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### Individual Differences in Need for Affect and Reactivity

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## Individual Differences in Need for Affect and Reactivity

### Abstract

People are different with respect to their emotional propensities, including emotional abilities/skills and emotional style. Regarding emotional abilities/skills, alexithymia (i.e., difficulties identifying and describing emotions; Bagby et al., 1994) and emotional intelligence (Mayer et al., 1999) have been among the more widely studied constructs. Regarding emotional style, research has examined the intensity of emotion (Larsen et al., 1986) and individual differences in general positive/negative affectivity (Watson et al., 1988) or specific emotions (e.g., anxiety; Spielberger, 1985). Notably, very little work has examined people's motivation to pursue experiences that should give rise to strong emotion.

To fill this gap, Maio and Esses (2001) constructed the Need for Affect (NFA) scale, which captures individual differences in the tendency to embrace emotion. Maio and Esses (2001) demonstrated that NFA is empirically related to, but distinct from, other emotion-related individual differences. Their results also showed that individual differences in NFA predict important emotion-related outcomes.

These advances notwithstanding, additional work is needed to more fully illuminate the causes, correlates, and implications of NFA. For example, is a greater need for affect accompanied by stronger reactivity to emotional challenge? The purpose of the present research was to interrogate this question using a variety of emotional reactivity measures.

### METHOD

56 undergraduates participated in the study.

After completing the NFA scale, participants viewed a series of 64 emotion-laden pictures obtained from the International Affective Picture System (Lang et al., 2005). Pictures were grouped into three categories: pleasant (e.g., babies), neutral (e.g., household objects), and unpleasant (e.g., attack). Pictures were shown for 6 s, followed by an intertrial interval that varied between 7 and 10 s.

During picture viewing, the size of participants' eyeblinks in response to startling noises was evaluated using electromyographic recording. Eyeblink startle is a widely used psychophysiological technique for evaluating responses to emotion-laden stimuli (see Blumenthal et al., 2005).

After the first round of picture viewing, during which eyeblink startle data were collected, participants viewed the same pictures a second time. Three additional measures were administered during this phase: (1) the amount of time spent viewing each picture during a free viewing period, (2) self-reported pleasantness, and (3) self-reported arousal.

### RESULTS AND DISCUSSION

For eyeblink startle, free viewing time, and self-reported arousal, NFA did not interact with Picture Type,  $F_s < 1.31$ ,  $p_s > .27$ . Thus, patterns of reactivity to the three categories of pictures were similar regardless of NFA scores. For self-reported valence, there was a significant NFA by Picture Type interaction ( $F[2,102] = 9.98$ ,  $p < .001$ ). High NFA participants reported greater pleasantness while viewing pleasant pictures ( $t = -3.35$ ,  $p < .01$ ), and greater unpleasantness while viewing unpleasant pictures ( $t = 2.33$ ,  $p < .03$ ), compared to low NFA participants.

The self-reported valence results, together with the nonsignificant findings for eyeblink startle, are especially revealing. Although NFA appears to predict self-reports of the pleasantness of emotion-laden stimuli, it does not appear to predict emotional reactivity at the level of the underlying physiological systems responsible for marshaling responses to pleasant and unpleasant stimuli.

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**Disciplines**

Psychology

**Comments**

Poster presented at Faculty Scholarship Celebration, St. John Fisher College, October 25, 2012.

# Individual Differences in Need for Affect and Reactivity to Emotion-Laden Photographs

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## INTRODUCTION

- Need for cognition is a well-established psychological construct (Cacioppo & Petty, 1982). That is, people differ in their tendencies to embrace mental effort and engage in reflective thought.
- Do people similarly differ in their need for affect? That is, do people differ in their tendencies to embrace emotion?
- People differ on numerous emotional dimensions, including emotional skills/abilities (e.g., alexithymia, emotional intelligence) and emotional style (e.g., affect intensity, positive/negative affectivity).
- Very little work has examined people's motivation to pursue experiences that should give rise to strong emotion.
- To fill this gap, Maio and Esses (2001) constructed the Need for Affect scale, which captures individual differences in the tendency to embrace emotion.
- They demonstrated that need for affect is empirically related to, but distinct from, other emotion-related individual differences. They also showed that individual differences in NFA predict important emotion-related outcomes.
- Still, little is known about the causes, correlates, and consequences of individual differences in need for affect.
- For example, is a greater need for affect accompanied by stronger reactivity to emotional challenge?
- In the present study, individuals who varied with respect to need for affect viewed emotional photographs; a variety of measures (i.e., self-report, behavioral, eyeblink startle) were utilized to evaluate their emotional responses to these stimuli.

