study. Another participant answered only four prompts, and was therefore excluded. The final dataset included 42 women, aged 21 to 50 ($M = 29.88$, $SD = 7.50$). The majority of participants were single (73.81%), had a university entrance level degree (88.09%), and were currently studying or had an undergraduate degree (64.28%). For further demographic details, see Table S1 in the online supplement.

Procedure

All methods and procedures were approved by the ethics committee of the medical faculty Mannheim at Heidelberg University (protocol no. 2018-588N-MA), and participants provided written informed consent prior to participation. During an orientation session, participants completed diagnostic interviews, provided demographic data, and filled in questionnaires not pertinent to the current investigation. They received an Android smartphone (Moto E, 2. Generation) and were instructed how to use the device.

¹ All participants underwent a careful diagnostic process to determine their mental health (see online supplement).

Participants selected an AA study period of seven running days, depending on their availability. Participants received a compensation of 70€, and a bonus of 30€ if they answered more than 90% of prompts.

During the study period, participants received six pseudo-randomized prompts per day via the movisensXS app (Movisens GmbH, Karlsruhe, Germany). The app spaced prompts evenly across the day by dividing the timeframe (8 a.m. to 10 p.m.) into six equal intervals. Within these intervals, random prompts occurred with a minimum of one hour between two prompts. Participants could delay responding up to three times (5, 10, or 15 minutes). Moreover, they could pause during completion of a questionnaire for up to five minutes. At each prompt, participants answered a short questionnaire about current mood, and then completed two experimental tasks to assess facial emotion processing and distrust (see Figure 1). Furthermore, they answered questions on dissociation, intrusions, and interpersonal problems that were not relevant to the current investigation. Compliance was excellent, with participants completing, on average, 93.88% of random prompts, with an average of 39.42 ($SD = 3.35$) completed prompts per person. The total number of prompts across all participants was 1,764 prompts over 294 person days.

Ambulatory Assessment

Current mood

Current mood was assessed using an adapted version of the Multidimensional Mood Questionnaire (Wilhelm & Schoebi, 2007). Designed for the usage in AA studies, this scale shows an excellent between person reliability and acceptable reliability of change for days (Wilhelm & Schoebi, 2007). At each prompt, participants rated how they felt “at this moment” by means of six bipolar items that assess *valence* (unwell-well, content-discontent), *calmness* (relaxed-tense, agitated-calm), and *energetic arousal* (tired-awake,

full of energy-without energy). Each item was rated on a seven-point Likert-type scale (0-6). Since we did not assume any effects of energetic arousal on performance in the paradigms, we decided a-priori to only use a composite mood score including valence and calmness subscales, as indicated by Wilhelm and Schoebi (2007). For each prompt, we calculated a mean score of current mood including the four items unwell-well, content-discontent, relaxed-tense, and agitated-calm after recoding negatively poled items. Next, we created a mean of all momentary mood scores of each person, within-day (day-level mood indicator), and a mean score across all days, within-person (person-level mood indicator).

Emotion Rating Task

At each prompt, participants rated the emotional valence of 20 randomly sampled pictures of emotional faces (see Figure 1). Stimuli were created from the dynamic FACES, a database of morphed videos of male and female Caucasian adults that display naturalistic emotional facial expressions (Holland et al., 2019). The original FACES videos showed a neutral expression gradually transitioning into a fully developed emotion (happiness, fear, anger, disgust, sadness). Each video was fragmented into ten pictures with different emotional intensities (ranging from 0 = neutral expression to 9 = full emotional expression). We randomly selected four happy pictures with different intensities, and four pictures displaying negative emotions in different intensities (one picture per emotion), for each identity. Across identities, we counterbalanced emotional intensities. The final set of stimuli consisted of 304 pictures with positive emotions and 304 pictures with negative emotions (76 target individuals). At each prompt, participants saw ten positive and ten negative emotional expressions, which were randomly selected. For each picture, participants evaluated the emotional expression on a bipolar scale, ranging from 0 (very negative emotion) to 6 (very positive emotion), and 3 being neutral.

