Rorschach Tolerance and Control of Stress Measures

Beliefs About How Well Subjective States and Reactions Can Be Controlled

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Summary: How people perceive situations and their own reactions to these situations relates to how well they tolerate and control stress. In this paper, the hypothesis was tested that D and AdjD, Rorschach measures of tolerance and stress control, can be shown to relate to individuals’ beliefs, both about whether it is possible to control internal states and their perceptions of how well they themselves do so. The study was carried out in a nonclinical population. The findings were, first, that variations in levels of D, but not AdjD and its component variables, were associated with lower or higher scores on the Perceived Control of Internal States Inventory (PCOISI; Pallant, 1998), a multidimensional questionnaire on individuals’ beliefs about the possibility of controlling internal states.

Introduction

Cognitive Components of D and AdjD

D measures the ability to maintain control in demanding or stressful situations, while AdjD, like D except that all but one m and one Y is removed, measures an individual’s stable capacity for dealing with stress (Exner, 1993). The two variables thus distinguish between the capacity to deal with relatively long term feelings of stress (AdjD) and currently perceived stress (D), influenced as it is by current situations (Weiner, 1998). This paper examines whether the capacity for control and tolerance of stress explicitly involves a cognitive element in the form of beliefs about stress and how controllable it might be. Both AdjD and D should involve an individual’s having the belief that there are strategies to control internal re-

actions to stressful situations and further, the perception that he or she is able to access and use these resources.

As Weiner (1998) pointed out, all the determinants coded in the Comprehensive System, except dimensionality (FD) and reflections (Fr/rF), are combined in the formation of D. Its main components are EA and es. EA is an index of available resources for formulating and implementing deliberate strategies for coping with experienced demands (Weiner, 1998). The variable es measures the emotional and ideational demands perceived to be made on individuals from internal and external sources (Weiner, 1998). Of the two variables composing EA, that is M and WSumC, M represents an ideational style and WSumC an emotionally expressive style. It is likely therefore that the interpretation of M, could include beliefs about control. Subjects who give more M, for example, are “oriented toward more socially effective behaviours” (Exner, 1994). M, however, is a complex variable...
that seems to be implicated in a variety of psychological phenomena. For this reason, it is unlikely to be related directly and without qualification to an individual’s belief in the control of internal states. The same argument applies to active human movement responses $M^*$. Subjects with three or more passive human movement responses, $M^p$, however, may feel some hesitation to believe that they can show initiative in stressful situations. Exner’s (1993) values for $M^p$, for the normative nonpatient adult sample are $M = 1.31$ and $SD = .94$. That these individuals do seem to indulge in fantasy may support this reasoning. With regard to $WSumC$, subjects with this personality style may not be much influenced by cognitive beliefs when $WSumC$ is elevated. Weiner (1998) pointed out that individuals with either of these styles “have considerable control over them and can initiate and discontinue them as they chose” (p. 139). Implicit in this statement is the idea that this control is not arbitrary but is deliberately guided. Subjective beliefs about which of the two styles is appropriate at any given time, may be part of this deliberate guidance. EA therefore carries the clear implication that ideational beliefs may be involved in an individual’s strategies, both for controlling subjective perceptions of how he or she feels, and for coping with situations, including presumably particularly stressful situations. Any imbalance between the two components of EA is likely to affect the nature of these strategies and how frequently one is selected over the other.

The second component in $D$, $es$, contains all the variables in $eb$, i.e., $SumFM + m$ and the Sum of the variables $C^*, T, Y$, and $V$. As mentioned above, the difference between $D$ and $AdjD$ is “all but $m$ and $Y’$ (including $FY$ and $YF$)” (Exner, 1993, p. 185). Both of these last variables have been consistently linked with situational stress. The variable $m$ may reflect the belief that one cannot control the particular, situational stressors confronting one. This interpretation of $m$ carries the suggestion of feelings of helplessness (Exner, 1993) and, where $m$ is elevated, of people being compelled to behave against their wishes or with forces outside their control impinging on them (Weiner, 1998). McCown et al. (1992) reported a study, focussing on $m$ and $Y$, in which stress induced in laboratory conditions was controllable or uncontrollable by different subject groups. They found $m$ to be associated with stress whether it was controllable or not. They interpreted $m$ as representing the subjects’ “active struggle” to make stress manageable. Presumably, in order to do this, subjects had to think about the stressful situation confronting them and to draw on their internal resources to formulate some strategy to manage it. McCown et al., found that $Y$ was associated only with uncontrollable stress. They interpreted this finding as indicating that $Y$ represented an assessment on the part of their subjects that a particular stressor was either uncontrollable or that attempts at coping with it would be ineffective or impossible. This interpretation of $Y$ fits with the consensus view in the literature (Exner, 1994).

