Personality traits and affective states: Relationships with and without affect induction

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Abstract

Substantial evidence shows that extraversion is related to positive affect (PA) and neuroticism is related to negative affect (NA), and there are several possible explanations for these relationships. The current paper replicates these findings and examines relationships between the other Big Five traits with general positive and negative states (N = 257). Agreeableness was negatively related to NA, while conscientiousness and openness were positively related to PA. Next, affect was induced and extraversion and conscientiousness predicted changes in affect following an affect-induction (N = 262). The current findings support some theoretical understandings of broad personality traits and their relationships to general affect, and also suggests some refinements.

Key words:
Personality
Big Five traits
Affect
Emotion
Affect induction

1. Introduction

Personality is one's characteristic ways of thinking, feeling, and behaving. This paper focuses on the second element: feeling. How people feel, in terms of emotional experience, is an important part of daily life and provides motivation to engage in an array of behaviors. Therefore, it is important to deepen our understanding of relationships between personality traits and affective states.

Consistent findings regarding relationships between personality traits and affect reveal that extraversion is positively related to positive affect (PA) and neuroticism is positively related to negative affect (NA; DeNeve & Cooper, 1998; Lucas & Fujita, 2000). Furthermore, trait-level PA is related to well-being, social potency, achievement, and current PA; and trait-level NA is related to stress reaction, alienation, aggression, angry affect, and current NA (Martin, Watson, & Wan, 2000; Tellegen, 1985). One explanation for these findings is that extraverts are more responsive to potential rewards and neurotics are more responsive to potential punishments (e.g., Larsen & Ketelaar, 1991; Robinson, Moeller, & Ode, 2010), which is based on Gray's theory of behavioral activation and inhibition systems (Gray, 1970; Pickering & Gray, 1999). This explanation is supported by some research (Larsen & Ketelaar, 1991), although other research has not supported this pattern of results (Lucas & Baird, 2004). Other possible explanations of the link between extraversion and PA are incentive motivation theory, in which affective situations/words are processed differently by extraverts and introverts (Robinson et al., 2010); and differential processing of positive and negative affect scenarios that is related to trait levels (Wilkowski, Robinson, & Meier, 2006). The current paper will not test the mechanism behind the results, but instead will extend our knowledge about relationships between personality and affect to include other personality traits and specific emotions.

Some research has examined links between the other Big Five traits and affect, and suggests that agreeableness and conscientiousness are positively related to PA and negatively related to NA, while openness is less strongly related to affect (McCrae & Costa, 1991; Ready & Robinson, 2008). Other relevant research has revealed that agreeableness moderates negative outcomes associated with neuroticism (Ode & Robinson, 2007); and highly agreeable people are less reactive than low agreeables to aggressive primes and more likely to activate prosocial thoughts in response to antisocial words (Meier, Robinson, & Wilkowski, 2006). However, the research on traits other than extraversion and neuroticism is less voluminous, and none of these studies have reported how specific emotions are related to personality. Learning about links with specific emotions has the advantage of laying a groundwork for future studies that examine mechanisms linking emotion with personality.

2. Study 1: Prediction without affect induction

Despite the robust findings regarding the relationships of extraversion and neuroticism with affect, there is less research that
reports how other broad personality traits are related to affect, or how any broad traits are related to more specific emotions (but see Silvia & Kashdan, 2009). Therefore, the current study examined relations of all of the Big Five personality traits with general and specific affective states.

Hypothesis 1 is that previous findings of relationships between extraversion and PA and between neuroticism and NA will be replicated. Furthermore, based on conceptual and theoretical understanding of these traits in terms of item content used for assessment (International Personality Item Pool, n.d.; John, Naumann, & Soto, 2008), it is predicted that traits will be differentially related to specific emotions. Extraversion will be positively related to feeling excited, enthusiastic, and active; and negatively related to feeling distressed, upset, and nervous. Neuroticism will be positively related to feeling distressed, upset, guilty, scared, irritable, ashamed, nervous, jittery, and afraid.