Distrust Game

At each random prompt, participants played 20 rounds of a hypothetical distrust game (McEvily et al., 2012; Thielmann & Hilbig, 2014). The distrust game is an economic game with two players, a trustor and a trustee, who each receive the same initial amount of money. The trustee can then take away any amount of the trustor's money to increase his/her own payoff. For our purposes, we used a hypothetical version and instructed participants to imagine the target person on the screen as the trustee, and that they both receive 50€ at the beginning of each round (see Figure 1). For each round, participants then rated how much they thought the displayed person would take away from their money (from 0 to 50€ in 5€ steps). Higher scores in the distrust game (i.e. more money expected to be taken away) thus indicate higher levels of distrust. For each prompt, we randomly selected 20 stimuli from a larger stimulus set of 300 faces created by Oosterhof and colleagues (Oosterhof & Todorov, 2008). We included stimuli of low (-3 SD), high (+3 SD), and medium level trustworthiness (0 SD).

Data analysis

Multi-level models (MLMs) were conducted in R, Version 3.5.2, using the *lmer* function from the package *lme4* (Bates et al., 2014). The *lmerTest* package (Kuznetsova et al., 2017) was used to compute *p*-values and the *sjstats* package (Luedecke, 2020) to compute effect sizes. We conducted two MLMs to assess the effect of current mood on the emotion rating task (positive and negative stimuli) and one MLM to assess the effect of current mood on the distrust game. In each MLM, we modelled random intercepts for each person, random slopes for momentary affect and day affect, and adjusted for the effects of the covariates weekday (from Sunday = 1 to Saturday = 7), study day (1-7), and time of day (in minutes; with 8 a.m. being coded as 0). We centred momentary mood on the

participant's day mean, daily mood on the person mean, and person level mood on the grand mean to disaggregate mood variability across levels of analysis (Curran & Bauer, 2011).

To test hypothesis 1, that current mood positively predicts facial emotion ratings, we conducted one MLM using emotion ratings of the positive stimuli, and one MLM using emotion ratings of the negative stimuli as the criterion. We entered the following predictors in both models: momentary mood, day-level mood, person-level mood, and stimulus intensity (0 = neutral expression to 9 = full emotional expression), which was centred on the grand mean. To test hypothesis 2, that current mood negatively predicts distrust ratings, we conducted a MLM using distrust ratings (i.e., how much money participants thought target persons would take from them) as the outcome. As above, we included main effects for the predictors momentary mood, day-level mood, person-level mood, and stimulus intensity (0=low, 1=medium, 2=high trustworthiness), centred on the average stimulus intensity. Model equations can be found in the supplement.

Results

The dataset and analysis code are available in the OSF repository, https://osf.io/zfsd9/?view_only=e68863dc88424ebb95fc6dbbaf712c5e.

Descriptive analyses

Participants endorsed rather positive mood ratings on average ($M = 4.53$, $bSD = 0.81$, $wSD = 0.78$). Accordingly, the distribution of the mood variable at the momentary level was skewed to the left (-0.62). In the emotion rating task, the average participant rating was $M = 3.86$ ($bSD = 0.21$, $wSD = 1.25$) for the positive stimuli and $M = 1.93$ ($bSD = 1.01$, $wSD = 0.27$) for the negative stimuli on a scale ranging from 0 to 6. In the distrust game, participants indicated in 28.06 % of cases that the target person on the screen would

take away 0€. On average, participants assumed that the target person in the distrust game would take 17.67€ ($bSD = 8.33$, $wSD = 12.54$). The average duration of the task was $M = 66.03$ seconds ($SD = 14.95$) for the emotion ratings, and $M = 61.78$ seconds ($SD = 21.17$) for the distrust game. For further descriptives, see Table S2 and Table S3 in the online supplement.

Reliability analyses (following Shrout & Lane, 2012; further details in the online supplement) revealed that the four mood items reliably assessed within-person change over time ($R_C = 0.80$). With $R_{KR} = 0.97$, between person reliability of average mood levels across time points was also excellent. For the ratings of perceived emotion in the emotion rating task, between person reliability was $R_{KR} = 1.00$ for the model entering positive stimuli, and $R_{KR} = 0.98$ for the model entering negative stimuli. Reliability of change for the positive stimuli was $R_C = 0.76$, and $R_C = 0.32$ for the negative stimuli. Distrust ratings showed an excellent between person reliability ($R_{KR} = 0.99$), while reliability of change was moderate ($R_C = 0.64$).

We also computed intraclass correlation coefficients (ICCs) to estimate the proportion of variance at the momentary and person level in each of the two tasks. The largest proportion of variance was at the momentary level in both the emotion rating task (positive stimuli: $ICC_{mom} = 0.97$, $ICC_{day} < 0.01$, $ICC_{pers} = 0.03$; negative stimuli: $ICC_{mom} = 0.92$, $ICC_{day} = 0.01$, $ICC_{pers} = 0.06$) and the distrust game ($ICC_{mom} = 0.67$, $ICC_{day} = 0.05$, $ICC_{pers} = 0.28$). For the mood variable, the largest proportion of variance was at the person level, closely followed by momentary and day level ($ICC_{mom} = 0.33$, $ICC_{day} = 0.20$, $ICC_{pers} = 0.47$).