The interpretations of two of the other variables constituting $D$, specifically $C^*$, and $V$, seem to implicate the use of conscious, cognitive effort. Exner (1993) identified $C^*$, when greater than two, as an indicator of serious depressive disturbance. He concluded that it pointed to an internal constraining of negative emotion. This would suggest that individuals with elevated $C^*$ struggle to manage negative thoughts and feelings. $V$, similarly, seems to involve a cognitive component, namely, that of critical introspective thinking (Weiner, 1998).

A final variable, the Constriction Ratio ($SumC’ / WSumC$) may indicate a maladaptive constraining of an individual’s capacity to express affect, where $SumC’ > WSumC$. Subjects, for whom this condition holds are often aware that they have strong feelings which they are unable to express (Weiner, 1998). This could also be seen as an inhibitory condition in which negative thoughts suppress emotional expression.

**Perceived Control of Internal States Inventory (PCOISI)**

The PCOISI inventory (Pallant, 1998) was developed to measure individuals’ perception of their ability to control internal states and to moderate the effect of negative events on their emotions, thoughts and physical well-being. PCOISI is a 60-item scale in which subjects endorse items on a five point scale from 1 (strongly disagree) to 5 (strongly agree). The scale has nine subscales. Three deal with general beliefs about the degree to which internal states can be controlled or influenced. PCOISI assesses three dimensions. The first, general contingency beliefs, $(Toügen)$ measures the degree to which subjects believe that internal states can be controlled or influenced. It taps general beliefs concerning the availability and effectiveness of techniques to influence emotions, thoughts and physical reactions. It does not assess the individual’s ability to control his or her emotions, but rather the belief that it is possible for people in general to control their internal states. These beliefs develop during childhood and remain fairly stable across the life span, and are influenced by family and cultural beliefs. Subjects with low scores are likely to believe that there is nothing that anyone can do to control their internal states. They usually do not believe that there are effective techniques that people can use to influence their moods, thoughts or physical reactions to stressful situations.
High scorers believe that everyone is in control of how they feel and that people can keep their thoughts, emotions and physical reactions under control. Totgen is composed of three subscales: Emogen, focussing on beliefs about emotional states; Thgen, measures beliefs about thoughts; and Phgen, focussing on beliefs about physical reactions.

The second dimension is that of the perceived control that subjects feel they personally have over their internal states (Totctrl). This measures the amount of control that subjects have had over internal states in the past, and their feelings of how confident they are of their future ability to achieve such control. Low scores suggest difficulty in controlling thoughts, emotions and physical reactions when exposed to stressful situations. Such individuals find it hard to concentrate when under pressure, are less able to shift from a negative to a positive mood and further find it difficult to relax physically. Higher scorers believe that, even when under pressure, they are able to control their emotions, thoughts and physical reactions. Totctrl is composed of three subscales: Emoctrl, focussing on respondents’ perceived control over their own emotional states; Thctrl, focussing on respondents’ perceived control over their own thoughts; and Phctrl, focussing on respondents’ perceived control over their own physical reactions.

The third dimension measures how satisfied subjects feel with their current level of control of their internal states (Totsat), and thus assesses the value which people place on maintaining control. Some people may report high levels of control, but may not be satisfied with this degree of control, while others may report relatively low levels of control, but may be quite satisfied with this. Low scores suggest a general dissatisfaction with how an individual feels that he or she has handled their internal states, their emotions, thoughts and physical reactions. High scores indicate satisfaction. Totsat is composed of three subscales: Emosat, focussing on respondents’ satisfaction with their personal control over their own emotions; Thsat, focussing on respondents’ personal satisfaction with their control over their own thoughts; and Phsat, focussing on respondents’ personal satisfaction with their control over their own physical reactions.

This study set out to test the hypothesis that D and AdjD would be associated with both subjects’ beliefs that internal states could be controlled, and with their personal beliefs that they themselves were able to access those resources which would enable them to do so. Specifically, it was expected that subjects with $D = \text{minus}$, $\text{AdjD} = \text{minus}$, $C' > 2$, $m > 2$, $V > 2$, and $\text{SumC'} > W\text{SumC}$ would have scores on Totctrl, Totgen, Emoctrl, Emogen, Thctrl, and Thgen significantly lower than subjects for whom $D = 0$ or plus, $\text{AdjD} = 0$ or plus, $C' < 2$, $m < 2$, $V < 2$, and $\text{SumC'} < W\text{SumC}$. Emoctrl, Emogen, Thctrl, and Thgen.

