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Situational factors and personality traits as determinants of college students' mood

Ewa Goryńska, Mikołaj Winiewski, Marcin Zajenkowski *

University of Warsaw, Poland

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ABSTRACT

In the present study we measured three dimensions of mood (energetic arousal, tense arousal, and hedonic tone) using a student sample in six academic situations. The first three measurements took place during neutral lectures, the fourth and fifth before and after an exam, respectively, and the last during the two weeks after the exam when students' grades were announced. Moreover, we also measured students' personality traits according to the five factor model. The study revealed a few significant results. First, each mood dimension had different dynamics during the semester. Second, the most consistent personality predictors of mood were neuroticism (positive relationship with tense arousal and negative with hedonic tone) and conscientiousness (positive association with energetic arousal). Moreover, the results showed different relationships between tense and energetic arousals across situations, with the weakest association being before an exam.

1. Introduction

Mood and personality have been extensively studied in academic settings. It has been shown that both constructs are significant predictors of academic performance. Among various personality traits, the strongest and most consistent correlations are observed between conscientiousness and educational achievement (Fogarty, Davies, MacCann, & Roberts, 2014; Poropat, 2009). Furthermore, a meta-analytic review revealed that two other personality traits might be also related with academic performance: agreeableness and openness (Poropat, 2009). On the other hand, positive mood have been found to correlate with better grades (Saklofske, Austin, Mastoras, Beaton, & Osborne, 2012). Thus studying personality and mood in educational contexts seems to be of high importance. In the present investigation we were interested in college students' mood and the role that personality traits and situational factors play in determining its level.

In the academic context, many researchers have examined the situational factors influencing mood, such as affective response to examinations. Generally, it has been found that an exam elevates negative affect and anxiety (Watson, 2000; Zeidner, 1998). More recent studies have focused on other mood dimensions such as the three factors distinguished by Matthews, Jones, and Chamberlain (1990): tense arousal (TA; contrasting tension and nervousness with relaxation and calmness), energetic arousal (EA; vigour and energy vs. fatigue and tiredness), and hedonic tone (HT; contrasting pleasantness with unpleasantness). For instance, Marszał-Wiśniewska, Goryńska, and Strelau (2012) reported a large decrease in tension as well as slight increase in EA and HT after an exam. Zajenkowski, Goryńska, and Winiewski (2012) extended these findings by comparing the exam situation with an additional mood measurement taken during a typical lecture. The authors found substantial differences: TA was lower, while HT was higher during the lecture than before and after the exam. Zajenkowski et al. (2012) concluded that more mood assessments might be necessary to fully understand students' reaction to examination stress. Thus in the current investigation, we examined changes in HT, TA, and EA during the entire semester including lectures, an exam and time after the exam. We were interested in whether the mood assessed during the exam differs from the relatively less demanding situations taking place a few weeks before and after the exam.

Besides external situations, there are internal factors determining mood with personality showing the most robust associations (Matthews et al., 1990; Watson, 2000). Most studies analyzed two personality variables: neuroticism and extraversion. Neurotics tend to experience TA and negative affect, while extraverts have a tendency towards high energetic arousal and positive affect (Matthews, Deary, & Whiteman, 2009). Moreover, extraversion is associated with pleasantness (high HT) and neuroticism with unpleasant feelings (low HT; Matthews et al., 1990). Matthews

* Corresponding author.
E-mail address: zajenkowski@psych.uw.edu.pl (M. Zajenkowski).

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et al. (2009) noticed that the personality–mood correlation magnitudes vary across the studies and may depend on the specific context in which the variables are measured. The authors suggested that in situations where subjects simply complete questionnaires, the associations are stronger in comparison to studies where the mood measure is part of a broader procedure, usually prior to performance. Zajenkowski et al. (2012) suggested that these conditions might differ with respect to situational demands, with performance being more stressful. Zajenkowski et al. (2012) compared the correlation magnitudes between students' extraversion, neuroticism and mood in the academic context. They found that the correlation coefficients of extraversion and mood were generally lower before an exam in comparison to during a typical lecture.

Although the study of extraversion and neuroticism is at a relatively advanced stage, much less is known about how other major personality traits are linked to mood. For instance, conscientiousness, agreeableness and openness from the five factor model are moderately linked with high positive affect and low negative affect (see Matthews et al., 2009; Watson, 2000). This pattern of associations has been confirmed also in a recent study conducted in an academic context (Saklofske et al., 2012). Matthews and Zeidner (2012) also showed that conscientiousness is associated with task engagement during cognitive performance. Task engagement is one of the main states of stress and includes the aspect of energetic arousal (Matthews & Zeidner, 2012).