## AUTHOR CONTACT

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## METHOD

### Participants

- 58 undergraduates (38 females, mean age = 19.2) participated in the study for course credit.

### Materials

- Participants completed the Need for Affect (NFA) scale (Maio & Esses, 2001).
- 64 photographs reflecting widely variable content were obtained from the International Affective Picture System (IAPS; Lang et al., 2005). Pictures were categorized as pleasant, neutral, or unpleasant based upon published normative data.



- The Self-Assessment Manikin (SAM; Lang, 1980) was used to assess participants' self-reported emotional reactivity (valence, arousal) to the pictures.

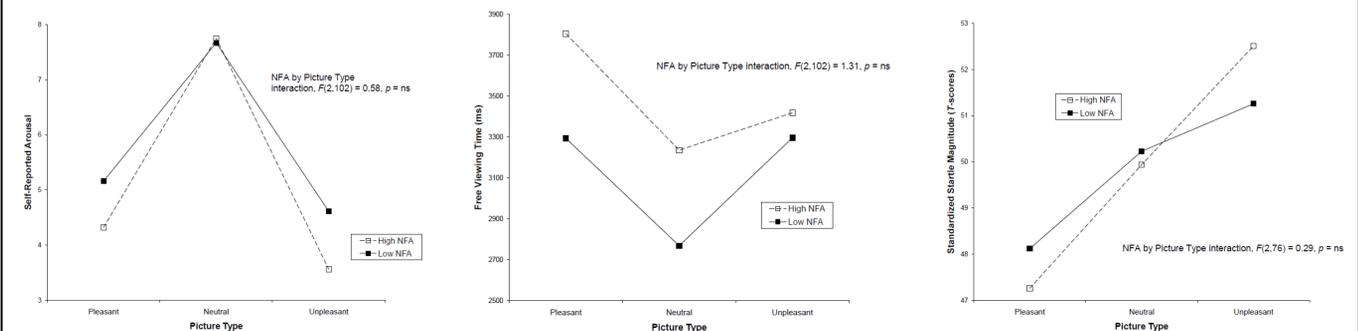
### Procedure

- Participants were seated facing a 17-inch computer screen (2.5 feet away). The participants' skin was then prepared for the startle EMG recording and electrodes were attached following placement guidelines by Fridlund and Cacioppo (1986). Participants viewed the series of 64 pictures during which bursts of 50-ms white noise (95 dB) were unpredictably presented to elicit the startle reflex.
- After collection of physiological data, participants viewed the pictures again. During this viewing, self-report affective data were collected along with the amount of time participants viewed the pictures in a free viewing period.

## RESULTS

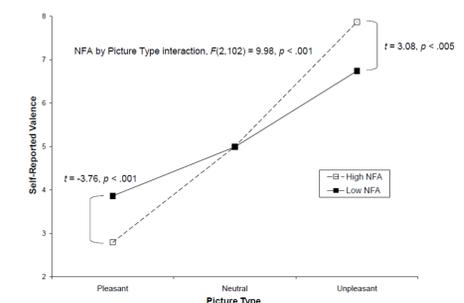
- For self-reported arousal, free viewing time, and startle magnitude, effects of Picture Type were not moderated by NFA, suggesting that similar patterns of emotional reactivity emerged irrespective of need for affect.

**Figures 1 (arousal), 2 (free viewing time), and 3 (startle magnitude).** Emotional reactivity across pleasant, neutral, and unpleasant pictures for the top 25% and bottom 25% of NFA scorers.



- For self-reported valence, Picture Type was moderated by NFA. Follow-up tests indicated that High NFA participants reported greater pleasantness while viewing pleasant pictures, and greater unpleasantness while viewing unpleasant pictures, compared to low NFA participants.

**Figure 4.** Self-reported valence across pleasant, neutral, and unpleasant pictures for the top 25% and bottom 25% of NFA scorers.



## DISCUSSION

- The self-reported valence results, together with the nonsignificant findings for eyeblink startle, are especially revealing..
- Specifically, although high NFA is linked to increased self-reported emotional reactivity, this pattern is not attributable to increased reactivity of the physiological systems responsible for marshaling responses to pleasant and unpleasant stimuli.