### Method

#### Subjects

Subjects were 129 (61 males and 68 females) nonpatient adults from Victoria, Australia, who volunteered to undergo psychological assessment. The mean and standard deviation of the age of the sample was 35.43 years and 9.79 years, respectively, with no significant gender differences on age.

#### Procedure

Subjects were recruited by advertising for volunteers to participate in a personality study. Subjects attended two sessions. In the first, the Rorschach was administered and in the second, a battery of inventories was administered, including PCOISI (Pallant, 1998), Millon Inventory of Personality Styles (Millon, 1994), The Defense Style Questionnaire (1993), and The Early Memories Procedure (Bruhn, 1992). There were no inducements to participate.

The Rorschach records were scored following The Comprehensive System (Exner, 1997) and the variables relating to the Control and Stress Tolerance cluster were extracted. Each record was scored independently by two registered psychologists. The agreement between the two scorers for all the variables contributing to DScore was .92. All Rorschach variables were converted to categories. Generally, these were determined by considering three parameters from the normative nonpatient adult population (Exner, 1993), the mean, standard deviation and mode. Variables were categorized, where possible to form groups 1 SD below, 1 SD either side of the mean, and 1 SD above the mean. Subjects were grouped: for D, and separately for AdjD, into three groups, those who scored minus, zero, and plus. In nonpatient adults, for $\text{SumY}$, $M = 0.57$, $SD = 1.00$, Mode = 0.0, for $\text{SumV}$, $M = 0.26$, $SD = 0.58$, Mode = 0.0. Thus, $\text{SumV}$ and $\text{SumY}$ were split into two groups, first, those with scores of 0, and second, those with scores equal to or greater than 1. In nonpatient adults, for $T$, $M = 1.03$, $SD = 0.58$, and Mode = 1, thus $T = < 2$ responses globally characterizes the normal population and $T < 2$ responses characterizes a subgroup emphasizing $T$. $T$ was thus split into in to two groups, first, those with scores equal to or less than 2, and second, those equal to or greater than 3. In nonpatient adults, for $\text{SumC'}$, $M = 1.53$, $SD = 1.25$, and Mode = 1.00. Thus subjects for whom $\text{SumC'} = 0$, fall outside 1 SD of the population mean. Subjects for whom $\text{SumC'} = 1–2$, fall within normal limits and those for whom $\text{SumC'} > 2$ fall within a population which potentially show clinically significant characteristics, as $\text{SumC'} > 2$ is an indicator.
in the depression constellation (DEPI). Hence, \textit{sumC}' was divided into three groups, first, those with scores with scores equal to 0, second, 1–2, and third, those equal to or greater than 3. In nonpatient adults for \( m, M = 1.12, SD = 0.85, Mode = 1 \), thus subjects giving 2 or less responses fall within 1 SD of the population mean, whereas those giving 3 or more \( m \) responses fall outside this range. Therefore \( m \) was divided into two groups, first, those with scores less than or equal to 2, and second, those with scores equal to or greater than 3. In nonpatient adults, for \( FM, M = 3.70, SD = 1.19, \) and Mode = 4.00. Thus subjects giving none or 1 \( FM \) response fall well outside of 1 SD of the population mean as do those giving 5 or more responses. \( FM \) was divided into three groups, first, those with scores less than or equal to 1, second, those with scores 2–4, and third, those with scores greater than 5. In nonpatient adults, for \( es, M = 8.20, SD = 2.98, \) and Mode = 7.00. Thus for subjects for whom \( es = < 5 \) and for those for whom \( es = > 11 \) fall 1SD outside the population mean. The same rationale applied for \( Adj es \) and \( EA \). Hence, \( es, Adj es \) and \( EA \) were separately divided into three groups, first, those with scores less than 5, second those with scores 6–10, and third, those equal to or greater than 11. The two variables, \( M^p \) and \( M^p^2 \), were kept separate because the specific relationships of each of these two variables, rather than their interaction, to the control of internal states were particularly important to this study. Therefore, human movement active, \( M^p \) and \( M^p^2 \), and passive were both categorized into two groups, first, those with scores equal to or less than 2, and second, those with scores equal to or greater than 3. Finally, to compare subjects with normal levels of both tolerance and control of stress, and current experience of stress, (\( D = 0 \) and \( AdjD = 0 \)), with those with less capacity to control and tolerate stress and with some feeling of being stressed (\( D = minus \) and \( D < AdjD \)), and further, with those with effective control and stress tolerance but feeling some stress (\( D = plus \) and \( D < AdjD \)), groups were set up: Group 1, subjects with \( D = minus \) and \( D < AdjD \), Group 2, subjects with \( D = 0 \) and \( D = AdjD \), Group 3, subjects with \( D = plus \) and \( D < AdjD \).

