


Implications of fear of negative evaluation, state anxiety, and implied level of target-dominance on perceptions of personality traits

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ABSTRACT

Fear of negative evaluation (FNE), state anxiety (SA), and dominance have consequences for social functioning. The present study assessed how FNE, SA, and a target's dominance-relevant label are related to perceptions of personality. One hundred seventy-eight participants who scored high or low on FNE underwent a laboratory manipulation of SA, viewed a photograph of a target with a high or low dominance-relevant label, and rated the target on the Big Five personality traits and dominance. FNE and SA were unrelated to perceptions, but the high-dominance label was associated with perceptions of higher dominance, conscientiousness, and openness. In conclusion, judges did use information about others when making initial judgments of personality, but these judgments were not impacted by trait or state psychological distress.

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Person perception—the perceptual and cognitive process by which individuals come to understand another person—is an important phenomenon that occurs across a wide variety of social interactions. For example, educators evaluate students, interviews occur within organizations, and law enforcement officers interact with civilians. With such breadth of settings in which person perception influences important outcomes, it is essential to assess factors that are likely to influence person perception. One major factor that could influence person perception, and the emphasis of this article, is anxiety. Anxiety disorders are one class of mental health issues that could impact person perception because they often involve fear and/or avoidance of situations and/or social interactions. In particular, Social Anxiety Disorder is a disorder that involves anxiety and fear of being negatively evaluated by others. With a 12-month prevalence rate of 6.8% (Kessler, Chiu, Demler, & Walters, 2005) and a lifetime prevalence of approximately 7% among Americans (American Psychiatric Association, 2013), it is both theoretically and ecologically advantageous to explore how social phobia is related to person perception.

Person perception

Person perception takes place under a variety of conditions. For instance, judgments are made from photographs (e.g., a picture found on a social media Web site), observing a singular action (e.g., watching someone cross the street), through a sequence of interactions (e.g., the barista at your local café), and even after decades of interactions (e.g., a child, parent, or significant other). Central to this article, however, are judgments made from the minimal information that is available in a photograph. With this in mind, the current research questions are based on Brunswik's lens model, which is a theory that can be utilized to understand person perception when a limited amount of

information is available (Zebrowitz & Collins, 1997). This theory posits that people use external cues when engaging in social perception, and those cues have ecological relationships with traits (Brunswik, 1956). In simpler terms, there is information emitted by a person, and others who receive that information will interpret it in their own manner (Gilbert, 1998). Brunswik's lens model has been applied to studies of person perception for decades, with demonstrated utility. For instance, Gifford (1994) found that physical cues (i.e., head orientation, head shakes, gestures) accounted for 66% of the variance in ratings of others' level of being Ambitious-Dominant after short interactions between three individuals, which provided evidence that physical cues are used when judging others. Furthermore, judges who view only a still photograph of a stranger can agree in their perceptions and achieve some accuracy (e.g., Borkenau & Liebler, 1992; Naumann, Vazire, Rentfrow, & Gosling, 2009; Zebrowitz & Collins, 1997).

Stereotypes are often discussed in the zero acquaintance person perception literature because physical cues provide some information about a target. For instance, physical appearance can reveal information about gender, race, and age, indicating that physical cues of the target can activate a judge's schemas related to group membership. Aside from physical cues, it has been demonstrated that individuals asked to describe a label (e.g., teacher, student) are likely to rely on stereotypes to make their judgments (Aboud & Taylor, 1971). The use of stereotypes is a double-edged sword, however, in that accurate stereotypes increase accuracy of judgments, whereas inaccurate stereotypes decrease accuracy of judgments (Jussim, Cain, Crawford, Harber, & Cohen, 2009). Even so, people will rely less on their stereotypes when they have more individuating information that is relevant to the judgments being made (Crawford, Jussim, Madon, Cain, & Stevens, 2011). In the current study, in which participants were asked to rate targets' personalities based on a photograph and label, it was expected that participants would rely on stereotypes in order to make judgments of personality.

