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Age, Sex, Conscientiousness, and Thinking Style Predict Academic Avoidance

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ABSTRACT - This study examined demographic and psychological correlates of Avoidant and Participant learning styles. Participants ($N = 83$) were students at a large Midwestern college of education. Age, sex, conscientiousness, and thinking style were all found to be predictors of either Avoidant or Participant learning styles. Older students were less avoidant than younger students. Females were less avoidant than males. Conscientiousness was positively correlated with Participant learning style as was Faith in Intuition. Need for Cognition was negatively correlated with Avoidant learning style.

Academic disengagement has been identified as an important factor in student underachievement. Steinberg (1996) observed that "an extraordinary high percentage of students appear to be alienated and disengaged" (p. 62) and that "when they are in school, a large proportion of students are physically present but psychologically absent" (p. 67). In a large national study, Kuh, Hu, and Vesper (2000) reported that 18% of college undergraduates are disengaged.

Grasha (1996) described two learning styles that attempt to capture academic engagement and disengagement; the Participant style and the Avoidant style respectively. According to Grasha, participant students are:

> *Good citizens in class. Enjoy going to class and take part in as much of the course activities as possible. Typically eager to do as much of the required and optional course requirements as they can* (p. 128).

While avoidant students are:

> *Not enthusiastic about learning content and attending class. Do not participate with students and teachers in the classroom. They are uninterested and overwhelmed by what goes on in the class* (p. 128).

Grasha has created an instrument to measure the participant and avoidant learning styles, the Grasha- Riechmann Student Learning Style Scales (GRSLSS). Besides the Participant and Avoidant constructs, the GRLSS also claims to measure Competitive, Collaborative, Dependent, and Independent learning styles. While, research has raised questions about the psychometric properties and construct validity of the Competitive, Collaborative, Dependent, and Independent learning style scales of the GRLSS, the Avoidant and Participant scales have been show to correlate with academic achievement across several studies (Ferrrari, et al., 1996; Lang, Stinson, Kavanagh, Liu, & Basile, 1999). Constructs similar to Avoidant/Participant learning styles, such as non-academic orientation (Tait & Entwistle, 1996) and undirected learning style (Vermunt & Verloop, 1999), have been advanced by other researchers.

Avoidant/Participant learning styles seem to be conceptually related to the personality dimension conscientiousness, which a number of studies have found be correlated with academic achievement (Busato, Prins, Elshout, & Hamaker, 1999; Busato, Prins, Elshout, & Hamaker, 2000). Conscientiousness has also been found to be negatively correlated with Vermunt's undirected learning style (Busato, Prins, Elshout, & Hamaker, 1999; Busato, Prins, Elshout, & Hamaker, 2000).

Another psychological construct that seems related to Avoidant/Participant learning styles is thinking style, as described in Cognitive Experiential Self Theory (CEST, Epstein, 1994). This models proposes that humans rely on two systems of information processing, one, intuitive and experiential, and, the other, analytic and rational (Epstein, Pacini, Denes-Raj, & Heier, 1996). In this model individuals differ in the extent they rely on the two systems and some research suggests that individuals who are low in analytic processing will avoid more challenging academic tasks (Evans, Kirby, & Fabrigar, 2003).

The purpose of this study is to examine the demographic (age and sex) and psychological correlates (personality and thinking style) of Avoidant and Participant learning styles.

Method

Participants

Participants ($N = 83$) were recruited from undergraduate and graduate classes at a college of education affiliated with a large Midwestern open admissions university. Ages ranged from 19 to 57 with a mean of 29.5 and a standard

deviation of 9.7. There were 65 females, 16 males, and 2 individuals who did not designate their sex. Participants identified themselves as belonging to the following ethnic categories: Black ($n = 8$), Hispanic ($n = 4$), White ($n = 70$) and unidentified ($n = 1$).