Momentary mood predicting distrust and emotion ratings

Main results are presented in Table 1. With regard to hypothesis 1, momentary mood was not significantly associated with the emotion ratings of the positive (model 1a) or negative

stimuli (model 1b). However, the intensity of the stimulus was significantly associated with the ratings in both models (positive and negative stimuli): more intense stimuli were rated as more intense by the participants. Results further showed a significant positive association between weekday/study day and momentary ratings of positive stimuli. This indicated that, as the week goes on and in the course of the assessment period, positive stimuli were rated more positively. In the model predicting momentary ratings of negative stimuli results showed a significant effect of weekday (negative) and study day (positive). Thus, as the week goes on, negative stimuli were rated more negatively, whereas ratings became more positive toward the end of a participants' assessment period. Following suggestions by an anonymous reviewer, we conducted an additional analysis using all stimuli, including a dummy variable that coded whether a negative or a positive stimulus was presented. These results can be found in the online supplement.

With regard to hypothesis 2, results further revealed that momentary mood showed a significant negative association with momentary distrust ratings, indicating that participants experienced more distrust in moments with negative mood, and less distrust in moments with positive mood. Additionally, trustworthiness of the stimulus material was negatively associated with distrust ratings, validating that trustworthy targets elicited less distrust. We further found a significant positive association between time of day and momentary distrust ratings, and between study day and momentary distrust ratings, suggesting that toward the end of a day and toward the end of their assessment period, participants indicated more distrust.

Discussion

We examined the relationship between momentary mood and the processing of facial stimuli by using two experimental tasks that we newly implemented for the use in AA. As hypothesized, momentary mood was significantly negatively associated with

momentary distrust ratings, suggesting that the more negative a participant's current mood was, the more distrust they experienced in that moment. This replicated and extended findings on mood-congruent processing of facial trustworthiness from previous laboratory studies (Dunn & Schweitzer, 2005; Mislin et al., 2015). Extending between-person evidence, we demonstrated that negative affect increased interpersonal distrust at a momentary, within-person level. Although the effect size of this association is rather small, it has to be taken into account that the underlying data reflect the daily life context of several events (unlike effects reported in most laboratory studies). Therefore, the reported small effect could still represent a meaningful finding.

In addition to three-level models with momentary, day, and person levels, we, on the recommendation of an anonymous reviewer, also conducted two-level models in which we did not include a day level (see additional analyses in the online supplement). As can be seen in Table S5, the significant effect of momentary mood on distrust ratings was not observed in the two-level model. However, not including the day-level significantly worsened the fit of our model ($\chi^2 [2, N = 42] = 700.38, p < .001$; $AIC_{3lev} = 251015$ vs. $AIC_{2lev} = 251712$; $BIC_{3lev} = 251116$ vs. $BIC_{2lev} = 251796$), which is why we a priori considered day level processes/experiences as an important unit of analysis that momentary processes should be compared against.

In contrast to distrust ratings, momentary emotion ratings were not significantly associated with momentary mood. This is not in line with previous results from laboratory studies demonstrating an effect of mood on the evaluation of facial expressions (Schiffenbauer, 1974; Schmid & Schmid Mast, 2010). However, some laboratory studies could not replicate mood-congruency effects on the evaluation of facial affect. In this context, it was discussed whether positive and negative stimuli are processed differently (e.g., Baumeister et al., 2001). Apart from effects of the stimulus material, previous

studies have found that momentary positive and negative affect have a differential effect on the evaluation of facial affect (e.g., Coupland et al., 2004). If mood congruency effects are larger for negative mood, we were probably not able to detect it based on our current sample, endorsing rather positive mood. Furthermore, we suggest a separate assessment of positive and negative affect in future AA studies to test mood-congruency effects in more detail.

Our results suggest that the two experimental tasks were successfully implemented in AA. First, intraclass correlation coefficients for both paradigms revealed that the largest proportion of variance was at the momentary level, indicating that emotion processing and distrust vary throughout the day. We, therefore, recommend repeated assessments of these processes in daily life in future studies. Second, we found that stimulus intensity was significantly associated with the respective participant ratings, showing that the experimental within-person manipulation was successful in both tasks. Finally, the feasibility of experimental tasks in AA was confirmed by a relatively short prompt duration in this study, and excellent compliance.