Anxiety related to social situations

Social anxiety

The primary focus of research on social anxiety has been on how individuals perceive themselves and social interactions. There are several common characteristics of social anxiety, and more specifically of those high in fear of negative evaluation (FNE), including an attentional bias toward socially threatening stimuli, negative interpretations of ambiguous social stimuli, the belief that one's own performance in social situations is worse than that of others, more negative self-thoughts, expectations of poor performance in social interactions, and perceiving positive attributes in others (e.g., Heinrichs & Hofmann, 2001; Lundh & Sperling, 2002; Rapee & Lim, 1992; Smith & Sarason, 1975; Stopa & Clark, 1993). Some research shows that perceiving others positively is associated with more behavioral signs of anxiety (Mahone, Bruch, & Heimberg, 1993). In contrast to that focus, the present investigation examined how individuals high and low in FNE perceive the personality traits of others. Based on the previous findings regarding how social anxiety relates to self-perceptions, it was predicted that individuals high in FNE would perceive the target more favorably—as more extraverted, more dominant, and less neurotic—than individuals low in FNE. This favorable perception of others is anticipated based on it being in contrast to the negative self-perceptions that are common among those high in FNE (Heinrichs & Hofmann, 2001; Lundh & Sperling, 2002; Mahone et al., 1993; Rapee & Lim, 1992; Smith & Sarason, 1975; Stopa & Clark, 1993).

Dominance

Dominance has been studied since the 1930s when Eisenberg (1938) investigated whether judges could distinguish the level of dominance of an author from a handwriting sample. More recently, research has shown that people automatically recognize a person's level of dominance vs. submissiveness when viewing a photograph of two individuals (Moors & De Houwer, 2005), and that dominance is positively related to perceptions of competence and influence within a group setting (Anderson & Kilduff, 2009). Dominance is an aspect of the Big Five personality trait of extraversion

(John, Naumann, & Soto, 2008; Zuckerman, 2013). More closely related to person perception, research has shown that emotional facial expressions influence the level of dominance with which people are perceived (Hareli, Shomrat, & Hess, 2009), and that people can achieve moderately accurate judgments of dominance from facial photographs (Zebrowitz & Collins, 1997).

One goal of the current study was to examine how level of FNE and state anxiety could interact with high vs. low dominance of the target to influence perceptions of the target's personality. People with high FNE may feel especially anxious around, or threatened by, people who are dominant or in positions of power and may be able to affect them negatively. Based on research demonstrating that those high in social anxiety attend more to socially threatening stimuli and are likely to interpret ambiguous social stimuli in a negative way (Amin, Foa, & Coles, 1998; Heinrichs & Hofmann, 2001), it was expected that those high in FNE would attend more to a label that implied high dominance, which could be interpreted as threatening by those who perceive themselves negatively and expect themselves to perform poorly, and therefore would rate the personality of the target differently, and more positively, as compared to those low in FNE. To examine this prediction, the dominance level of the target was manipulated by pairing the photograph with a label that either denoted a high or low dominance level. In other words, the present study examined whether the stereotype that is associated with high vs. low dominance is the same for those with high vs. low FNE.

State anxiety

State anxiety (SA)—a short-term emotional state of arousal due to a perceived danger—is another construct that is highly related to general social anxiety. SA is believed to vary in intensity based on context, and the frequency of SA is theorized to stem from an individual's level of trait anxiety (Hedberg, 1972). There is empirical evidence for the relationship between social anxiety and state anxiety, and this relationship is mediated by a negative interpretation bias of social information and past social performance (Beard & Amir, 2010; Schulz, Alpers, & Hofmann, 2008; Weeks, Heimberg, & Heuer, 2011). Therefore, one might expect that individuals who are high in FNE will likely experience high SA more often than those low in FNE.

Furthermore, it is possible that high state anxiety may be necessary to activate the negative perceptions that are a part of social anxiety, although the current authors are not aware of empirical evidence that supports this possibility. For this reason, SA was manipulated in the lab to allow for an examination of how FNE and SA interact in their relation to perceptions of others. Additionally, state and trait anxiety may have similar effects on perceptions of others, and therefore even people low in FNE may perceive the target more favorably when they are in a state of high anxiety.

Present study and hypotheses

The present study was designed to examine how FNE, SA, and the dominance label of the target are related to person perception. The following hypotheses were tested:

- (1) There would be a main effect of FNE such that participants high in FNE would perceive the target more favorably, specifically as more extraverted, more dominant, and less neurotic, than participants low in FNE.
- (2) There would be a main effect of SA such that participants in the high SA condition would perceive the target as more extraverted, more dominant, and less neurotic than participants in the low SA condition. This prediction is based on the possibility that high state anxiety would result in similar processes as experienced by those with high general anxiety, and therefore would influence perceptions in the same manner.
- (3) Participants presented with the high dominance label would rate the target as more dominant, and also as more extraverted and less neurotic, than participants presented

with the low dominance label. Since dominance is an aspect of extraversion (John et al., 2008; Zuckerman, 2013), someone who is perceived as dominant is also likely to be perceived as more extraverted overall. And even though measures of the Big Five were designed to have orthogonal traits, it is not uncommon for extraversion and neuroticism to be negatively correlated.