Hypothesis 2 is that the other Big Five traits will be differentially related to specific affective states. Agreeableness will be negatively related to feeling upset, proud, hostile, irritable, and afraid. Conscientiousness will be positively related to feeling determined and attentive. Openness will be positively related to feeling interested, excited, inspired, and enthusiastic. The predictions are again based on the item content of measures of the Big Five.

Hypothesis 3 is that when traits are examined as simultaneous predictors of affect, extraversion will be the strongest predictor of PA and positive emotions and neuroticism will be the strongest predictor of NA and negative emotions. This hypothesis is based on the literature that primarily reports relations between these two traits and affect, and therefore it is likely that these traits will be most strongly related to affect.

2.1. Study 1: Method

2.1.1. Participants

Participants were 257 students (100 males, 149 females, 8 unknown, M_age = 23.77, SD_age = 6.78) from Idaho State University who received course credit in exchange for participation. Participants were mostly Caucasian (81.5% Caucasian, 8.7% Hispanic, 9.7% other/unknown).1

2.1.2. Measures and procedures

2.1.2.1. Big Five personality traits. After observing videos and making judgments of personality, participants completed self-report measures. Depending on the study they were in, they completed one of two measures of the Big Five traits. The Big Five Inventory (BFI; John et al., 2008) was completed by 166 participants, and the International Personality Item Pool version of the NEO-PI-R for domains (IPIP-NEO-domains; International Personality Item Pool, n.d.) was completed by 91 participants. The BFI has 44 items and reliably assesses each trait (Cronbach’s α’s = .79–.87; John et al., 2008). The reliabilities for the BFI in the current study were adequate (α’s: extraversion = .87, agreeableness = .79, conscientiousness = .67, neuroticism = .84, openness = .75). The IPIP-NEO-domains scale has 50 items and also reliably assesses all traits (α’s = .77–.86) and correlates highly with the NEO-PI-R (International Personality Item Pool, n.d.). The reliabilities for the IPIP-NEO-domains in the current study were also adequate (α’s: extraversion = .89, agreeableness = .79, conscientiousness = .81, neuroticism = .84, openness = .74).

2.1.2.2. Positive and negative affect. All participants completed the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988), which consists of 10 items assessing PA and 10 items assessing NA. For each item, participants indicate the extent to which they feel each emotion in general. For the general instructions, the PANAS has good internal consistency and adequate test-retest reliability. In the current data, the reliabilities for both subscales were high (α’s: PA = .83, NA = .85).

2.2. Study 1: Results

See online Supplementary materials for descriptive statistics for both studies.

The results will be presented as beta coefficients from simultaneous regressions in which the mean-centered trait scores were used to predict affect. The five traits accounted for significant variance in PA (R² = .32, F(5,249) = 22.98, p < .001); with extraversion (β = .34, p < .001), conscientiousness (β = .26, p < .001), neuroticism (β = -.14, p = .02), and openness (β = .14, p = .01) accounting for unique variance (see Table 1). The five traits also accounted for significant variance in NA (R² = .39, F(5,249) = 31.48, p < .001); with extraversion (β = -.11, p = .04), agreeableness (β = -.17, p = .002), and neuroticism (β = .49, p < .001) accounting for unique variance.

All specific emotions were significantly predicted by the set of traits (positive emotions: R² = .12–.20, p’s < .001; negative emotions: R² = .12–.24, p’s < .001). For extraversion, the largest positive predictors included enthusiastic (β = .34, p < .001), excited (β = .33, p < .001), interested (β = .22, p < .001), and active (β = .22, p < .001); the largest negative predictors included guilty (β = -.20, p < .001), nervous (β = -.14, p = .02), and jittery (β = -.14, p = .02). For neuroticism, the largest positive predictors included distressed (β = .43, p < .001), nervous (β = .40, p < .001), and afraid (β = .38, p < .001); the only significant negative predictor was strong (β = -.34, p < .001). For agreeableness, there was only one significant positive predictor, and it was of small magnitude (enthusiastic; β = .13, p = .03); the largest negative predictors were hostile (β = -.31, p < .001), irritable (β = -.31, p < .001), and upset (β = -.24, p < .001). For conscientiousness, the strongest positive predictors were attentive (β = .30, p < .001), determined (β = .27, p < .001), and alert (β = .26, p < .001); there were not any significant negative predictors. For openness, the strongest positive predictors were inspired (β = .23, p < .001), interested (β = .16, p = .008), and determined (β = .16, p = .008); there were not any significant negative predictors.