\textit{PCOISI} is a 60-item scale in which subjects endorse items on a five point scale from 1 (strongly disagree) to 5 (strongly agree). The scale has nine subscales. Three deal with general beliefs about the degree to which internal states can be controlled or influenced. These three, each consisting of four items, were, first, \textit{Emogen}, focussing on beliefs about emotional states, second, \textit{Thgen}, beliefs about thoughts, third, \textit{Phgen}, beliefs about physical reactions. The possible range for each of these subscales was \textit{Minimum} = 0, \textit{Maximum} = 20. The means and standard deviations for these subscales in the present sample were, \textit{Emogen}, \( M = 15.51, SD = 3.18, Thgen, M = 15.34, SD = 3.17, Phgen, M = 14.88, SD = 1.86. \) Three further subscales concerned the amount of control that respondents felt they personally had over their internal states. These three, each consisting of 12 items each, were, first, \textit{Emoctrl}, focussing on respondents’ perceived control over their own emotional states, second, \textit{Thctrl}, focussing on respondents’ perceived control over their own thoughts, and third, \textit{Phctrl}, focussing on respondent’s perceived control over their own physical reactions. The possible range for each of these subscales was \textit{Minimum} = 0, \textit{Maximum} = 60. The means and standard deviations for these three scales for the present sample were, \textit{Emoctrl}, \( M = 38.87, SD = 7.63, Thctrl, M = 41.27, SD = 7.26, Phctrl, M = 40.35, SD = 6.73. \) The last three subscales concerned how satisfied respondents were with their current level of control over their internal states. They each consisted of four items, first, \textit{Emosat}, focussing on respondents’ satisfaction with their personal control over their own emotions, second, \textit{Thsat}, focussing on respondents’ personal satisfaction with their control over their own thoughts, and \textit{Phsat}, focussing on respondents’ personal satisfaction with their control over their own physical reactions. The possible range for each of these subscales was \textit{Minimum} = 0, \textit{Maximum} = 20. The means and standard deviations for these subscales in the present sample were, \textit{Emosat}, \( M = 13.43, SD = 3.67, Thsat, M = 13.42, SD = 3.42, Phsat, M = 13.21, SD = 3.45. \) The three subscales dealing with general beliefs were summed to form \textit{Totgen}. The three subscales dealing with perceived control over respondents’ actual emotional states were summed to form \textit{Totctrl}. The three subscales dealing with respondents’ satisfaction over their internal states were summed to form \textit{Totsat}. The scale has shown good reliability, with \textit{Cronbach’s alpha} co-efficients ranging from .86 to .92. The stability of the scale over time was assessed in three studies, with test-retest correlations over 1 to 3 weeks, ranging from .81 to .91 (Pallant, unpublished). The scale has been validated with predicted correlations being shown with a number of other scales related to stress (Pallant, unpublished).

Descriptive statistics with regard to the two potentially confounding variables, \textit{Lambda} and \textit{EB} were: 88.4% of subjects obtained \textit{Lambda} values < .99, and for those subjects the \textit{R} values were \( M = 21.87 (SD = 6.58) \), with a range from 14–46 responses; 11.6% of subjects obtained \textit{Lambda} values > .99, and for those subjects the \textit{R} values were \( M = 21.93 (SD = 6.92) \), with a range from 14–34 responses. Intrusive subjects made up 34.1% of the sample, and for those subjects the \textit{R} values were \( M = 21.32 (SD = 6.98) \), with a range from 14–44 responses. Extratensive subjects made up 41.1% of the sample, and for those subjects the \textit{R} values were \( M = 21.83 (SD = 6.43) \), with a range from 14–46 responses. Ambintent subjects made up 24.8% of the sample, and for those
results, the $R$ values were $M = 22.72$ ($SD = 6.44$), with a range from 14–38 responses.