- (4) There would be a three-way interaction between FNE, SA, and dominance. Specifically, participants high in FNE and in the high SA condition who were presented with the high dominance label would rate the target as more extraverted, more dominant, and less neurotic than participants in all other conditions. This prediction is based on the idea that high state anxiety would activate the perceptual biases of high FNE individuals, and the highly dominant label would further exacerbate those negative biases.

Method

Participants

Nine hundred forty-eight participants (68.1% female; 81% Caucasian, 9.5% Hispanic, 2.6% Asian, 1% Native American, 5.8% Other/unidentified; $M_{age} = 24.05$, $SD_{age} = 6.97$) were recruited from the Psychology Department's participant pool¹. In part 1 of the study, participants completed the Fear of Negative Evaluation Scale (FNES) online and received partial course credit for their participation. Participants in the 25th percentile or below were selected into the low FNE group, while those in the 75th percentile or above were selected into the high FNE group.² Those in the upper and lower quartiles ($N = 529$) were invited via e-mail to participate in a laboratory session, of which 186 (35.16%) attended. Those who attended the laboratory session did not differ from those who did not in terms of FNE scores, personality traits as assessed with the Big Five Inventory, age, and gender, with two exceptions: In the high FNE group, extraversion was lower for those who attended the laboratory session ($M = 2.88$, $SD = .69$) than for those who did not attend ($M = 3.09$, $SD = .80$), $t(273) = 2.16$, $p = .03$, $d = .26$; and more females and fewer males attended than would be expected by chance, $\chi^2(1) = 4.58$, $p = .03$, $r_{\phi} = .13$. Eight participants were excluded for various reasons,³ resulting in a final sample of 178 participants for whom complete data were available (72% female; 84.3% Caucasian, 7.3% Hispanic, 2.2% Asian, 1.1% Native American, 5.1% other; $M_{age} = 24.27$, $SD_{age} = 6.70$).⁴ This final sample size provided an appropriate level of power for testing the hypotheses, as 167 participants were needed to obtain a power of .80 for detecting a moderate effect size (.30).

Materials

Fear of Negative Evaluation Scale

The FNES is designed to assess an aspect of anxiety in social settings described as a fear of others evaluating one's social performance negatively, by tapping into respondents' apprehension of receiving negative evaluations, expectations of negative evaluations, as well as stressing over and avoiding evaluative situations. The FNES has demonstrated adequate reliability in a sample of over 200 individuals, based on biserial correlations between each item and the total scale score, and high test-retest reliability, across 1 month, with a sample of 154 college students (Watson & Friend, 1969). In the current sample ($N = 948$), the FNES also exhibited high internal reliability ($\alpha = .93$).

Big Five Inventory

The Big Five Inventory (BFI; John et al., 2008) is a 44-item measure with a 5-point scale from 1 (*disagree strongly*) to 5 (*agree strongly*) that assesses each of the Big Five personality traits of

extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. The BFI scales have adequate average alpha reliability, and strong convergent and divergent validity (John & Srivastava, 1999). Participants provided self-ratings with the BFI, and perceptions of the target's personality were assessed using the other-report version. The total reliabilities for the ratings of the targets based on the BFI subscales were adequate in the current investigation ($\alpha = .72-.86$).

Revised Interpersonal Adjective Scale

Participants rated the targets' level of dominance using items from the Revised Interpersonal Adjective Scale (IAS-R; Wiggins, Trapnell, & Phillips, 1988). In the present study, the adjectives from the Assured-Dominant and Unassured-Submissive subscales were combined and used to assess dominance. These subscales have demonstrated high internal consistency in previous research using a large sample (Wiggins et al., 1988). Therefore, the 16 adjectives representing the Assured-Dominant and Unassured-Submissive subscales are a reliable and adequate measure of the judges' perception of the target's dominance. The reliability of this measure was high in the current investigation ($\alpha = .92$).

Subjective Units of Distress Scale

Participants' level of SA was assessed using the Subjective Units of Distress Scale (SUDS; Hope, Heimberg, Juster, & Turk, 2000). Participants were asked to rate their current subjective experience of distress by stating a number from zero (none at all) to 100 (most possible). This procedure for assessing distress was chosen because it is quick to administer and can be used repeatedly within the same study.