Hypothesis 3 was supported, in that extraversion was associated with the largest beta coefficients for PA for 4 of 10 positive emotions (and was .01 less for a fifth emotion); and neuroticism was associated with the largest beta coefficients for NA for 8 of 10 negative emotions.

2.3. Study 1: Discussion

In general, good support was found for the hypotheses. Extraversion was related to PA and neuroticism was related to NA. Extraversion accounted for unique variance in four out of the six predicted emotions (excited, enthusiastic, active, nervous), and in 10 other specific emotions. Neuroticism accounted for unique variance in all nine emotions it was predicted to be most strongly related to, and in two other emotions.

Support was also found for the predictions for the other traits. Agreeableness accounted for unique variance in three out of four predicted emotions, and to two other emotions. Conscientiousness accounted for unique variance in both of the predicted emotions, and in four other emotions. Openness accounted for unique variance in two out of four predicted emotions, and in three other emotions.

Extraversion and neuroticism do appear to be the traits with the strongest links to emotion. Additionally, agreeableness and conscientiousness have a number of links to specific emotions. If the rela-

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1 Percentages are based on N = 195 due to a data recording error.
Table 1
Predicting general affect from mean-centered traits.

<table>
<thead>
<tr>
<th>Trait</th>
<th>Extraversion</th>
<th>Agreeableness</th>
<th>Conscientiousness</th>
<th>Neuroticism</th>
<th>Openness</th>
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<tr>
<td>R²</td>
<td>.32**</td>
<td>.34**</td>
<td>.08</td>
<td>.26**</td>
<td>-.14</td>
</tr>
<tr>
<td>Interested</td>
<td>.12**</td>
<td>.22**</td>
<td>.04</td>
<td>.07</td>
<td>-.08</td>
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<tr>
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<td>.33**</td>
<td>.08</td>
<td>.03</td>
<td>-.03</td>
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<tr>
<td>Strong</td>
<td>.19**</td>
<td>.20**</td>
<td>-.14</td>
<td>.07</td>
<td>-.34</td>
</tr>
<tr>
<td>Enthusiastic</td>
<td>.20**</td>
<td>.34**</td>
<td>.13</td>
<td>.06</td>
<td>-.06</td>
</tr>
<tr>
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<td>.12**</td>
<td>.21**</td>
<td>.03</td>
<td>.16**</td>
<td>-.13</td>
</tr>
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<td>.15**</td>
<td>-.02</td>
<td>.26**</td>
<td>-.10</td>
</tr>
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<td>.13**</td>
<td>.12</td>
<td>.16**</td>
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<td>.21</td>
<td>.08</td>
<td>.27</td>
<td>-.01</td>
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<td>.11</td>
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<td>-.17</td>
<td>-.04</td>
<td>.49</td>
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<td>.00</td>
<td>-.09</td>
<td>-.01</td>
<td>.43**</td>
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<tr>
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<td>.04</td>
<td>-.24</td>
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<td>-.11</td>
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<td>.00</td>
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<td>-.03</td>
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<td>.02</td>
<td>.01</td>
<td>-.01</td>
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</table>

Note: N = 254–256.

* p < .05
** p < .01.

3. Study 2: Responsiveness to affect induction

The next step in examining the associations between personality and affect was to examine changes in affect following affect inductions, as a function of trait levels. The hypotheses are based on the findings from Study 1. This was tested in a manner similar to the study by Larsen and Ketelaar (1991), and was intended to extend their findings to other personality traits and to specific emotions. Three hypotheses were tested.

