Salutary and pathogenic components of the Type A syndrome

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Short Abstract

Item analyses of two Type A measures yield similar subcomponents. The Drivenness subcomponent correlates negatively with personality measures of adjustment, whereas the Job Involvement subcomponent correlates positively with adjustment. This admixture of salutary and pathogenic subcomponents clouds the psychological interpretation of Type A scores.

Topical Session Preferences: Personality; Personality Measurement; Cardiovascular Behavior

No slides will be used.

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(Categories: Personality; Personality Measurement; Cardiovascular Behavior)

Problem and Purpose

The label "Type A" was used initially by two cardiologists, Friedman and Rosenman (1959), to describe a group of behaviors unusually common among coronary patients. Various measures of Type A behavior, including a structured interview (Rosenman, et al., 1964) and a self-report inventory (Jenkins Activity Survey or JAS; Jenkins, Zyzanski, & Rosenman, 1979) predict coronary heart disease and cardiac mortality over and above traditional risk factors (Glass, 1977; Jenkins, 1968; Jenkins, et al., 1979).

Type A measures generally show nonsignificant correlations with standard personality measures, although moderate correlations have been observed with activity, dominance, impulsivity, and aggression (Caffrey, 1968; Glass, 1977; Krantz, 1979). These findings have been cited as evidence that Type A is a unique behavioral syndrome that is relatively independent of other aspects of personality and psychopathology (Glass, 1977; Jenkins, et al., 1979).

The above findings are anomalous and surprising to personality psychologists, who naturally assume that personality has some influence over all forms of behavior—including coronary-prone behavior. Especially surprising is the lack of relationships between Type A and measures of psychological adjustment, because Type A is generally regarded as a kind of pathology, given its relation to heart disease.

A possible explanation for these anomalous findings is that the Type A behavior pattern consists of distinct subcomponents, some of which are positively related to psychological health and others, negatively related to psychological well-being. When the salutary and
pathogenic components are summed together into a total Type A score, they effectively "cancel out" each other such that total Type A scores do not correlate with personality scales measuring adjustment.

Support for the above hypothesis comes from factor analyses showing that both interview and self-report measures of Type A contain similar factors: Hard-Driving Competitiveness, Job Involvement, Speed, and Impatience (Jenkins, et al., 1979; Mathews, et al., 1977; Zyzanski & Jenkins, 1970). Mathews, et al. found that of these factors, only Hard-Driving Competitiveness and Impatience were related to heart disease. Furthermore, only some of the items from these two factors were associated significantly with heart disease. More specifically, involvement themes (enjoying competition and being punctual) were not related to heart disease, but emotional drivenness themes (explosiveness, hostility, impatience) were related to heart disease.

The hypothesis tested in the present study is that, consistent with past research, total Type A scores will not correlate highly with measures of psychological health. However, if one correlates individual items from a Type A measure, one will find that certain items will correlate with psychological adjustment, and others with maladjustment. Specifically, simple competitiveness and job involvement will be related to good adjustment, while drivenness and impatience will be related to maladjustment.

Subjects

Two groups of subjects were used. The first were 67 male under-
Type A

3 graduates from two fraternities at The Johns Hopkins University. The second group of subjects were 58 undergraduates (29 male, 29 female) from introductory psychology classes at the Pennsylvania State University, DuBois Campus. Subjects in the first group took the measures described below as part of a larger study of peer ratings. The second group completed a different set of measures as part of their course experience.

Procedures

Type A behavior was measured in the first group with a student version of the Jenkins Activity Survey (JAS; Glass, 1977). Anxiety and interpersonal effectiveness were chosen as global indices of psychological maladjustment/adjustment. Anxiety was assessed by means of the A Trait scale from the State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, & Lushene, 1970). Interpersonal effectiveness was assessed with Hogan's Empathy Scale (Hogan, 1969; Johnson, Cheek, & Smither, in press), Holland and Baird's (1968) Interpersonal Competency Scale, and Hogan and Johnson's (1981) Ascendance scale.

To insure that any findings in the first group were not an artifact of the measures used, several additional measures were administered to the second group of subjects. Type A behavior was assessed with a scale developed by Cooper (1981). Psychological adjustment was measured with the Well-Being scale of the California Psychological Inventory (Gough, 1975). Social adjustment was measured with the Ascendance scale described above and with Hogan and Johnson's (1981) Adjustment scale.

