

The Extraverted Glasses and the Neurotic Glasses are of Different Colors

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Introduction

Recent experiments have shown that extraversion moderates positive affectivity in response to positive events, whereas neuroticism moderates negative affectivity in response to negative events (e.g., Gross, Sutton & Ketelaar, 1998; Larsen & Ketelaar, 1989, 1991; Rusting & Larsen, 1997).

A question remains as to whether the observed differential reactions reflect yet a more basic difference in *cognitive evaluation*. That is, do extraverts react vigorously to positive events (compared with introverts) because they *perceive* the events more positively, or simply because they tend to *react* more expressively. The same question applies to neurotics (compared with stable individuals) with regard to negative events.

The present study provides a preliminary answer to the question of individual differences in cognitive evaluation of emotionally arousing events. Unlike previous studies, the present study controls for affective states, asks for participants' consciously accessible evaluations of events, and allows the complexity of events' evaluation to express by differentiating positive and negative aspects of each event.

Method

Participants and Procedure

The participants were 226 students from the Hebrew University (63% females, mean age = 23). Participation took place during class sessions in exchange for a course credit.

Materials

Personality. EPQ-R short scale (Eysenck, Eysenck & Barrett, 1985) was used to measure Extraversion ($\alpha=.87$) and Neuroticism ($\alpha=.86$).

Affect. The PANAS (positive and negative affect schedule; Watson, Clark & Tellegen, 1988) was used to assess *momentary* ratings of positive affect ($\alpha=.82$) and negative affect ($\alpha=.90$).

Events Questionnaire (Figure 1). Consisted of 30 descriptions of everyday positive, negative and ambivalent events. The participants were asked to evaluate each event on *both a positivity and a negativity* scale (ranging from 0 = "not at all" to 7 = "extremely"). The events were randomly ordered across three versions of the questionnaire.

Event	Scale	Not at all	Slightly	...	Extremely
1. Receiving a gift	Positivity	0	1	...	7
	Negativity	0	1	...	7
2. Arguing with a friend	Positivity	0	1	...	7
	Negativity	0	1	...	7
3. Going on a blind date	Positivity	0	1	...	7
	Negativity	0	1	...	7

Figure 1. Events Questionnaire – Outline and Examples

Three indices were derived:

- **Positivity** = Scores of the positivity scale averaged across events.
- **Negativity** = Scores of the negativity scale averaged across events.
- **Overall Evaluation** = *positivity* minus *negativity*.

ABSTRACT

Over the past decade evidence has accumulated showing relations between extraversion and positive affect and neuroticism and negative affect. However, little has been said about the source of these relations. The present study proposes cognitive evaluation as a potential source. Specifically, it is argued that when evaluating events, extraverts ascribe weight to their positive aspects whereas neurotics ascribe weight to their negative aspects. In order to explore this idea, 226 participants were asked to evaluate 30 hypothetical everyday events. Each event was evaluated along two independent scales referring to the positivity and the negativity of the event. The participants also completed a personality questionnaire (EPQ-R) and reported on their momentary affective state (PANAS).

Across all events, extraversion was correlated with the positivity evaluation but not with the negativity evaluation, whereas neuroticism was correlated with the negativity evaluation but not with the positivity evaluation. When calculating an overall event judgment (i.e., positivity score minus negativity score), personality affected the evaluation of non-extreme positive and negative events. Specifically, extraversion was correlated with a general positive evaluation of events, while neuroticism with a general negative evaluation. Regression analysis demonstrated the unique contribution of personality beyond the effects attributed to momentary affect. The study shows the systematic difference in the way extraverts and neurotics cognitively evaluate their environment. With that, a new dimension is added to understanding personality-driven aspects of social behavior.

Results

Table 1. Correlation of positivity and negativity evaluation with personality and affect

	Positivity evaluation	Negativity evaluation
Extraversion	.28**	-.11
Neuroticism	-.07	.24**
Positive affect	.31**	.03
Negative affect	.08	.18*

Note. N=226; * = p<.05, ** = p<.01.

- Extraversion and positive affect were associated with evaluating the positivity of events, but not the negativity of events.

Whereas

- Neuroticism and negative affect were associated with evaluating the negativity of events, but not the positivity of events.

Regression analyses showed that...

- Extraversion was associated with positivity evaluation even when the contribution of positive affect was controlled.

Table 2. Regression analysis predicting positivity evaluation

Variable	B	SE B	β
Positive affect	.19	.05	.25**
Extraversion	.18	.06	.20**

Note. N=226; R² = .13, p<.01; ** = p<.01.

- Neuroticism was associated with negativity evaluation even when the contribution of negative affect was controlled.

Table 3. Regression analysis predicting negativity evaluation

Variable	B	SE B	β
Negative affect	.06	.06	.08
Neuroticism	.18	.07	.20**

Note. N=226; R² = .06, p<.01; ** = p<.01.

Overall evaluation

Personality was found to have the most substantial contribution to the prediction of non-extreme events (i.e., events that their average overall evaluation was between -1 and +1 SD of difference in their positivity minus negativity evaluation). The number of events was 17.

Table 4. Hierarchical multiple regression analysis predicting overall evaluation of non-extreme events

Variable	B	SE B	β
Step 1			
Positive affect	.21	.07	.20**
Negative affect	-.14	.06	-.15*
Step 2			
Positive affect	.09	.07	.08
Negative affect	-.01	.07	-.01
Extraversion	.35	.09	.27**
Neuroticism	-.22	.09	-.18*

Note. N=226; R² = .05, p<.01, for step 1; ΔR^2 = .11, p<.01 for step 2; * = p<.05, ** = p<.01.

- Personality contributed to the overall evaluation of the events beyond the effect attributed to momentary affect (ΔR^2 = .11, p<.01).
- Extraversion and Neuroticism had a complementary role in the evaluation:
 - Extraversion contributed to a general positive evaluation of events.
 - Neuroticism contributed to a general negative evaluation of events.

Discussion

- Personality predisposes us to approach events from different perspectives:
 - Extraversion is associated with a focus on the positive aspects (with extraverts seeing more positive aspects compared to introverts).
 - Neuroticism is associated with a focus on the negative aspects (with neurotics seeing more negative aspects compared to emotionally-stable individuals).
- In forming overall evaluation of events, personality mainly affects the approach to relatively mild positive and negative events. With regard to these events:
 - Extraversion is associated with a general positive judgment, while Neuroticism is associated with a general negative judgment. These effects are additive.
- The effects of personality on the evaluation of events is not mediated by affective states.
- Personality, therefore, forms a systematic difference in the cognitive evaluation of events, a process that could explain the differences in the emotional reactivity extraverts and neurotics.