Hypothesis 4 was that the results of Larsen and Ketelaar (1991) would be replicated, or that extraverts would report higher PA than introverts following a positive affect induction, but would not differ in NA following a negative affect induction; and neurotics would report higher NA than emotionally stable individuals following a negative affect induction, but would not differ on PA following a positive affect induction. The extraversion hypothesis is also consistent with research that finds higher levels of incentive motivation for positive affect priming and quicker responses to PA words among extraverts than among introverts (Robinson et al., 2010); but is inconsistent with research that does not find support of increased reactivity to positive stimuli among extraverts (Lucas & Baird, 2004).

Hypothesis 5 was that more agreeable people would show a larger increase in NA following a negative affect induction than less agreeable people. An alternative hypothesis could be based on previous findings that agreeable people are more engaged by prosocial stimuli and low agreeables are more engaged by antisocial stimuli (Wilkowski et al., 2006), which suggests high agreeables would show larger changes following a PA induction and smaller changes following an NA induction. Hypothesis 6 was that more conscientious or open people would change more on PA following a positive affect induction than less conscientious or open people.

3.1. Study 2: Method

3.1.1. Participants
Participants consisted of 262 students (89 males, 210 females, Mage = 24.43, SDage = 7.03) from Idaho State University who received course credit in exchange for participation. Participants were mostly Caucasian (80.9% Caucasian, 8.7% Hispanic, 10.3% other).

3.1.2. Measures
3.1.2.1. Big Five personality traits. The Big Five Inventory (BFI; John et al., 2008) was used to assess the Big Five personality traits. The reliabilities in the current study were adequate for all traits (x’s: extraversion = .86, agreeableness = .76, conscientiousness = .66, neuroticism = .83, openness = .75).

3.1.2.2. Positive and negative affect. The Positive and Negative Affect Schedule (PANAS; Watson et al., 1988) was used to assess state affect, with instructions to indicate to what extent each emotion was felt “right now, that is, at the present moment.” In the current data, the reliabilities were high before (x’s: PA = .88, NA = .86) and after (x’s: PA = .93, NA = .92) the affect induction.

3.1.3. Procedures
Participants completed the BFI and the baseline PANAS, and then underwent the affect induction. An imagery task, similar to that used by Larsen and Ketelaar (1991), was used to induce positive, negative, or neutral affect. In all conditions, the research assistant read the following instructions:

Two situations will be presented to you on the computer, one at a time. Your task is to imagine each situation as vividly as you can for four minutes. Picture the event happening to you. Try to imagine all the details of the situation. Picture in your mind a time when you were:
“mind’s eye” the surroundings as clearly as possible. See the people or objects; hear the sounds; experience the event happening to you. Think the thoughts you would actually think in this situation, feel the same feelings you would feel in the situation. Let yourself react as if you were actually there. Remember that you will be asked to recall parts of each scenario, and vividly imagining them will help your memory.

Participants were then given 4 min to read and imagine each scenario. The positive induction scenarios were (1) imagine yourself winning $50,000 in a lottery and then taking a vacation to Hawaii, and (2) imagine yourself relaxing and feeling healthy and refreshed after a pleasant exercise session and then taking a walk on a beautiful day and finding a $5 bill. The negative induction scenarios were (1) imagine yourself being expelled from school in an embarrassing manner and then having a close friend die from a painful and incurable disease, and (2) imagine yourself being frustrated by having to sit through a boring and tedious lecture and then being sick in bed with the flu. The neutral induction scenarios were (1) imagine yourself visiting a supermarket, and (2) imagine yourself taking an automobile trip on a highway.

Following the affect induction, participants completed the PANAS again and provided demographic information.

3.2. Study 2: Results

3.2.1. Manipulation check

Personality traits and baseline ratings of affect did not differ across experimental conditions, all $F$s(2,296) < 1.76, $p$s > .17. The effects of the affect manipulation were assessed by examining changes in affect from pre- to post-induction. In the positive condition, PA increased ($M_{diff} = .22, SD = .53, t(97) = 4.09, p < .001, d = .83$) and NA decreased ($M_{diff} = -.14, SD = .34, t(97) = 4.05, p < .001, d = -.82$). In the negative condition, PA decreased ($M_{diff} = -.48, SD = .72, t(98) = 6.73, p < .001, d = -1.36$) and NA increased ($M_{diff} = .45, SD = .76, t(98) = 5.81, p < .001, d = 1.17$). In the neutral condition, PA did not change ($M_{diff} = .00, SD = .57, t(101) = .07, p = .94, d = .01$) and NA decreased ($M_{diff} = -.12, SD = .40, t(101) = 2.99, p = .003, d = -.60$).