Dominance labels

A photograph was pilot-tested with four labels (Grocery Store Clerk, Business CEO, Janitor, and College Professor) to ensure believability and differences in the perception of dominance indicated by the labels. Results demonstrated that the Business CEO label was rated as significantly more dominant than Grocery Store Clerk label ($t(58) = 3.19, p = .002, d = 0.84$), and both of these labels were rated as somewhat believable ($M_{Business\ CEO} = 2.90, M_{Grocery\ Store\ Clerk} = 3.17$) on a 4-point scale from 1 (*Unbelievable*) to 4 (*Believable*). As such, Business CEO and Grocery Store Clerk were selected as the two labels for the current study.

Procedure

Participants first completed self-report measures in an online format, which included the FNES and the BFI. During the lab session, participants began by providing an initial SUDS rating. Participants randomly assigned to the high SA condition were told they would give a 2-minute impromptu speech, which would be recorded and subsequently rated by others. For this speech, they chose from the topics of nuclear power and the death penalty and were given 3 minutes to prepare for the speech. Participants randomly assigned to the low SA condition chose to read about nuclear power or the death penalty and were given three minutes to read. After the 3-minute preparation or reading period, participants provided a second SUDS rating. Then, participants were presented with the photograph of the target on a computer screen, which was randomly paired with either the high or low dominance label. A photograph of the target was used, rather than stimuli with more information, for several reasons. First, a photograph allows high experimental control across conditions because all participants viewed exactly the same photograph, and therefore differences in ratings could not be due to differences in information coming from the target himself. Second, a photograph was used in order to test the hypotheses within a zero acquaintance situation, which has ecological validity for many first impressions, including those that are based on photographs seen online or accompanying something like a resume, or the initial impression that is made of another person before any interaction takes place.

Based on the photograph and label, participants rated the target on six traits (the Big Five and dominance) using the BFI and IAS-R. Lastly, participants provided their final SUDS rating⁵ and were told they would not actually give their speech because the study was finished. They were debriefed as to the purpose of the deception about giving a speech and being evaluated, which was to create a heightened level of SA.

Results

State anxiety manipulation

The baseline level of distress did not differ between high and low SA groups,⁶ $M_{\text{difference}} = .34$, 95% confidence interval $[-5.66, 6.35]$,⁷ $d = 0.01$, $t(176) = .11$, $p = .91$). Based on a mixed-model ANOVA with distress ratings as a within-subjects factor and experimental condition and FNES level as between-subjects factors, the SA manipulation was effective at increasing distress as measured after the three-minute preparation or reading period, as evidenced by a statistically significant main effect of experimental condition, $F(1, 174) = 114.04$, $p < .001$, $\eta_p^2 = .40$. Distress increased overall from baseline ($M = 16.73$ [13.72, 19.73], $SD = 20.24$) to after the SA manipulation ($M = 30.61$ [27.05, 33.92], $SD = 25.66$). There was also a statistically significant interaction between distress scores and experimental condition, $F(1, 174) = 71.16$, $p < .001$, $\eta_p^2 = .29$, such that the increase in distress was more extreme in the high SA condition ($M_{\text{difference}} = 24.62$ [19.92, 29.32], $SD = 22.45$, $d = 2.20$, $t(89) = 10.40$, $p < .001$) than in the low SA condition ($M_{\text{difference}} = 2.89$ [.96, 4.82], $SD = 9.12$, $d = .64$, $t(87) = 2.97$, $p = .004$). Additionally, there was not a significant interaction between FNE and distress scores, $F(1, 174) = 1.51$, $p = .22$, $\eta_p^2 = .009$, which suggests that the increase in anxiety in the speech condition was consistent for people both high in FNE ($M_{\text{difference}} = 15.72$ [11.19, 20.24], $SD = 21.48$, $d = 1.47$, $t(88) = 6.90$, $p < .001$) and low in FNE ($M_{\text{difference}} = 12.03$ [8.02, 16.04], $SD = 19.03$, $d = 1.27$, $t(88) = 5.96$, $p < .001$).

