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ABSTRACT

Type A individuals are characterized by a sense of urgency, hard-driving competitiveness, and hostility which are manifested in their attempts to establish and maintain control over personal and environmental events. In order to investigate conformity and interpersonal dominance in Type A personalities, 87 male college students completed the Jenkins Activity Survey (JAS), a measure of coronary proneness. Students located at either extreme of the scale (12 Type A; 11 Type B) participated in the conformity experiment by making a series of stimulus discriminations. On 4 of 16 trials, a subject responded after three confederates had agreed on an incorrect response, and then again when seated alone in another room. Normative data were collected also on a larger sample of subjects. Analyses of results showed that, under social pressure, Type B subjects conformed to a significantly greater degree than Type A subjects. Data on a subset of the sample and the larger normative sample indicated that social pressure to conform was responsible for differences in judgmental accuracy of stimuli (conformity measure). Additional research is needed to evaluate task salience, status of group members, and subjects' perception of the consequences of their nonconformity in order to understand more fully the differences in conformity for Type A and Type B individuals. (BL)

Conformity, Interpersonal Dominance and the Type A Personality

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Abstract

This study was conducted to evaluate differences in conformity between Type A (coronary-prone) and Type B (noncoronary-prone) individuals. Based on previous findings indicating that 1) Type A's are more dominant than Type B's and 2) dominance is negatively correlated with conformity, it was hypothesized that Type A subjects would exhibit greater nonconformity than Type B subjects. Eighty-seven male undergraduates were administered a measure of coronary-proneness. Subsequently, extreme A (n=12) and B (n=11) subjects were run using an Asch conformity paradigm. The results showed that Type B subjects conformed twice as much as Type A's, $t(21) = 2.34$, $p < .02$. The same task administered to a subset of the sample and a larger normative sample indicated that social pressure to conform was responsible for differences in judgemental accuracy of stimuli (conformity measure). Task salience, the status of group members, subjects' interpretation of the consequences of conformity and physiological mechanisms mediating dominance and cardiovascular disease are discussed in the context of recommendations for future research.

The Type A, or coronary-prone behavior pattern, is "...an action-emotion complex that can be observed in any person who is aggressively involved in a chronic, incessant struggle to achieve more and more in less and less time, and if required to do so, against the opposing efforts of other things or other persons" (Friedman & Rosenman, 1974, pg. 84). Three dimensions characterize the Type A behavioral constellation, i.e., sense of time urgency, hard-driving competitive and hostility. A vast literature has recently emerged that investigates the behavioral correlates of the coronary-prone personality.[1] Thus, there exist separate but overlapping literatures on time urgency (Glass, Snyder, and Hollis, 1974; Gastorf, 1980; Yarnold and Grimm, in press), competitiveness (Gastorf, Suls, & Sanders, 1980; Matthews, Helmrich, Beane, and Lucker, 1980; Van Egren, 1979) and hostility (Carver and Glass, 1978; Glass, 1977; Glass, Snyder and Hollis, 1974).

According to Glass (1977), the noted dimensions of the coronary-prone personality are manifestations of a desire to establish and maintain control over personal and environmental events. Indeed, self-report measures of dominance are typically found to be significantly associated with measures of the Type A behavior pattern (see Glass, 1977; pg. 185), and is consistent with the Type A's desire for control, in this case control over another. However, little attention has been given to observing dominance behaviors among Type A and B individuals in a controlled laboratory setting. Van Egeren (1979) found, in a modified "mixed motive" game, that Type A's exhibited more attempts to control and guide the behavior of the other person. One way in which dominance can be expressed is through resistence in following the consensus of a group. Several studies have found that dominant individuals conform less than submissive individuals (Beloff, 1958; Helson, Blake, Mouton & Olmstead, 1956; Mann, 1959; Mouton, Blake, & Olmstead, 1956). Following this line of

reasoning, the present study was designed to test the hypothesis that Type A subjects would conform less than their Type B counterparts.