**Results**

Separate analyses of variance were carried out in which each variable in the Rorschach Control and Stress Tolerance cluster was the independent variable and each of the three PCOISI scales and the nine subscales was the dependent variable. The means, standard deviations, and the results of post-analysis Scheffe tests, appear in Table 1 and the significant analysis of variance results in Table 2. The Rorschach variables, which showed no significant relationship with PCOISI, were: $M$, $M'$, $T$, $SumV$, $FM$, $es$, $AdjD$, and $Adj es$.

Of the 14 significant findings listed, 12 concerned the general beliefs which individuals hold that internal states can be controlled or influenced, only one concerned subjects’ perceived control over their own internal states, and how one satisfied subjects were about their actual control over their emotional states. The Rorschach variables associated with general beliefs about the possibility of controlling internal states were, $D$, $EA$, $M'$, $m$, $SumC'$, $WSumC$, and $SumC'/SumC$, the Constriction Ratio ($CR$).

Subjects with $D = 0$ scored significantly higher for Totgen, Phgen and Thgen than those with either $D = minus$ or $D = plus$. This finding indicated that subjects with $D = 0$ believed more strongly than subjects with $D = minus$ or $D = plus$, that internal states could be controlled, especially thoughts and physical actions (cf. Table 1 for means and standard deviations). Of the variables which make up the components of $D$, only EA, $WSumC$, $SumC'$, and $m$ had significant relationships with either Totgen, Phgen, or Thgen. Subjects with $EA > 12$ scored lower on Thgen than those with $EA < 5$ and $EA = 6–11$, but for Totgen and Phgen, subjects with $EA > 12$ scored lower only than those with $EA = 6–12$. In connection with this finding, $SumM$, one component of $EA$, had no significant relationship to either Totgen or Thgen. However, when $M$ was split into active and passive, subjects with $M' > 3$ had lower scores on Thgen, indicating that they were less likely to believe that there were strategies to control disturbing thoughts than subjects with $M' < 2$. Subjects with values for $WSumC = 0–1.5$, the other component of $EA$, had higher scores on Thgen, than either those with values for $WSumC = 1.6–4.5$ and than those with $WSumC > 5$, indicating that they were more likely to hold the belief that thoughts could be controlled. Subjects with values for $SumC' = 0$ scored significantly higher for Thgen, than those with values for $SumC' > 3$, but not those with values for $SumC' = 1–2$. With regard to $m$, subjects with $m < 2$ had significantly higher scores on Thgen than subjects with $m > 3$. A further related finding concerned $SumC'/SumC'$, the Constriction Ratio. Subjects with the lowest scores on this ratio had significantly higher scores on Thgen than those with the highest scores. Subjects with values for $SumC' = 0$ scored significantly higher on Emosat than those with values for $SumC' > 3$, but not those with values for $SumC' = 1–2$. Subjects with $SumV = 0$ scored significantly higher on Emogen than those for whom $SumV > 1$.

Finally, subjects with $D = 0$ and $D = AdjD$ had significantly higher scores on Phgen, Thgen and Totgen than subjects with $D = minus$ and $D < AdjD$ and subjects with $D = plus$ and $D < AdjD$.

**Discussion**

Subjects with $D = 0$ had significantly higher scores than subjects with $D = minus$, and $D = plus$ on the three scales, Totgen, Thgen, and Phgen. Totgen measures whether subjects hold the general belief that people can modify and control their internal states. High scorers believe that everybody is basically in charge of how they feel and that there are techniques which people can use to keep their emotions, thoughts and physical reactions under control. Thgen, a subscale of Totgen designed to focus solely on thoughts, measures the belief that people can distract themselves from negative thoughts, can stop worrying, or can keep thoughts under control. Phgen, likewise a subscale of Totgen, designed to focus solely on physical reactions, measures the belief that people can stop stress from affecting their health, and can learn to control such physiological phenomena as heart rate and blood pressure. The findings of this study indicate that such beliefs may be part of the $D = 0$ subjects’ ability to maintain a freedom from overt anxiety, to be emotionally stable and to be as capable as most of controlling their behaviour.

It is significant that subjects with $D = plus$, even in an normal sample, did not hold these beliefs as strongly, even though they have good capacities for stress tolerance and stability (Weiner, 1998). Exner (1993) made the point that individuals then with $D = plus$ are not necessarily well adjusted even though they do have resources to tolerate and control stress. Perhaps, if such individuals hold beliefs about the possibility of controlling their internal states, they are likely to be better adjusted than individuals with $D = plus$ who do not hold these beliefs.