Ratings of the target

Potential covariates

A significant negative correlation was found between participant age and ratings of conscientiousness ($r = -.20$ [-.33, -.05], $p = .009$). Further, significant differences were found between ethnicity (Non-Caucasian vs. Caucasian) on participants' ratings of extraversion ($t(176) = 2.07$, $p = .04$, $d = 0.31$), and agreeableness ($t(176) = 2.39$, $p = .018$, $d = 0.33$). As such, both ANCOVAs with age and ethnicity as covariates and ANOVAs were conducted. However, the results of these analyses were consistent with each other, and therefore results from the ANOVAs are reported because they are more parsimonious.⁸

Analyses

A series of 2 (high vs. low FNES) \times 2 (high vs. low SA) \times 2 (high vs. low dominance label) between-subjects ANOVAs were conducted to examine the effects of these factors for ratings of each personality trait:

Hypothesis 1 (H1): Contrary to our first hypothesis, there was no main effect of FNE on ratings of extraversion ($F(1, 170) = .03$, $p = .86$, $\eta_p^2 = .00$), dominance ($F(1, 170) = .33$, $p = .56$, $\eta_p^2 = .00$), or neuroticism ($F(1, 170) = .61$, $p = .44$, $\eta_p^2 = .00$). Exploratory analyses on the remaining traits produced similar results; FNE did not have a significant main effect for ratings of agreeableness ($F(1, 170) = .83$, $p = .36$, $\eta_p^2 = .00$), conscientiousness ($F(1, 170) = 3.07$, $p = .08$, $\eta_p^2 = .02$), or openness ($F(1, 170) = .98$, $p = .32$, $\eta_p^2 = .01$). See [Figures 1 and 2](#).

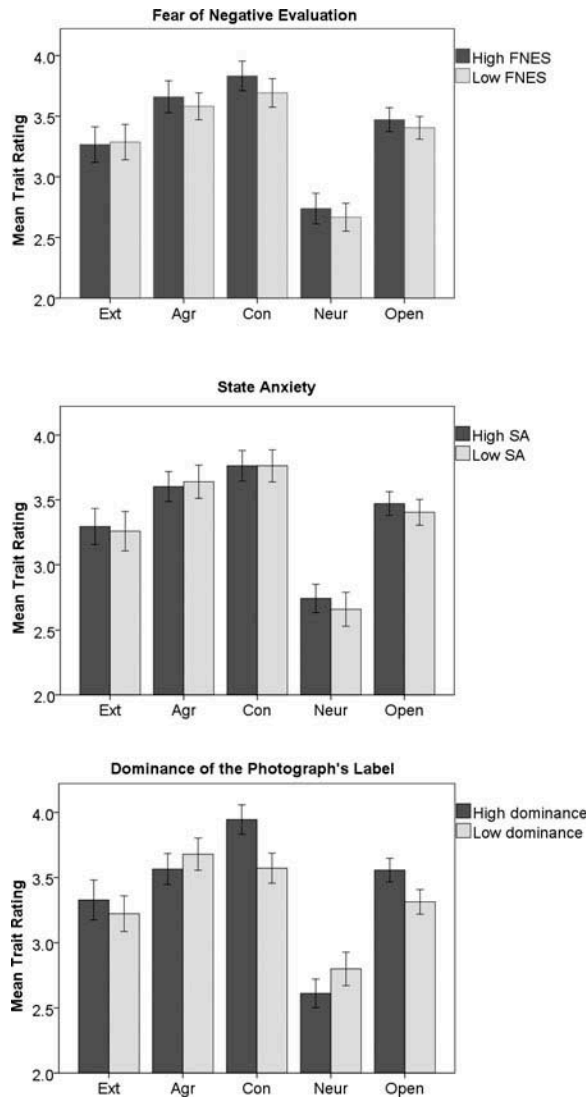


Figure 1. Mean Big Five trait ratings. *Note.* Ext = extraversion, Agr = agreeableness, Con = conscientiousness, Neur = neuroticism, Open = openness to experience. Error bars represent 95% confidence intervals.

H2: The second hypothesis was also not supported, in that there was no main effect for SA on ratings of extraversion ($F(1, 170) = .10, p = .75, \eta_p^2 = .00$), dominance ($F(1, 170) = .19, p = .66, \eta_p^2 = .00$), or neuroticism ($F(1, 170) = .99, p = .32, \eta_p^2 = .01$). Exploratory analyses again produced similar results, such that SA did not have a main effect on ratings of agreeableness ($F(1, 170) = .15, p = .70, \eta_p^2 = .00$), conscientiousness ($F(1, 170) = .02, p = .88, \eta_p^2 = .02$), or openness ($F(1, 170) = .79, p = .37, \eta_p^2 = .00$).