Method

Subjects

Eighty-seven male introductory psychology students were administered the student version of the Jenkins Activity Survey (JAS), a measure of coronary-proneness (Glass, 1977). Male subjects located on the extreme ends of the scale were invited to participate. Based on a post-experimental questionnaire, the data of three subjects (two B's and one A) were discarded because they ascertained the purpose of the experiment. The final sample consisted of 12 A's and 11 B's. The mean JAS score for the 87 males was 8.13 with a standard deviation of 3.42, which is similar to the population mean reported in other studies (c.f. Glass, 1977). The mean JAS score for Type A subjects included in the present study was 12.6 ($\bar{z}$ = 1.22) and the mean for Type B subjects was 4.3 ($\bar{z}$ = -1.38; $t(21) = 10.45$, $p < .0001$). The mean age of A's = 21.2, and B's = 20.9.

Procedure

The experiment was conducted in a room containing four chairs 1.3 meters from a screen upon which stimuli were projected using an overhead projector. The procedure was based on Asch's conformity paradigm (Asch, 1956) wherein three confederates and the subject make judgments regarding differences among stimuli. After being told the purpose of the experiment was to judge the differences among stimuli, the subject was seated with the three confederates. Sixteen transparencies were projected, each containing four stimuli. Each projection required a different discrimination (e.g., What is the shortest line?; Which is the largest figure?; What is the next number in the sequence?; Which angle is the smallest?); four slides of each

category were projected. The order of responding among the individuals was varied so that the subject went last on only four critical trials (3, 8, 12, & 16). It was arranged so that on critical trials in which the subject went last, the three confederates offered the same response which in reality was incorrect. On the noncritical trials, conferates occasionally disagreed (1% of the time). The subject' response to stimuli on critical trials was used to determine a measure of conformity.

After the judgment phase of the experiment the subject completed a manipulation check questionnaire including the items, "Did you feel you were being deceived in any way? If so, in what way?" and "What was the purpose of this experiment?" Data from subjects who mentioned "conformity" or "reaction to peer pressure" were discarded. Next, the subject was presented with xerox copies of the sixteen transparencies and asked to identify the correct response, thus allowing for a measure of accuracy in the absence of social pressure.

In order to obtain normative data on the discriminability of the stimuli on each transparency, the base rate of correct responses of A's and B's not under social pressure was obtained from 45 male undergraduates enrolled in the same introductory class (all members of the class had one month previously completed the JAS). Transparencies were presented in the same order and all subjects were asked to privately record their judgments. Although only data of males were included, the task was presented in the context of course discussion sections including 10 to 30 students. Of the subjects participating in this normative testing, 6 A's and 5 B's had been included in the conformity portion of the study, thus, in addition, allowing for a comparison of their responses under social pressure and subsequent nonsocial influences.

In summary, A and B subjects were asked to make a series of stimulus discriminations. On four of sixteen trials the subject was forced to respond

after, three confederates had consensually agreed on what was an incorrect response. Immediately after the subject responded in a group context, he was seated alone in another room and once again presented with the sixteen stimuli and asked to identify the correct response. A week later normative data was collected on a larger sample of subjects in order to obtain base accuracy rates. Approximately half of the experimental subjects participated in the normative testing phase. The experimenter was unaware of each subject's A/B classification.

Results

A conforming response was defined as the subject offering the same incorrect judgment voiced by the confederates on a critical trial (dummy coded as 1 for each conforming response). A nonconforming response occurred when the subject differed from the group consensus on a critical trial (dummy coded as 0 for each trial). Thus, a subject's conformity score could range from 0 to 4. The results indicated that Type B subjects conformed twice as often as Type A subjects. (B's, $\bar{x} = 2.0$, s.d. = 1.2; A's, $\bar{x} = 1.0$, s.d. = .85; F_{max} test between the variance was nonsignificant, $F(10,11) = 1.92$.) A one-tailed t-test performed on these data was significant; $t(21) = 2.34$, $p < .02$.

Immediately after subjects were required to respond under group pressure they responded in isolation to the same stimuli. A t-test was performed on the accuracy of judgments on critical items. While Type B subjects were found to conform significantly more than Type A's on critical items under social pressure, no significant difference between A's and B's was revealed in the absence of the group, $t(21) < 1$, ns. This was due to the fact that Type B subjects changed their judgments in line with the correct response.

