2014

Type A Behavior, Pessimism, and Optimism Among College Undergraduates

Fred B. Bryant
Loyola University Chicago, fbryant@luc.edu

Paul R. Yarnold
Optimal Data Analysis

Follow this and additional works at: https://ecommons.luc.edu/psychology_facpubs

Part of the Psychology Commons

Recommended Citation
Bryant, Fred B. and Yarnold, Paul R.. Type A Behavior, Pessimism, and Optimism Among College Undergraduates. Optimal Data Analysis, 3, : 32-35, 2014. Retrieved from Loyola eCommons, Psychology: Faculty Publications and Other Works,

This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License. © Optimal Data Analysis, LLC, 2014.
Type A Behavior, Pessimism and Optimism Among College Undergraduates

Fred B. Bryant, Ph.D. and Paul R. Yarnold, Ph.D.
Loyola University of Chicago                        Optimal Data Analysis, LLC
Department of Psychology

This study used scores on measures of dispositional optimism and pessimism to discriminate 117 extreme Type A versus 131 extreme Type B college undergraduates. Consistent with a priori hypotheses the analysis revealed that Type As were significantly less pessimistic, and significantly more optimistic, than Type Bs.

Previous theorists and researchers have explored the antecedents and consequences of Type A behavior (TAB), which is characterized by a pervasive achievement orientation, hard-driving competitiveness, speed-impatience, and hostility in response to threat to personal control over salient outcomes; and they have contrasted it with its counterpart Type B behavior, which is characterized by a relaxed, easy-going orientation and lower levels of competitiveness, impatience, and hostility. \(^{1,2}\) Supporting the notion that TAB is adaptive at younger ages, researchers have found that Type As set higher self-standards for performance, \(^{3}\), achieve greater success in school, \(^{4}\) and attain higher occupational status. \(^{5,6}\) In addition, young Type As, relative to young Type Bs, report higher levels of happiness, life satisfaction, value fulfillment, and self-confidence. \(^{7,8}\) These greater levels of subjective adjustment among Type As suggest that they would report higher dispositional optimism and lower dispositional pessimism, relative to Type Bs.

Prior research investigating measures of TAB, pessimism and optimism used multiple regression analysis to examine the interaction between different facets of TAB—such as task focus, speed/impatience, and aggression—and optimism/pessimism on coping behavior, quality of work performance, and psychological well-being. \(^{9-12}\) However, the classification agreement between different questionnaire measures of TAB \(^{13}\) and the gold-standard measure of TAB—the Structured Interview \(^{14}\), increases when increasingly extreme questionnaire scores are used. \(^{15-17}\) Accordingly, the present study compared scores on optimism and pessimism—assessed using the same measures as prior research, between groups of extreme Type As and Type Bs.

The sample was drawn from a large pool of college undergraduates completing a questionnaire battery. \(^{18,19}\) TAB was assessed via the short form of the Jenkins Activity Survey for Students. \(^{20-25}\) In order to maximize the reliability of assignments into A/B categories, normative
guidelines\textsuperscript{26} were followed to obtain an analysis sample consisting of 131 extreme Type B and 117 extreme Type A undergraduates. Scores on measures of dispositional pessimism and optimism were obtained via the Life Orientation Test.\textsuperscript{27,28} Table 1 presents descriptive statistics for the latter subscales separately by A/B Type.

Table 1: Descriptive Statistics for Pessimism and Optimism Subscales, by A/B Type

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Type</th>
<th>Mean</th>
<th>SD</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pessimism</td>
<td>B</td>
<td>6.7</td>
<td>2.94</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>5.9</td>
<td>3.53</td>
<td>5</td>
</tr>
<tr>
<td>Optimism</td>
<td>B</td>
<td>9.2</td>
<td>2.82</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>9.8</td>
<td>3.07</td>
<td>10</td>
</tr>
</tbody>
</table>

Note: \(N_{\text{Type A}}=117, N_{\text{Type B}}=131\). SD=standard deviation.

**Univariate Analysis.** UniODA statistical analysis\textsuperscript{29-31} was conducted using MegaODA software\textsuperscript{32-34} to assess independent associations between subscales and A/B Type.\textsuperscript{35}

For optimism a statistically significant, ecologically weak\textsuperscript{29} effect emerged (\(p<0.05\), ESS=13.3), which was stable in jackknife validity analysis (\(p<0.03\)). The UniODA model was: if optimism<10.5 (61\textsuperscript{st} percentile in the sample), then predict Type B; otherwise predict Type A. This model reveals that the Type Bs had significantly lower optimism scores compared to the Type Bs. The model correctly classified 75% of the Type Bs, and 44% of the Type As. The model was correct 60% of the time a prediction of Type B was made, and 61% of the time a prediction of Type A was made.

**Multivariate Analysis.** Automated classification tree analysis\textsuperscript{36,37} (CTA) was conducted to discriminate A/B Types using pessimism and optimism subscale scores as attributes (gender was included as a potential attribute). Only the same pessimism effect which was identified in univariate analysis emerged: no multivariable model was possible for these data.

Confirming a priori hypotheses, Type Bs had marginally lower optimism scores and significantly higher pessimism scores than Type As. Type Bs' greater pessimism represents a generalized tendency to expect the worst and not to count on good things happening. This negative future orientation may not only undermine Type Bs' motivation to persist in the face of failure, but may also make them less likely to tackle difficult challenges in the first place. Higher dispositional pessimism may also reinforce lower levels of self-confidence and weaken future morale, further compromising the subjective well-being of Type Bs.

**References**


17Yarnold PR, Bryant FB (1988). A note on measurement issues in Type A research: Let’s not throw out the baby with the bath water. *Journal of Personality Assessment, 52*, 410-419.


For exposition and to furnish data for future meta-analysis, means on the subscales were compared between A/B Types using Student’s *t*-test. There was no statistically reliable effect for optimism: *t*(246)= 1.6, *p*<0.12. And, although a reliable effect emerged for pessimism [*t*(246)= 2.1, *p*<0.04], variance on this subscale differed between A/B groups [*F*(116,130)=1.4, *p*<0.05] in violation of the assumption otherwise.


**Author Notes**

Mail: Optimal Data Analysis, LLC  
6348 N. Milwaukee Ave., Suite 163  
Chicago, IL 60646

eMail: Journal@OptimalDataAnalysis.com