H3: The third prediction was partially supported. There was a significant main effect for target's dominance label on ratings of dominance ($F(1, 170) = 31.88, p < .001, \eta_p^2 = .16$), such that participants shown the high dominance label rated the target as more dominant ($M = 5.31, SD = .89$) than participants shown the low dominance label ($M = 4.57, SD = .84; M_{difference} = .74 [.49, 1.00]$). These results indicate that the manipulation of target dominance was successful.

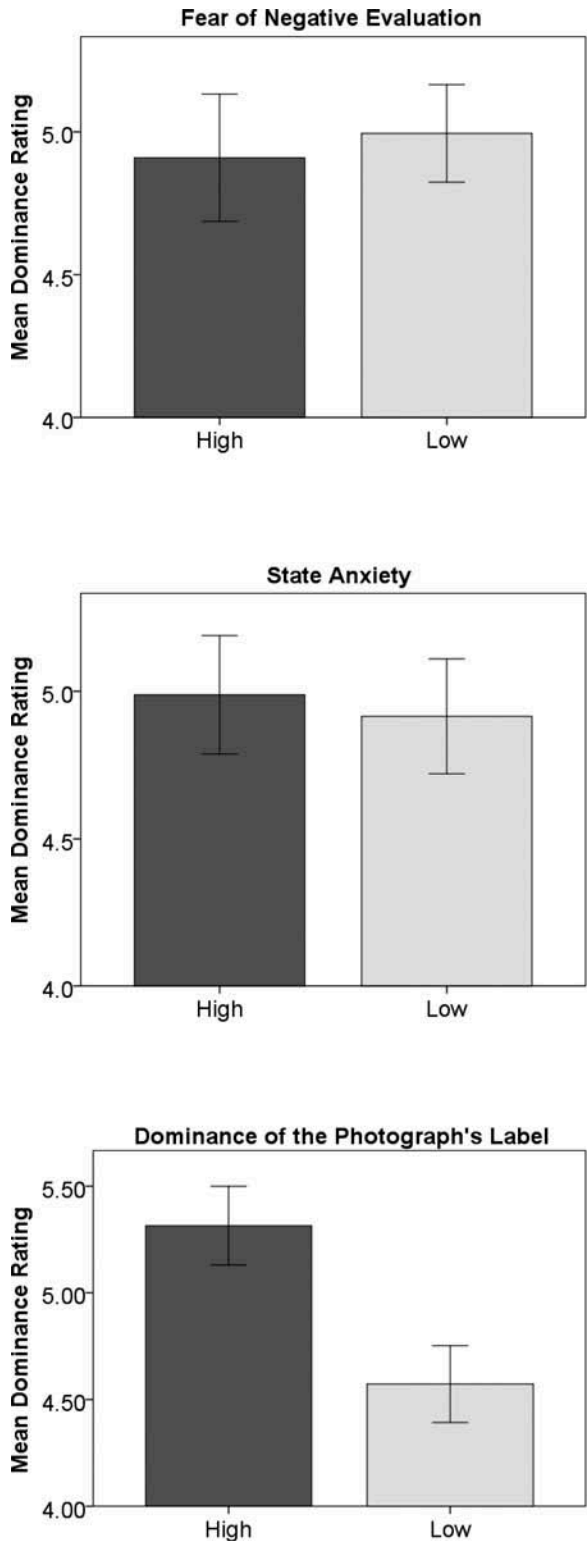


Figure 2. Mean dominance ratings. *Note.* FNES = Fear of Negative Evaluation Scale. Results of the data for hypotheses one, two and three are shown, by depicting the average rating of the target's dominance by participants based on their level of FNES, state anxiety, and the label of the target. Error bars represent 95% confidence intervals.

However, no main effect was found on ratings of extraversion ($F(1, 170) = .98, p = .32, \eta_p^2 = .01$) or neuroticism ($F(1, 170) = 4.90, p = .03, \eta_p^2 = .03$).

Exploratory analyses of target's label also produced some significant findings. Specifically, there was a significant main effect of target label for ratings of conscientiousness ($F(1, 170) = 20.82, p < .001, \eta_p^2 = .11$) and openness ($F(1, 170) = 13.12, p < .001, \eta_p^2 = .07$). Participants shown the high dominance label rated the target as more conscientious and open ($M = 3.94, SD = .54$ and $M = 3.56, SD = .44$, respectively) than participants shown the low dominance label ($M = 3.57, SD = .54, M_{difference} = .37 [.21, .53]$ and $M = 3.31, SD = .44, M_{difference} = .24 [.11, .37]$, respectively). The target's label did not have a main effect for ratings of target agreeableness ($F(1, 170) = 1.68, p = .20, \eta_p^2 = .01$).