For each sample total Type A scores were correlated with the
remaining measures. Next, items were assigned to one of the three major factors identified by past research (Hard-Driving Competitiveness, Job Involvement, or Speed and Impatience). Each individual item on the Type A measures was correlated with the remaining scales. For each factor, the number of significant positive, significant negative, and nonsignificant correlations between the Type A items and measures of adjustment was noted. The relative frequency of positive, negative, and nonsignificant correlations across factors was compared with a chi-square test. Finally, individual items that correlated most highly with the measures of adjustment and maladjustment were identified, and the content of these items was inspected for common themes.

Results

In the first group, total JAS Type A scores showed the following correlations with the remaining measures: Ascendance (0.37, p < 0.01); Anxiety (0.15, ns); Empathy (-0.20, ns); and Interpersonal Competency (0.24, p < 0.05). In the second group, Cooper Type A scores showed the following correlations: Ascendance (0.24, p < 0.05); Adjustment (-0.18, ns); and Well-Being (-0.25, p < 0.05). Consistent with past research, these correlations range from nonsignificant for measures of personal adjustment (Anxiety, Adjustment) to modest with measures of activity and dominance (Ascendance).

Of the 108 possible correlations between individual Type A items and the personality measures, 30 were significant at the 0.05 level, which is far above what would be expected by chance. The Hard-Driving Competitiveness factor showed four positive correlations between its items and adjustment, nine negative correlations, and 29 nonsignificant
Type A correlations. The Job Involvement factor showed seven positive correlations with adjustment, 1 negative correlation, and 19 nonsignificant correlations. The Speed and Impatience factor showed three positive, six negative, and 30 nonsignificant correlations. The relative frequency of positive, negative, and nonsignificant correlations differed significantly across factors, $\chi^2(4) = 10.98, p < .05$.

Inspection of individual items within factors showed that only certain types of items followed the general pattern of correlations of the three factors. On the Hard-Driven Competitiveness factor, only those items describing drivenness, seriousness, and need for job recognition were related to maladjustment. Items describing simple competitiveness, on the other hand, were positively related to adjustment. Items that are apparently irrelevant to adjustment are those dealing with deadlines, responsibility, and ambition.

Of the Speed and Impatience items, those describing hurriedness, rushing, and impatience are related to maladjustment. Items that refer to a fast tempo and emphatic interpersonal style appear irrelevant to psychological health.

Of the Job Involvement items, those dealing with the amount of work one does in the evening and during vacations seem to bear no relationship to adjustment. The rest of the items, which cover a wide range of involvement themes, are related positively to some aspect of adjustment.

Conclusions

The above findings support the idea that the Type A syndrome is a heterogeneous mixture of salutary and pathogenic components. Items that tap a theme we might label "Involvement" (enjoying competition, working
hard, taking on leadership roles) appear to be related positively to adjustment, while items that describe a "Drivenness" theme (hurriedness, impatience, seriousness) are related to maladjustment. This heterogeneity in the Type A measures' item pools may explain why Type A typically fails to correlate with traditional personality dimensions, including adjustment. When the salutary and pathogenic themes are combined into a total scale score, the two themes cancel out their separate correlations, so that full scale scores are unrelated to adjustment.

The present study suggests, then, that (a) traditional personality variables like adjustment may be important for understanding the Type A syndrome; (b) the item content of Type A measures contains both salutary and pathogenic components; and (c) that current measures of Type A might be improved by using items describing drivenness and eliminating items describing involvement.
References


Medical research is trying to track down the causes of several diseases which are attacking increasing numbers of people. This survey is part of such a research effort.

Please answer the questions below by marking the answers that are true for you. Each person is different, so there are no "right" or "wrong" answers. Place all of your answers on the separate answer sheet.

1. Is your everyday life filled mostly by:
   a. problems needing solutions.
   b. challenges needing to be met.
   c. a rather predictable routine of events.
   d. not enough things to keep me interested or busy.

2. When you are under pressure or stress, do you usually:
   a. do something about it immediately.
   b. plan carefully before taking any action.

3. Ordinarily, how rapidly do you eat?
   a. I'm usually the first one finished.
   b. I eat a little faster than average.
   c. I eat at about the same speed as most people.
   d. I eat more slowly than most people.

4. Has your spouse or some friend ever told you that you eat too fast?
   a. Yes, often.
   b. Yes, once or twice.
   c. No, no one has told me this.

5. When you listen to someone talking, and this person takes too long to come to the point, do you feel like hurrying him along?
   a. Frequently.
   b. Occasionally.
   c. Almost never.

6. How often do you actually "put words in his mouth" in order to speed things up?
   a. Frequently.
   b. Occasionally.
   c. Almost never.
7. If you tell your spouse or a friend that you will meet them somewhere at a definite time, how often do you arrive late?
   a. Once in a while.
   b. Rarely.
   c. I am never late.