3.2.2. Extraversion

Difference scores were used to assess the responsiveness to the affect induction by examining how changes in affect differed across types of induction for those high vs. low in extraversion (as determined with a median split). A median split was used to examine differences in personality to be consistent with Larsen and Ketelaar (1991) and therefore aid in comparison of the current results with these previous findings. Difference scores were the dependent variable in two (high vs. low trait scores) x 3 (affect induction condition) between-subjects ANOVAs. The results of Larsen and Ketelaar (1991) were partially replicated. For difference-score-PA (diff-PA), there was not a main effect of extraversion, $F(1,293) = .58, p = .45, \eta_{p}^2 = .02$, but there was a main effect of affect induction condition, $F(2,293) = 35.45, p < .001, \eta_{p}^2 = .20$, and a marginally significant interaction, $F(2,293) = 2.91, p = .056, \eta_{p}^2 = .02$ (see Fig. 1). For extraverts, diff-PA increased in the positive condition ($M_{diff} = .31, 95\% CI [.15,.47]$, $SD = .55$), stayed about the same in the neutral condition ($M_{diff} = -.100 [-.28, .08], SD = .61$), and decreased in the negative condition ($M_{diff} = -.58 [-.84, -.31], SD = .82$). Based on post hoc one-way ANOVA and Tukey tests, all conditions differed significantly from each other, $F(2,134) = 19.87, p < .001, \eta_{p}^2 = .23$. Tukey post hoc $p$s < .01. In contrast, among low extraversion participants, diff-PA stayed about the same for both the positive ($M = .12 [-.02, .27], SD = .49$) and neutral ($M = .10 [-.05, .24], SD = .52$) conditions, and these conditions did not differ from each other ($p = .96$), but diff-PA decreased for the negative induction ($M = -.42 [-.59, -.26], SD = .64$), and this differed from both other inductions ($p = .001$, $F(2,159) = 17.22, p < .001, \eta_{p}^2 = .18$).

For the NA difference scores (diff-NA), there was only a main effect for affect induction condition, $F(2,293) = 37.68, p < .001, \eta_{p}^2 = .20$. The main effect for extraversion was not significant, $F(1,293) = .82, p = .37, \eta_{p}^2 = .003$, nor was the interaction, $F(2,293) = .08, p = .92, \eta_{p}^2 = .001$. Regardless of extraversion level, NA increased in the negative condition ($M = .45 [.29, .60], SD = .76$) and decreased slightly in the neutral ($M = -.12 [-.19, -.04], SD = .39$) and positive conditions ($M = -.14 [-.21, -.07], SD = .34$). Based on Tukey post hoc tests, the negative condition differed from the neutral and positive conditions ($p < .001$), but the neutral and positive conditions did not differ from each other ($p = .96$).

3.2.3. Neuroticism

For diff-PA, only the main effect of affect induction condition was significant, $F(2,293) = 34.92, p < .001, \eta_{p}^2 = .19$ (see Fig. 2). Based on a post hoc one-way ANOVA with Tukey tests, diff-PA increased in the positive condition ($M = .22 [.11,.33], SD = .53$), stayed the same in the neutral condition ($M = .00 [-.11,.12], SD = .57$), and decreased in the negative condition ($M = -.48 [-.63, -.34], SD = .72$), $p < .04$ (see Fig. 2). There was not a main effect for neuroticism, $F(1,293) = 1.36, p = .24, \eta_{p}^2 = .005$, nor an interaction, $F(2,293) = .12, p = .88, \eta_{p}^2 = .001$.