H4: The hypothesized three-way interactions for ratings of target extraversion, dominance, and neuroticism were not statistically significant (see Table 1). Additionally, parallel exploratory analyses for agreeableness, conscientiousness, and openness revealed no three-way interactions.⁹

Discussion

The present investigation is important for understanding how psychological distress at the trait and state levels may be related, or unrelated, to person perception. The present investigation did not find evidence that FNE or SA altered judges' perceptions of the target, and there was partial support for the influence of the dominance label. Several possibilities exist to explain why FNE and SA may be unrelated to judges' perceptions of a target in this study. For instance, past research has provided evidence that some characteristics of the judge are related to accuracy of perceptions of a target (e.g., gender; Letzring, 2008), and the argument could be made that only certain characteristics of judges impact person perception, and FNE and SA are not such factors. Alternatively, FNE could be related to person perception, but social interaction may be required to elicit that relationship. Furthermore, it is possible that the effect of FNE on person perception is small and therefore was not detected in this study even though there was adequate power to detect a moderately sized effect.

Although evidence was not found for the predicted relationships between FNE, SA, and person perception, a connection was found between the target's dominance label and ratings of three traits: dominance, conscientiousness, and openness. These findings provide evidence that participants perceived the target differently across these three traits because of the dominance label. In line with previous research (e.g., Chan & Mendelson, 2010), this supports the idea that judges use all information available when making their judgments, and that additional information (even something as simple as a label relevant to dominance) can impact ratings of personality.

While research has demonstrated consensus and accuracy for ratings of a target's level of extraversion in zero acquaintance situations (Borkenau & Liebler, 1992), participants in the present study did

Table 1. Means, standard deviations, and *F*-values for the three-way interactions.

SA	Label	FNES	E		D		N		A		C		O		<i>n</i>
			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
High	Business CEO	High	3.35	.78	5.24	1.03	2.70	.55	3.55	.58	4.05	.57	3.71	.38	24
		Low	3.36	.67	5.43	.77	2.66	.38	3.47	.48	3.91	.44	3.52	.40	23
	Grocery Store Clerk	High	3.32	.71	4.56	1.10	2.76	.58	3.75	.65	3.59	.54	3.33	.53	22
		Low	3.14	.46	4.66	.58	2.86	.56	3.65	.46	3.44	.50	3.30	.32	21
Low	Business CEO	High	3.21	.73	5.37	1.02	2.64	.64	3.59	.75	3.94	.62	3.48	.45	21
		Low	3.38	.78	5.23	.71	2.44	.49	3.65	.48	3.85	.55	3.51	.51	23
	Grocery Store Clerk	High	3.18	.56	4.46	.79	2.85	.63	3.76	.52	3.72	.51	3.35	.43	22
		Low	3.25	.80	4.61	.86	2.72	.66	3.55	.66	3.53	.61	3.28	.48	22
3-way interaction results			F = .04		F = .53		F = .05		F = .44		F = .04		F = .99		

Note. SA = State Anxiety; FNES = Fear of Negative Evaluation Scale; E = Extraversion; D = Dominance; N = Neuroticism; A = Agreeableness; C = Conscientiousness; O = Openness. E, D, and N are hypothesized 3-way interaction analyses, while A, C, and O are exploratory 3-way interaction analyses. *df* for all ANOVA results = (1, 170).

not demonstrate differences in their ratings of the target's extraversion, neuroticism, or agreeableness. One plausible reason is that judgments of extraversion, neuroticism, and agreeableness are readily made based on the information contained in the photograph itself, and the impact of the label was not sufficient to alter that information. Another possibility is that the stereotypes activated in participants by the labels did not relate directly to judgments of extraversion, neuroticism, and agreeableness, and therefore no differences were found in the participants' ratings of those traits.