Taking the above results into account, we decided to include a wider range of personality traits in the current study. Specifically, we studied all traits from the five factor model: neuroticism (tendency to experience negative emotions, e.g., anxiety, depression or anger), extraversion (high activity, positive emotions, assertiveness and a tendency towards social behavior), openness to experience (tendency to engage in intellectual activities and experience new sensations and ideas), agreeableness (tendency to be compassionate and cooperative), and conscientiousness (tendency to be organized, self-disciplined, and dutiful, show aim for achievement; Costa & McCrae, 1992). Additionally, we were interested in how the relationship between personality and mood varies across different occasions. Using a student sample, we measured EA, TA, and HT in various academic situations. Generally, we wanted to compare two types of situations: an exam and a lecture. The former is being described in the literature as more demanding, mainly because of the evaluative aspect and a relatively high degree of personal importance (Zeidner, 1998).

In the current study there were six mood assessments. The first measurement was taken during a lecture at the beginning of the semester. The second and third mood assessments took place before and after another lecture. The reason for the latter was to test whether the change of mood in neutral conditions differs from the change during an exam. The fourth and fifth measurement took place before and after an exam, respectively, and the last measurement took place two weeks after the exam during a lecture at the beginning of a new semester. With the last mood assessment we wanted to examine whether the personality–mood relationship will return to the same level as it was during lectures before exam.

Basing on the literature, we expected that the exam to be linked with generally worse mood (increased TA and decreased HT) in comparison to the lectures (Zajenkowski et al., 2012). As regards personality, we expected neuroticism to predict negative mood (high TA and low HT), while extraversion we expected to be associated positively with EA and HT (Matthews et al., 2009). However, the relationship between mood and the latter personality trait may depend on the situation. Particularly, we expected the correlation to be weaker during the exam in comparison to lecture (Zajenkowski et al., 2012). Additionally, we expected conscientiousness, agreeableness and openness to be associated with positive mood (Matthews & Zeidner, 2012; Saklofske et al., 2012).

2. Method

2.1. Procedure and participants

The sample comprised undergraduate students (freshmen) from the University of Warsaw (students were psychology or applied linguistics majors). Information about the study was given to the students during classes at the beginning of the winter semester. The students were informed that they would be tested with several psychological measures, including mood and personality questionnaires. The courses selected for the study ended with a written final exam. There were six sessions during which the measurement took place (see Table 1). The first three were taken during typical lectures: one before a lecture in November, and the other two before and after a lecture in December. The next measurements were taken just before (approximately five to 10 min) and immediately after (approximately five minutes) an exam (January). The last session took place two weeks after the exam (February) when students' grades were announced.

Students taking the course did not have to attend the lectures to pass, but they need to take the final exam. Therefore, in each session we had a different sample size, with the largest number of students during the exam and the participation in the measurements did not overlap highly[1].

2.2. Measures

Mood: The Polish adaptation (Goryńska, 2005) of the UWIST Mood Adjective Checklist (UMACL) was used (Matthews et al., 1990). The scale has 29 items divided into three subscales: 10 items for EA (with poles: energetic-tired), nine items for TA (nervous-relaxed), and 10 items for HT (pleasant–unpleasant). Internal consistency for each subscale is high (Cronbach's alphas ranged from .71 to .90). It has been shown that the Polish version correlates with personality traits, self-esteem and motivational factors (Marszał-Wiśniewska et al., 2012), as well as cognitive tasks measuring attention and memory (Goryńska, 2005). In the present study Cronbach's alphas ranged across measurements from .76 to .79 for TA, .84–.91 for EA, and .82–.86 for HT.

Personality: The NEO-FFI in Polish was used to measure five personality traits. The questionnaire consists of 60 items describing usual behavior. Each scale consists of 12 items and has well established validity and reliability (Zawadzki, Strelau, Szczepaniak, & Sliwinska, 1998). For instance, it has been shown that the questionnaire has the same structure and genetic contribution as the original and correlates with other well established personality measures (Zawadzki et al., 1998). In our sample, we obtained the following results: neuroticism $M = 2.02$, $SD = 0.86$, $\alpha = .90$; extraversion $M = 2.27$, $SD = 0.69$, $\alpha = .85$; openness to experience $M = 2.70$, $SD = 0.49$, $\alpha = .66$; agreeableness $M = 2.48$, $SD = 0.60$, $\alpha = .81$; conscientiousness $M = 2.49$, $SD = 0.74$, $\alpha = .88$.

3. Results

3.1. Mood in different situations

First we examined the intercorrelations for all mood measurements (see Table 2). The results showed a moderate/strong positive relationship between EA and HT and a negative correlation between TA and the other two dimensions (HT and EA). Although, the intercorrelations within situations are generally consistent

[1] Using the sample from the first measurement, we created a logistic model predicting attrition (one – participant in all six measurements, zero – dropped from at least one measurement). Results show that people in the full sample had higher agreeableness and lower extraversion.