It is notable that none of these findings involved AdjD alone, the more trait-like measure of an individual’s capacity to tolerate stress. However, when subjects for whom $D = 0$ and $D = AdjD$ were compared with subjects for whom $D = minus$ and $D < AdjD$ and with those for
whom $D = \text{plus}$ and $D < \text{AdjD}$, they were found to have higher scores on the \textit{Phgen}, \textit{Thgen} and \textit{Totgen} scales. In other words, subjects, who were relatively free of overt anxiety and of situational stress ($D = 0$ and $\text{AdjD} = 0$), were more likely to believe that strategies to manage unpleasant, internal states do exist, than subjects who felt stressed and not coping ($D = \text{minus}$ and $D < \text{AdjD}$), and than those with abundant resources to cope with stress but who felt some situational pressure ($D = \text{plus}$ and $D < \text{AdjD}$). These results suggest that when individuals feel

\begin{table}[h]
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\begin{tabular}{|l|l|l|l|l|l|}
\hline
\textbf{PCOISI} & \textbf{Rorschach Variable} & \textbf{M} & \textbf{SD} & \textbf{N} & \textbf{Scheffé Tests} \\
\hline
\textit{Totgen} & $D = \text{minus}$ & 46.97 & 6.32 & 64 & $D = 0$ from \\
& $D = 0$ & 50.48 & 5.76 & 42 & $D = \text{minus}$ and \\
& $D = \text{plus}$ & 44.05 & 6.02 & 19 & $D = \text{plus}$ \\
& $EA < 5$ & 47.19 & 7.05 & 36 & $EA > 12$ from \\
& $EA = 6-11$ & 49.44 & 6.12 & 64 & $EA = 6-11$ and \\
& $EA > 12$ & 44.00 & 4.56 & 25 & $EA < 5$ \\
\hline
\textit{Totgen} & $D = \text{minus}$ & 47.14 & 6.39 & 64 & $D = 0$ & $\text{AdjD}$ \\
& $D = \text{plus}$ & 44.05 & 6.02 & 19 & $D = \text{plus}$ \\
& $\text{AdjD} = 0$ & 50.48 & 5.76 & 42 & $\text{AdjD} = 0$ \\
& $D = \text{minus}$ & 44.05 & 6.02 & 19 & $D = \text{plus}$ and \\
& $D = \text{plus}$ & 47.19 & 7.05 & 36 & $D = \text{minus}$ from \\
& $\text{AdjD} = 0$ & 44.05 & 6.02 & 19 & $\text{AdjD} = 0$ \\
\hline
\textit{Emogen} & $M < 2$ & 15.98 & 3.04 & 79 & \\
& $m > 3$ & 14.72 & 3.29 & 46 & \\
\hline
\textit{Thgen} & $D = \text{minus}$ & 15.33 & 2.46 & 64 & $D = 0$ from \\
& $D = 0$ & 16.67 & 2.29 & 42 & $D = \text{minus}$ and \\
& $D = \text{plus}$ & 14.61 & 2.25 & 19 & $D = \text{plus}$ \\
& $EA < 5$ & 15.91 & 2.34 & 36 & $EA > 12$ from \\
& $EA = 6-11$ & 16.14 & 2.35 & 64 & $EA = 6-11$ and \\
& $EA > 12$ & 14.16 & 2.43 & 25 & $EA < 5$ \\
\hline
\textit{Thgen} & $D = \text{minus}$ & 15.50 & 2.60 & 64 & $D = 0$ & $\text{AdjD}$ \\
& $D = 0$ & 16.91 & 2.12 & 32 & $D = \text{plus}$ and \\
& $D = \text{plus}$ & 14.17 & 1.33 & 6 & $D = \text{plus}$ and \\
& $\text{AdjD} = 0$ & 16.91 & 2.12 & 32 & $\text{AdjD} = 0$ \\
& $D = \text{minus}$ & 16.91 & 2.12 & 32 & $D = \text{plus}$ from \\
& $D = \text{plus}$ & 14.17 & 1.33 & 6 & $D = \text{plus}$ \\
& $\text{AdjD} = 0$ & 16.91 & 2.12 & 32 & $\text{AdjD} = 0$ \\
\hline
\textit{Thgen} & $WSumC < 1.9$ & 17.09 & 1.83 & 23 & $WSumC < 1.9$ from \\
& $WSumC = 2-4.5$ & 15.44 & 2.58 & 64 & $WSumC = 2-4.5$ \\
& $WSumC > 5.0$ & 15.22 & 2.37 & 37 & $WSumC > 5.0$ \\
\hline
\textit{Thgen} & $SumC' = 0$ & 16.95 & 1.96 & 21 & $SumC' = 0$ \\
& $SumC' = 1-2$ & 16.00 & 2.42 & 49 & from \\
& $SumC' > 3$ & 14.91 & 2.46 & 55 & $SumC' > 3$ \\
\hline
\textit{Thgen} & $CR < 3.9$ & 16.68 & 1.86 & 22 & $CR < 3.9$ \\
& $CR = 4-11$ & 15.77 & 2.33 & 81 & from \\