For diff-NA, only the main effect of affect induction condition was significant, $F(2,293) = 38.18, p < .001, \eta_{p}^2 = .21$. There was not a main effect for neuroticism, $F(1,293) = 1.24, p = .27, \eta_{p}^2 = .004$, nor an interaction, $F(2,293) = .98, p = .38, \eta_{p}^2 = .007$.

3.2.4. Agreeableness

For diff-PA, only the main effect of affect induction condition was significant, $F(2,293) = 35.22, p < .001, \eta_{p}^2 = .19$. There was not a main effect for agreeableness, $F(1,293) = .07, p = .80, \eta_{p}^2 < .001$, nor an interaction, $F(2,293) = 2.02, p = .13, \eta_{p}^2 = .01$. For diff-NA, again only the main effect of affect induction condition was significant, $F(2,293) = 39.00, p < .001, \eta_{p}^2 = .21$, and there was not a main effect for agreeableness, $F(1,293) = 2.25, p = .13, \eta_{p}^2 = .008$, nor an interaction, $F(2,293) = .14, p = .86, \eta_{p}^2 = .001$ (see Fig. 3).

3.2.5. Conscientiousness

For diff-PA, only the main effect of affect induction condition was significant, $F(2,293) = 34.01, p < .001, \eta_{p}^2 = .19$. There was not a main effect for conscientiousness, $F(1,293) = .29, p = .59, \eta_{p}^2 = .001$, nor an interaction, $F(2,293) = .85, p = .43, \eta_{p}^2 = .006$ (see Fig. 4).

For diff-NA, there was a main effect of affect induction condition, $F(2,293) = 38.98, p < .001, \eta_{p}^2 = .21$, but not for conscientiousness, $F(1,293) = 62, p = .43, \eta_{p}^2 = .002$. The interaction was marginally significant, $F(2,293) = 2.68, p = .07, \eta_{p}^2 = .02$. In the negative condition, highly conscientiousness people reported slightly less of an increase in NA than people low in conscientiousness ($M_{diff} = .25 [-.05,.55], SE_{diff} = .15), t(97) = 1.62, p = .11, d = .33$. Diff-NA did not differ for high vs. low conscientiousness in the positive condition ($M_{diff} = -.03 [-.16,.11], SE_{diff} = .07, t(96) = .42, p = .68, d = .09$, or in the neutral condition ($M_{diff} = -.07 [-.23,.09], SE_{diff} = .08, t(63.90) = .92, p = .36, d = .23$).

3.2.6. Openness

For diff-PA, only the main effect of induction condition was significant, $F(2,293) = 34.03, p < .001, \eta_{p}^2 = .19$. There was not a main effect for openness, $F(1,293) = .09, p = .76, \eta_{p}^2 < .001$, nor an interaction, $F(2,293) = .10, p = .90, \eta_{p}^2 < .001$. For diff-NA, again only the main effect of induction condition was significant,
Fig. 1. Effects of affect induction for extraversion.

Fig. 2. Effects of affect induction for neuroticism.

Fig. 3. Effects of affect induction for agreeableness.
F(2, 293) = 37.61, p < .001, \eta^2_p = .20, and there was not a main effect for openness, F(1, 293) = 2.57, p = .11, \eta^2_p = .009, nor an interaction, F(2, 293) = .35, p = .71, \eta^2_p = .002 (see Fig. 5).

3.3. Study 2: Discussion

When examining changes in PA, extraverts reported changes for both the positive and negative inductions, while introverts only reported changes for the negative induction. For NA, extraverts and introverts reported similar changes in affect for all inductions. These findings partly replicate those of Larsen and Ketelaar (1991) and support the view that extraverts are more responsive to reward than introverts, but do not support the view that neurotics are more sensitive to punishment than stables. However, there are other ways to explain this pattern of findings, including differences in processing of information that has positive vs. negative affective implications (Robinson et al., 2010; Wilkowski et al., 2006), and differences in how people react to affective scenarios in terms of activation of thoughts (Meier et al., 2006).