8. Do most people consider you to be:
   a. definitely hard-driving and competitive?
   b. probably hard-driving and competitive?
   c. probably more relaxed and easy-going?
   d. definitely more relaxed and easy-going?

9. Nowadays, do you consider yourself to be:
   a. definitely hard-driving and competitive?
   b. probably hard-driving and competitive?
   c. probably more relaxed and easy-going?
   d. definitely more relaxed and easy-going?

10. How would your spouse (or close friend) rate you?
    a. definitely hard-driving and competitive?
    b. probably hard-driving and competitive?
    c. probably more relaxed and easy-going?
    d. definitely more relaxed and easy-going?

11. How would your spouse (or best friend) rate your general level of activity?
    a. Too slow. Should be more active.
    b. About average. Is busy much of the time.
    c. Too active. Needs to slow down.

12. Would people who know you well agree that you have less energy than most people?
    a. Definitely yes.
    b. Probably yes.
    c. Probably no.
    d. Definitely no.

13. How was your temper when you were younger?
    a. Fiery and hard to control.
    b. Strong, but controllable.
    c. No problem.
    d. I almost never got angry.
14. How often are there deadlines in your courses? (If deadlines occur irregularly, please circle the closest answer below.)
   a. Daily or more often.
   b. Weekly.
   c. Monthly.
   d. Never.

15. Do you ever set deadlines or quotas for yourself in courses or other things?
   a. No.
   b. Yes, but only occasionally.
   c. Yes, once per week or more often.

16. In school do you ever keep two projects moving forward at the same time by shifting back and forth rapidly from one to the other?
   a. No, never.
   b. Yes, but only in emergencies.
   c. Yes, regularly.

17. Do you maintain a regular study schedule during vacations such as Thanksgiving, Christmas, and Easter?
   a. Yes.
   b. No.
   c. Sometimes.

18. How often do you bring your work home with you at night or study materials related to your courses?
   a. Rarely or never.
   b. Once a week or less often.
   c. More than once a week.

19. When you are in a group, do the other people tend to look to you to provide leadership?
   a. Rarely.
   b. About as often as they look to others.
   c. More often than they look to others.

20. Compared to the average student at my university, in my sense of responsibility I am:
   a. much more responsible.
   b. a little more responsible.
   c. a little less responsible.
   d. much less responsible.

21. Compared to the average student at my university, I approach life in general:
   a. much more seriously.
   b. a little more seriously.
   c. a little less seriously.
   d. much less seriously.
Directions for scoring and interpreting the Jenkins Activity Survey and Cooper Inventory

Jenkins Activity Survey

Look over your answers, and give yourself one point for each time you gave one of the following responses:

1. a or b 7. c 12. d 17. a
2. a 8. a or b 13. a or b 18. c
3. a or b 9. a or b 14. a 19. c
4. a 10. a or b 15. c 20. much more responsible
5. a 11. c 16. c 21. Much more seriously
6. a

Add up your total points and place that number in the blank.

If your total score is 11 or higher, you probably have a Type A personality. If your score is between 8 and 10, you have Type A tendencies. If your score is between 5 and 7 you have Type B tendencies. If your score is less than 5 you probably have a Type B personality.

A description of the Type A and Type B Personalities is presented below. First, however, score your Cooper Inventory to confirm your personality type.

Cooper Type A Inventory

Carefully add all of the numbers below the blanks that you checked. Add them again, to be sure you added correctly. Place that number in the following blank.

Scores of 111 or higher indicate a Type A personality. Scores between 92 and 110 indicate Type A tendencies. Scores between 73 and 91 indicate Type B tendencies, and scores less than 73 indicate a Type B personality.

If your Jenkins and Cooper scores give you totally different results, your Jenkins score is probably more accurate. Chances are, though, that the two inventories will give you similar results. Read the following descriptions of Type A and Type B personalities to confirm your self-assessment.

Type A and Type B Behavior

The label "Type A" was used initially by two cardiologists, Friedman and Rosenman, to describe a group of behaviors unusually common among coronary patients. These behaviors include competitiveness, a high level of activity, impatience, a rapid pace, a sense of hurriedness and time urgency, and high achievement strivings. Type A behavior has been found to predict coronary heart disease and cardiac mortality over and above traditional risk factors like obesity and smoking. The label "Type B" refers to the absence of Type A behaviors; persons exhibiting Type B behavior are far less likely to suffer coronary problems.

At the present, no one knows why Type A behaviors may lead to heart problems. Not all people who are ambitious and hard-working have heart attacks; some merely become rich and famous. Dr. Johnson feels that perhaps those who work hard out of fear or guilt are the ones who are stressing their cardiovascular system. He encourages Type A individuals to ask themselves: "Why am I pushing so hard?"