The study has several limitations. First, the sample consisted of a relatively homogenous group of healthy women who reported being in a positive mood most of the time. This contributed to a left-skewed distribution of our mood predictor that may have attenuated the investigated associations. Although the use of an exclusively female sample limits generalization to mixed gender populations, it reduced heterogeneity, which might be useful given that there is some evidence on sex differences on mood (Fujita et al., 1991). It is important to replicate the present findings using a more heterogeneous (e.g. mixed gender, clinical/ subclinical) sample to achieve a better distribution of mood scores and increase generalizability. Second, reliability analyses of the newly implemented experimental tasks revealed relatively low within-person

reliability of the emotion rating task (esp. of negative stimuli). This might have also contributed to the differential pattern of results for the emotion rating task, as compared to the distrust game. Finally, when modelling two levels (momentary and person level) instead of three levels (momentary, day and person level), we could not reproduce the same pattern of results. Therefore, the significant effect of momentary mood on distrust ratings must be interpreted cautiously. However, when directly comparing the model fit using multilevel model fit statistics, we found that the three-level structure improved model fit significantly.

To summarize, in our study we newly implemented two experimental tasks for the use in AA, and identified momentary mood as a predictor for interpersonal distrust. However, momentary mood did not predict the evaluation of emotional faces in the current study, which might be due to sample characteristics and the restricted variance of the mood predictor. Thus, our results were only partly consistent with mood-congruency models, and further studies are needed to investigate the association between momentary mood and emotion processing in heterogeneous samples. To conclude, we established that the implemented experimental measures are feasible in AA, and that mood-congruency effects replicate in daily life.

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References

- Bates, D., Maechler, M., Bolker, B., & Walker, S. (2014). lme4: Linear mixed-effects models using Eigen and S4. R package (Version 1.1–7). *Journal of Statistical Software*, 67, 1-48.
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology*, 5(4), 323-370. doi:10.1037//1089-2680.5.4.323
- Bodenhausen, G. V., Mussweiler, T., Gabriel, S., & Moreno, K. N. (2001). Affective influences on stereotyping and intergroup relations. In J. P. Forgas (Ed.), *Handbook of Affect and Social Cognition* (pp. 319-343): Lawrence Erlbaum Associates Publishers.
- Coupland, N. J., Sustrik, R. A., Ting, P., Li, D., Hartfeil, M., Singh, A. J., & Blair, R. J. (2004). Positive and negative affect differentially influence identification of facial emotions. *Depression and Anxiety*, 19(1), 31-34. doi:10.1002/da.10136
- Curran, P. J., & Bauer, D. J. (2011). The disaggregation of within-person and between-person effects in longitudinal models of change. *Annual Review of Psychology*, 62, 583-619. doi:10.1146/annurev.psych.093008.100356
- Dunn, J. R., & Schweitzer, M. E. (2005). Feeling and believing: The influence of emotion on trust. *Journal of Personality and Social Psychology*, 88(5), 736-748. doi:10.1037/0022-3514.88.5.736
- Forgas, J. P. (2011). She just doesn't look like a philosopher...? Affective influences on the halo effect in impression formation. *European Journal of Social Psychology*, 41(7), 812-817. doi:10.1002/ejsp.842
- Fujita, F., Diener, E., & Sandvik, E. (1991). Gender differences in negative affect and wellbeing: The case for emotional intensity. *Journal of Personality and Social Psychology*, 61, 427-434.
- Holland, C. A., Ebner, N. C., Lin, T., & Samanez-Larkin, G. R. (2019). Emotion identification across adulthood using the Dynamic FACES database of emotional expressions in younger, middle aged, and older adults. *Cognition and Emotion*, 33(2), 245-257. doi:10.1080/02699931.2018.1445981
- Kuznetsova, A., Brockhoff, P. B., & Christensen, R. H. B. (2017). lmerTest package: Tests in linear mixed effects models. *Journal of Statistical Software*, 82(13), 1-26. doi:10.18637/jss.v082.i13
- Loeffler, S. N., Myrtek, M., & Peper, M. (2013). Mood-congruent memory in daily life: Evidence from interactive ambulatory monitoring. *Biological Psychology*, 93(2), 308-315. doi:10.1016/j.biopsycho.2013.03.002
- Luedecke, D. (2020). *sjstats: Statistical Functions for Regression Models (Version 0.18.0)*. doi: 10.5281/zenodo.1284472.
- McEvily, B., Radzevick, J. R., & Weber, R. A. (2012). Whom do you distrust and how much does it cost? An experiment on the measurement of trust. *Games and Economic Behavior*, 74(1), 285-298. doi:10.1016/j.geb.2011.06.011