Applied implications

Past research has indicated that individuals with social anxiety rate other people's social performance as better than their own (e.g., Stopa & Clark, 1993). Also, FNE is specifically related to fears of being evaluated negatively by another person. Therefore, the present study may not have found differences in personality ratings for judges who were high vs. low in FNE because the participants were not engaged in an interpersonal interaction. Social interaction might activate the fears and anxiety of people high in FNE in a way that did not occur in the present study. Therefore, it may be beneficial for people with high levels of FNE to form an impression of another person based on a photograph before actually interacting with the person, which would allow for an impression to be formed that is not obstructed by one's level of social anxiety and therefore may be less biased and more accurate. Future examinations of relationships between psychological distress and person perception would be well-informed to incorporate social interaction to determine whether engaging in interaction leads to differences in perceptions.

Limitations

A limitation of the present study is that the stimulus photograph was always paired with a label when presented to the participants. Theoretically, the label accompanying the photograph may have activated stereotypes that overrode the impact of FNE or SA. Thus, if there was no label, participants may have differed in their perceptions of the target based on their level of FNE or SA. The present study cannot rule out this possibility because there was no condition that had participants view the photograph without a label.

In a similar vein, only one photograph (of an adult Caucasian male) was used in the present study. A male photograph was chosen because high dominance was more likely to be perceived in a male target as compared to a female target, and it was expected that this would be more likely to activate the anxiety of high FNE participants. However, no discernments can be made regarding how other photographs may have impacted the results, and future examinations would provide more generalizable results by using multiple targets. Furthermore, using multiple targets that vary demographically could provide insight into how perceptions differ based on those variables.

In addition to the limitation of only using a single photograph, only one label was used to signify each level of dominance (Business CEO for high dominance and Grocery Store Clerk for low dominance). The results confirmed that these labels resulted in differences in assessments of dominance, as well as in perceptions of conscientiousness and openness. However, it is not possible to determine if these labels manipulated other characteristics, such as friendliness or power, which could also influence perceptions of the Big Five traits.

A third limitation is that there could be several reasons for the lack of significant results other than there not being an actual effect of FNE on person perception in the situation used in the current study. Certainly, more research needs to be done on this important question to determine whether even a small effect exists between these variables, and the replicability and generalizability of an effect if one exists.

Conclusion

The present investigation was an initial inquiry into the relationship between psychological distress and person perception. The hypothesized links between FNE, SA, and target perceptions were not supported. However, the proposition that a photograph paired with a label can elicit perceptive differences for some traits received support. Overall, the findings are consistent with past stereotype and zero acquaintance literature, and provide evidence that FNE and SA may not interfere with, or impact, person perception in a zero acquaintance situation. This information can be used to help people with social anxiety to function more effectively in interactions, by having them form initial impressions based on only a photograph.



Notes

1. All materials used in this study are available online on an OSF project page (Letzring, 2016; <https://osf.io/w24dm/>).
2. Cutoff scores were chosen based on work by Stopa and Clark (2001) that showed that a total FNES score of 8 signified the 25th percentile and a total FNES score of 20 signified the 75th percentile based on two samples of college students ($N = 539$).
3. Four were excluded for computer errors, 1 elected to discontinue during the SA manipulation, 1 was not blind to the SA manipulation, 1 did not take the target ratings seriously, and 1 was mistakenly run in the high FNE group.
4. An incentive was added after 96 participants had completed the laboratory session to encourage increased participation. Differences existed between these two groups in that participants with the incentive were on average somewhat younger ($t(173.21) = 1.81, p = .07, d = 0.19; M_{incentive} = 23.29; SD_{incentive} = 5.58$ vs. $M_{no\ incentive} = 25.10, SD_{no\ incentive} = 7.45$) and there was a larger than expected number of non-Caucasian participants with the incentive ($\chi^2(1) = 4.44, p = .04$). However, FNES scores were not different ($t(176) = -.52, p = .60, d = -0.006$) and the distribution of gender was consistent with what would be expected ($\chi^2(1) = 2.76, p = .10$). Importantly, the distribution of participants across the eight conditions, comparing those invited with and without the incentive, was consistent with what would be expected ($\chi^2(7) = 4.58, p = .71$).
5. This final SUDS rating was not used in the current analyses.
6. All data used in this study are available online on an OSF project page (Letzring, 2016; <https://osf.io/w24dm/>).
7. From this point on, the 95% confidence interval will be indicated with brackets.
8. Bonferonni correction was applied to all F -tests due to conducting six parallel analyses. Therefore, the p -value denoting a significant result was set at .0083 (.05/6 = .0083).
9. Furthermore, all 2-way interactions did not reach statistical significance, all F 's < 1, p 's > .3.

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