Normative data were obtained to ascertain 1) whether or not a nonexperimental group of Type A and B subjects differ in judgmental accuracy and 2) whether or not experimental subjects differ in accuracy when not responding under conformity pressure; the latter question serving as a test-retest replication of judgmental

accuracy of experimental subjects previously responding in the absence of consensual public judgments. The first analysis consisted of those subjects who did not participate in the conformity experiment. Of this sample, A's n=14 had a JAS mean of 11.1 while B's (n=20) had an average score of 5.4. This mean difference was highly significant, $t(32) = 9.97$, $p < .0001$. A t-test between Type A and B nonexperimental, normative subjects on accuracy was nonsignificant, $t(32) < 1$, ns. Moreover, practically no errors in judgment were noted, attesting to the fact that the correct stimulus was obviously discriminable from an incorrect stimulus. Six A's and five B's participating in the experiment also were present for the normative testing. A t-test on judgmental accuracy scores between these two groups was nonsignificant, $t(9) < 1$, ns; thus replicating the previous finding that experimental subjects only respond differently under pressure to conform.

Discussion

It was shown in the present study that, under social pressure, Type B subjects conformed to a significantly greater degree than Type A subjects. The fact that subsequent normative testing and an analysis of stimulus judments between experimental A's and B's not under social pressure to conform rather than perceptual differences among the groups account for the findings. Moreover, the conformity exhibited by Type B subjects appears to have been a transient phenomenon under the control of group pressure since these subjects readily offered the correct response to the same stimuli in the absence of the group. However, in the case of Type A's, their nonconforming responses were also accurate judgments. The question arises, were Type A subjects resisting group pressure in order to provide veridical responses or were they being oppositional in which case accurate judgments were a by-product? Additional between groups analyses were conducted on noncritical trials in which the subject responded after one or two confederates gave the correct response. Rarely did subjects respond contrary to the group and

no A/B differences were noted (both t's < .60), thus arguing against the oppositional hypothesis.

However, while it is true that 1) Type A subjects score higher on self-report measures of dominance (Glass, 1977), 2) dominant subjects conform less than submissive subjects (Beloff, 1958; Helson, et al., 1956; Mann, 1959; Mouton, et al., 1956), and 3) the present results demonstrate that Type A subjects conform less that Type B subjects, this study did not directly assess dominance. Rather, the obtained differences in conformity more accurately represent differences in subjects' reactions to the "expressed dominance" of others. In addition, since the subject sample was comprised of only males it is unknown whether or not the results can be generalized to females. Research is currently under way in our laboratory to directly observe dominance among A's and B's using a conflict resolution paradigm. Preliminary results indicate that when Type A's negotiate with Type B's, final agreements are almost always closer to the initial position of the Type A person.

We would not want to conclude that Type A individuals exhibit a generalized nonconforming posture when subjected to social pressure to conform. The present study established a conformity press under circumstances rather isolated from the subjects' daily activities and long term concerns (Klinger, 1975). Imagine the Type A person, achievement oriented, striving for occupational advancement in an organizational structure, confronted at a business meeting with a unanimous decision by his/her employers. It is conceivable that under such a contingency Type A's would be more conforming than Type B's. Additional research is needed to evaluate the impact of task salience, status of group members and subjects' perception of the consequences of their nonconformity in order to gain a fuller understanding of the conditions under which Type A and B individuals differ in conformity.

Finally, human research is needed to investigate the relation between the Type A behavior pattern/dominance complex and cardiovascular disease. Animal research

has indicated that dominance struggles lead to fixed hypertension (Henry, Stephens, & Santisteban, 1975), and elevated plasma corticosterone (Bronson, 1973). Moreover, corticosteroids have been shown to play a significant role in the etiology of cardiovascular disease (Goldstein & Brown, 1977; Ross & Glomset, 1976; Kuller, 1976). Perhaps the Type A individuals who succumb to cardiovascular disease are those with a strong need for dominance and find themselves in situations (occupational, peer and/or marital) that elicit a chronic struggle for ascendancy. Future research is needed to define the situational parameters of the Type A's dominance behavior, and the physiological concomitants of dominance struggles. Research of this nature may bring us closer to identifying what behaviors of the Type A person should be altered to reduce the risk of heart disease.

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1. Although we use the terms "Type A" and "coronary-prone" synonymously, it sould be noted that it has yet to be documented that young adults classified as "Type A's" are at a greater risk of developing coronary artery or heart disease than their Type B counterparts.

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