Instruments

Grasha- Riechmann Student Learning Style Scales (GRSLS). The GRSLS (Grasha, 1996) is a sixty item instrument that measure six learning styles organized into 3 sets: Completive-Collaborative, Avoidant-Participant, and Dependent- Independent. The GRSLS asks to rate each item on a scale of 1 (strongly disagree) to 5 (strongly agree). A high score on a scale indicates that a participant relies heavily on that learning style and Grasha (1996) suggests that this information might be helpful in selecting instructional strategies. In a large study ($N = 800$) Ferrrari, et al. (1996) found that only the Participant, Avoidant, and Collaborative scales had acceptable levels of reliability and factor analysis provided support for only the Participant – Avoidant scales. Only the Participative-Avoidant scales were of interest for this study. A study by Lang et al. (1994) found that the Participant scale was positively correlated with course interest and course grade and the Avoidant scale was negatively correlated with course interest. The Avoidant scale was negatively correlated with course grade, but the association was not statistically significant.

Ten – Item Personality Inventory (TIPI). The TIPI (Gosling, Renfrow, & Swann, 2003) is a ten item instrument that measures the Big-Five personality dimensions, Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness to Experience. There are two items for each scale and each item is rated from 1 (disagree strongly) to 7 (strongly agree). One item on each scale is reverse scored and score on a scale indicates the degree to which the individual posses that personality trait. Gosling, et al. (2003) found that the TIPI had good test retest reliability and correlated well with other measures of Big-Five personality, other measures of personality, peer-ratings, and self-ratings.

Rational-Experiential Inventory (REI). The REI (Epstein, et al., 1996) is a ten item instrument designed to measure individual differences in the two thinking styles described in CEST. The REI contains two scales of 5 items each, 1) Need for Cognition (NfC), a measure of analytic-rational thinking style; and, 2) Faith in Intuition (FI), a measure of analytic intuitive-experiential thinking style. Items are rated on a scale from 1 (completely false) to 5 (completely true). In a large study ($N = 973$), Epstein, et al. (1996) found the REI to have acceptable levels of internal consistency and to correlate well with other measures of similar constructs. Factor analysis confirmed the existence of a two factor structure.

Results and Discussion

Reliability data are displayed in Table 1. Scores on the Agreeableness, Emotional Stability, and Openness to Experience had unacceptably low reliability ($\alpha < .60$; DeVellis, 1991) and were dropped from any further analysis. As expected, Avoidant and Participant learning styles were negatively correlated with each other ($r = -.51, p < .01$).

Table 1
Coefficient Alphas for Scores

Scale	Cronbach's α
Extraversion	.75
Agreeableness	.48
Conscientiousness	.64
Emotional Stability	.56
Openness to Experience	.50
Need for Cognition	.65
Faith in Intuition	.80
Avoidant Learning Style	.69
Participant Learning Style	.68

Table 2
Correlations and 95% Confidence Intervals with Avoidant and Participant Learning Styles

Measure	Avoidant Learning Style	Participant Learning Style
Age	-.28* (-.46 to -.07)	.17 (-.05 to .37)
Sex	-.34** (-.52 to -.14)	.15 (-.07 to .35)
Extraversion	-.00 (-.22 to .21)	.10 (-.12 to .27)
Conscientiousness	-.14 (-.35 to .08)	.24* (.02 to .43)
Need for Cognition	-.28* (-.46 to -.06)	.11 (-.11 to .32)
Faith in Intuition	-.01 (-.23 to .20)	.25* (.03 to .44)

Note. Values in parentheses represent 95% confidence intervals.
*$p < .05$, **$p < .01$.

Correlations of other variables with Avoidant and Participant learning styles are reported in Table 2. Older students were less avoidant than younger students. Females were less avoidant than males. Conscientiousness was positively correlated with Participant learning style as was Faith in Intuition. Need for Cognition was negatively correlated with Avoidant Learning Style.

The results of this small study suggest that the dimension Conscientiousness, Need for Cognition, and Faith in Intuition are important correlates of Avoidant /Participant learning styles as measured by the GRSLS. In addition, these results are consistent with national trends of greater academic disengagement for younger students and males (Hu & Kuh, 2002).

It is surprising that Faith in Intuition, a measure of experiential and emotional processing, is positively correlated with Participant learning Style. Move over, one would have expected a stronger positive correlation between Need for Cognition, a measure of rational processing, and Participant learning style. Perhaps this is a reflection of recent changes in the pedagogy used in colleges of education, with its greater emphasis on cooperative and group instruction. It is possible that these instructional methods create a positive environment for students who rely on experiential processing while students who rely on rational processing are more participative when other kinds of instruction dominate. Thus, this research may point to an important interaction effect between instruction and student individual difference. Additional research would be needed to confirm this hypothesis.

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