& $CR > 11.1$ & 14.10 & 2.83 & 21 & $CR > 11.1$ \\
\hline
\textit{Thgen} & $M < 2$ & 16.09 & 2.24 & 79 & \\
& $m > 3$ & 14.98 & 2.70 & 46 & \\
\hline
\textit{Thgen} & $M^p = 0$ & 15.10 & 2.36 & 20 & $M^p = 1-2$ \\
& $M^p = 1-2$ & 16.36 & 2.27 & 61 & from \\
& $M^p > 3$ & 14.97 & 2.59 & 43 & $M^p > 3$ \\
\hline
\textit{Phgen} & $D = \text{minus}$ & 16.34 & 2.12 & 64 & $D = 0$ from \\
& $D = 0$ & 17.74 & 1.61 & 42 & $D = \text{minus}$ and \\
& $D = \text{plus}$ & 15.21 & 2.15 & 19 & $D = \text{plus}$ \\
& $EA < 5$ & 16.56 & 2.08 & 28 & $EA > 12$ from \\
& $EA = 6-11$ & 17.17 & 2.07 & 64 & $EA = 6-11$ \\
& $EA > 12$ & 15.40 & 1.89 & 25 & \\
\hline
\textit{Phgen} & $D = \text{minus}$ & 16.34 & 2.12 & 64 & $D = 0$ & $\text{AdjD}$ \\
& $D = 0$ & 17.74 & 1.61 & 42 & $D = \text{minus}$ and \\
& $D = \text{plus}$ & 15.33 & 1.67 & 6 & $D = \text{plus}$ and \\
& $\text{AdjD} = 0$ & 16.34 & 2.12 & 64 & $\text{AdjD} = 0$ \\
& $D = \text{minus}$ & 17.74 & 1.61 & 42 & $D = \text{plus}$ from \\
& $D = \text{plus}$ & 15.33 & 1.67 & 6 & $D = \text{plus}$ \\
& $\text{AdjD} = 0$ & 16.34 & 2.12 & 64 & $\text{AdjD} = 0$ \\
\hline
\textit{Emosat} & $SumC' = 0$ & 15.48 & 3.57 & 21 & $SumC' = 0$ \\
& $SumC' = 1-2$ & 13.20 & 3.56 & 49 & from \\
& $SumC' > 3$ & 12.66 & 3.61 & 55 & $SumC' > 3$ \\
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\end{tabular}
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significantly stressed, as measured by $D = \text{minus}$, they tend to lose contact with beliefs about how they might maintain control of stressful situations. Not much can be said of the group of subjects with $D = \text{plus}$ and $D < \text{AdjD}$, since the number of subjects in that group was low ($N = 6$). It is surprising that $D$ was not associated with significant effects to do with the $Emogen$ and/or $Emoctrl$ scales. One might interpret this lack of a finding to mean that the belief in the power of thought to control internal states was greater than the belief that emotional states could be controlled for this group of subjects. These findings do not unequivocally demonstrate that some kind of cognitive strategy involving belief in the possibility of controlling internal states was greater than the belief that emotional states could be controlled already than that they hold positive beliefs about the control of their internal states.

The findings for $SumC'/WSumC$, the Constriction Ratio, fit with the findings for $D$. Subjects with $SumC' = 0$ had significantly higher scores on $Thgen$ and $Emosat$ than those with $SumC' > 3$, but not than those with $SumC' = 1–2$. If $SumC'$ indicates conscious, affective constraint, creating internal feelings of irritation, then the present finding for $SumC'$ suggests that, when $SumC' > 3$, individuals are less likely to believe that internal states can be controlled. This finding suggests that, as the frequency of $C'$ increases beyond 2, individuals feel less confident in their belief that they can control internally disturbing affect. As $C'$ increases in frequency the feeling that one needs to control negative affect may be tinged with the belief that one will not be able to do so. The condition $C' > 2$ occurs in the Depression Index. Negative thinking is common among depressed individuals.