- Mislin, A., Williams, L. V., & Shaughnessy, B. A. (2015). Motivating trust: Can mood and incentives increase interpersonal trust? *Journal of Behavioral and Experimental Economics*, 58, 11-19. doi:10.1016/j.socec.2015.06.001
- Oosterhof, N. N., & Todorov, A. (2008). The functional basis of face evaluation. *Proceedings of the National Academy of Sciences*, 105(32), 11087-11092. doi:10.1073/pnas.0805664105
- Schiffenbauer, A. (1974). Effect of observer's emotional state on judgments of the emotional state of others. *Journal of Personality and Social Psychology*, 30(1), 31-35. doi:10.1037/h0036643
- Schmid, P. C., & Schmid Mast, M. (2010). Mood effects on emotion recognition. *Motivation and Emotion*, 34(3), 288-292. doi:10.1007/s11031-010-9170-0
- Schwarz, N. (2011). Feelings-as-information theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (Vol. 1-2, pp. 289-308): Sage Publications Ltd.
- Shrout, P. E., & Lane, S. P. (2012). Reliability. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.), *APA handbooks in psychology®. APA handbook of research methods in psychology, Vol. 1. Foundations, planning, measures, and psychometrics* (pp. 643-660): American Psychological Association.
- Thielmann, I., & Hilbig, B. E. (2014). Trust in me, trust in you: A social projection account of the link between personality, cooperativeness, and trustworthiness expectations. *Journal of Research in Personality*, 50, 61-65. doi:10.1016/j.jrp.2014.03.006
- Trull, T. J., & Ebner-Priemer, U. (2013). Ambulatory assessment. *Annual Review of Clinical Psychology*, 9, 151-176. doi:10.1146/annurev-clinpsy-050212-185510
- Wilhelm, P., & Schoebi, D. (2007). Assessing mood in daily life. *European Journal of Psychological Assessment*, 23(4), 258-267. doi:10.1027/1015-5759.23.4.258

Table 1. Results from three linear mixed effects models predicting the emotion ratings (positive and negative stimuli separately) and the distrust ratings with momentary, day level and person-level average mood, intensity of the stimulus material, weekday, time of day and study day.

	<i>Est.</i>	<i>SE</i>	<i>p</i>	β	<i>CI low</i>	<i>CI high</i>
Model 1a: Predicting emotion ratings (positive stimuli)						
Momentary mood	-0.00	0.01	.957	-0.00	-0.01	0.01
Day mood	0.02	0.02	.352	0.01	-0.01	0.02
Person mood	-0.00	0.04	.924	0.00	-0.05	0.05
Intensity	0.36	0.00	<.001	0.81	0.80	0.81
Weekday	0.01	0.00	.001	0.02	0.01	0.02
Time of day	-0.00	0.00	.117	-0.01	-0.02	0.00
Study day	0.01	0.00	.028	0.01	0.00	0.02
Model 1b: Predicting emotion ratings (negative stimuli)						
Momentary mood	0.02	0.01	.072	0.01	0.00	0.02
Day mood	0.00	0.03	.951	0.00	-0.02	0.02
Person mood	-0.03	0.05	.535	-0.02	-0.10	0.05
Intensity	-0.24	0.00	<.001	-0.64	-0.65	-0.63
Weekday	-0.01	0.00	.001	-0.02	-0.03	-0.01
Time of day	-0.00	0.00	.293	-0.01	-0.02	0.01
Study day	0.02	0.00	<.001	0.03	0.02	0.04
Model 2: Predicting distrust ratings						
Momentary mood	-0.23	0.10	.034	-0.01	-0.02	0.00
Day mood	15.40	15.13	.315	0.47	-0.44	1.38
Person mood	1.00	1.63	.543	0.06	-0.11	0.22
Trustworthiness	-9.41	0.07	<.001	-0.49	-0.50	-0.48
Weekday	-0.00	0.03	.984	-0.00	-0.01	0.01
Time of day	0.00	0.00	<.001	0.02	0.02	0.03
Study day	0.45	0.03	<.001	0.06	0.05	0.07

Note. Est. = Estimate. Significant effects are highlighted in boldface ($p < .05$).