The predictions for agreeableness and conscientiousness (including the alternative prediction for agreeableness) were not supported. Agreeable people did not show larger changes in NA following a negative induction, and more open people did not show larger changes in PA following a positive induction. The prediction that more conscientious people would change more on PA following a positive affect induction was also not supported. Instead, people high and low in conscientiousness responded to the positive induction in the same way. However, there is an interesting difference with NA, where those low in conscientiousness reported larger increases on NA following the negative induction than the highly conscientious. There are several potential explanations for this findings, including that agreeable people could be more responsive to punishment, could process affectively negative information differently, and could have different thoughts activated by negative information, in relation to low agreeables.

4. General discussion

Findings from these studies can be used to refine our understanding of personality traits and how they are related to affective states. Extraversion is broadly related to PA and many specific positive emotions, but has weaker relationships with NA and specific negative emotions. Neuroticism is broadly related to NA and many specific negative emotions, but has weaker relationships with PA and specific positive emotions. Agreeableness is negatively related to NA, and particularly to feeling less irritable, hostile, and upset; but is less strongly related to PA. Conscientiousness is moderately related to PA, and particularly to feeling more attentive, determined, alert, and active; but is less strongly related to NA.
Overall, the current findings support some theoretical understanding of personality traits and their relationships to general affect, and also suggest some interesting refinements.

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Appendix A. Supplementary data

Supplementary data associated with this article can be found in the online version, at http://dx.doi.org/10.1016/j.paid.2014.11.011.

References


Openness is moderately related to PA, and particularly to feeling inspired, interested, and determined; but is unrelated to NA. Overall, extraversion and neuroticism are more closely linked with affect and therefore are likely to be stronger predictors of affect in general, whereas agreeableness, conscientiousness, and openness are likely to function at a more specific level in relation to affect and therefore to be predictive of only some specific emotions.

When examining how personality predicts changes in affect following an affect-inducing procedure, there are no differences based on neuroticism, agreeableness, and openness; but there are differences based on extraversion and conscientiousness. Extraverts, but not introverts, experienced an increase in PA following a positive induction; and people low in conscientiousness experienced a larger increase in NA following a negative induction than highly conscientious people. This finding is consistent with previous work on extraversion, and provides evidence that another personality trait – conscientiousness – also plays an important role in how people respond to affect-inducing situations. This broadened understanding of the links between personality and affect will help future researchers discern the most efficient approach for examining the mechanisms driving these links.

4.1. Limitations and future directions

Both studies rely on self-reports, so it is not possible to determine if the relationships revealed in these studies would extend to cognitions or behavior. However, self-report is the best way to assess levels of experienced-afrect, and affect directly influences cognitions and indirectly influences behavior, while anticipated-emotion directly influences behavior (Baumeister, Vohs, DeWall, & Zhang, 2007). Future studies could benefit from a behavioral measure that would allow for an examination of how personality predicts behavior following differently-valenced affect inductions.

The affect induction scenarios were not intended to pertain to behaviors that related to certain traits, and this may limit the extent to which personality would influence affective reactions. Perhaps the stronger relations between extraversion and neuroticism with affect are in part due to the content of the affect induction scenarios. Future research with scenarios that are tailored to fit different traits may reveal different directions and magnitudes of affect change.

5. Conclusion

Traits have important connections with the general experience of emotions and some connections to affective reactions (DeNeve & Cooper, 1998; Larsen & Ketelaar, 1991). Extravers are more likely to experience PA and less likely to experience NA, and report more change in affect following a positive induction. Neurotics are more likely to experience NA and less likely to experience PA, but do not differ from stables on affective change following induction. This supports the notion that extraverts are more sensitive to rewards, but suggests that the idea that neurotics are more sensitive to punishment may depend on the type of punishment. Highly agreeable people are less likely to experience NA but not more likely to experience PA, and therefore, like neurotics, seem to be more sensitive to punishment, although agreeableness did not predict responsiveness to affect inductions. Highly conscientious people are more likely to experience PA but not less likely to experience NA, and therefore, like extraverts, seem to be more sensitive to reward. However, conscientiousness did not predict change in affect following a positive induction but did predict change in affect following a negative induction. Open people are more likely to experience PA, but openness did not predict responsiveness to affect induction.