The present finding with regard to $C'$ may indicate that $C' > 2$ individuals feel some element of hopelessness about controlling their internal disturbing states even as they try to do so. This interpretation is perhaps strengthened by the further finding that, when $SumC' = 0$, subjects were more satisfied with their control over internal states than when $SumC' > 3$. The irritating effect of unpleasant affect may thus include the feeling that one is not fully successful in controlling such affect.

Similarly, subjects with $WSumC < 1.5$ scored significantly higher on $Thgen$ than those with either $WSumC = 2–4.5$ and those with $WSumC > 5.0$. According to Weiner (1998), a $WSumC$ score at or below 2.5 indicates a maladaptive, insufficient capacity to experience and express feeling. The present finding suggests, however, that it may also sometimes indicate a strong belief in control of feeling. The Constriction Ratio relates to the $SumC'$ and $WSumC$ findings. Subjects with the highest $CR$ values had significantly lower scores for $Thgen$ than those with the lowest values. The higher the value of $CR$ the more $SumC'$ outweights $WSumC$. Thus, subjects with a high $CR$ value are likely to struggle with constricted emotions, of which they are often conscious. One might expect such subjects to have stronger beliefs that internal states can be controlled than subjects for whom the values of $WSumC$ are higher. If subjects with $WSumC < 1.5$ really hold beliefs that internal states can be controlled, then they can articulate these beliefs as indicated by their higher scores on $Thgen$ than $WSumC = 2–4.5$ subjects and $WSumC > 5.0$ subjects. Thus although they may have an insufficient capacity to express feelings, they also believe that feelings can and perhaps should be controlled. Perhaps, an individual with $SumC' = 0$ and $WSumC < 2.5$, is afraid of and/or inhibits feelings, espe-

<table>
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<tr>
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cially unpleasant feelings, and believes that both should be controlled.

With regard to $m$, subjects with $m < 2$ had significantly higher scores on $Thgen$ and $Phgen$ than those with $m > 3$. The present sample was relatively stressed in that 50.5% had $D =$ minus, whereas 35% had $AdjD =$ minus. Thus, at least half of the sample probably felt situationally constrained. Those with least constraint reported that they believed that both thoughts and physical reactions could be controlled. A value of $m > 2$ probably goes with a decreased belief in the possibility of controlling internal states. Since $m$ is associated with situational stress, belief in the possibility of control may wax and wane with external circumstances. The PCOISI scales were designed to be sensitive to situationally induced stresses. Moreover, how one perceives a situation may well determine one’s perception whether it is stressful or not. The findings in this study suggest that this subjective assessment needs to be taken into account when interpreting $m$.

In summary, the present study found some support for the hypothesis that stress as measured by the Rorschach variables $D$ and $AdjD$ is associated with subjects’ beliefs: First, that internal states could be controlled; second, that they themselves were able to access those resources which would enable them to do so; and third, that they felt satisfied that they were in fact able to control their own internal states. Lower stress, as represented by $D = 0$ was associated with the general belief that negative, internal states, particularly thoughts, can be controlled. This finding adds a little to the interpretation of $D$ and has possible implications for stress management through cognitive-training techniques.

This study had several limitations. The sample was drawn from the normal population, so that any stresses which subjects encountered were likely to be only those of everyday life. Moreover, their anxieties were not defined. Some, for example those associated with specific forms of depression, affect individuals’ cognitive habits and beliefs, whereas others may not do so to the same degree. Also, within ordinary life stresses are highly varied, some being more controllable than others. The sample had a greater proportion of $D =$ minus subjects than one would expect from normal population sample, which would suggest that its subjects were relatively stressed, although none had a history of psychiatric disturbance. Without differentiating between types of stress experienced by $D =$ minus subjects, not much can be said about which influence a person’s belief in the control of internal states. Further, the present findings from the normal population cannot be generalized to clinical samples. If one were to repeat this study in a specifically defined clinical sample, taking account of cognitive variables, such as accuracy of perception, may be important. Lastly, the sample ranged from 20 to 65 years. How individuals cope and which stressors they commonly face at different ages should be taken into account. The study was then global in its aim, setting out to demonstrate that individuals beliefs about whether internal states, particularly cognitive states, can be controlled, should be taken into account when interpreting the variables which make up $D$.

References


