

Social Processing Errors Among Paranoid Personalities

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The present study tested clinical hypotheses about the social processing attributes of paranoid personalities (PP). Eighteen PPs and 18 normal controls (NC) viewed standardized role plays (Dodge, 1986) in which a provocation occurred but the protagonist's intention varied (i.e., ambiguous, accidental, hostile, or prosocial). Subjects identified the intention behind the action and then chose a response to that action (e.g., "ignore what he did"). The results indicated that PPs and NCs did not differ on intention-cue detection when the intention was clear, but PPs had a significantly higher rate of misreading ambiguous situations. Furthermore, when intentions were ambiguous, PPs were more likely than NCs to identify them as hostile intentions. Finally, PPs' reactions to the vignettes were different from normal controls' when the perceived intention was either prosocial or accidental. PPs were more likely to respond with anger and less likely to ignore the event, compared to NCs. These data provide initial support for clinical notions about the aberrant social processing of paranoid personalities.

KEY WORDS: paranoia; hostility; personality disorders.

INTRODUCTION

The scientific community has devoted considerable attention to paranoid psychosis but the paranoid personality disorder (PPD) has been relatively neglected (Turkat, 1985). Several explanations for this dilemma have been proposed. These include the following: (a) the PPD infrequently seeks treatment and rarely is hospitalized (American Psychiatric Association, 1980);

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(b) problems in classification and label use plague the paranoid pathology literature in general (Munro, 1982; Walker & Brodie, 1985); (c) clinically the PPD may present with symptoms that initially appear unrelated to DSM-III-(R) criteria, which leads to misdiagnosis; (d) such cases actively resist being subjects in psychological research (Turkat & Banks, 1987); and (e) mental health professionals may be relatively unwilling to assist in locating potential PPD subjects (Thompson-Pope & Turkat, 1989).

Despite the lack of research on PPD, clinical discussions of the disorder are plentiful (e.g., Cameron & Rychlack, 1985; Millon, 1981). These reports all point to a unique interpersonal style in individuals with PPD. Central to this style is the aberrant social processing seen in PPD cases. In this context, social processing is defined as the act of reading the intention of others' behavior and formulating a response.

Clinicians hypothesize that the PPD has social processing problems in both reading others' social behavior and in formulating appropriate responses (cf. Turkat, 1985). In particular, PPD cases are viewed as having difficulty in reading ambiguous situations and are more likely to react to others in a hostile manner (Millon, 1981; Turkat, 1985). The present study was concerned with testing these hypotheses.

Given the interest and difficulty in studying PPD, we devised a method to study individuals in the college population who scored highly on measures representative of the DSM-III criteria (Turkat & Banks, 1987). This battery yielded a group of individuals who (a) reported having more paranoid thoughts and experiences than controls, (b) scored similarly to a sample of clinically diagnosed PPD cases on paranoid thoughts and experiences, and (c) demonstrated the expected resistance to participate as subjects in research. Finally, such individuals reported unique responses when given ambiguous stimuli to identify, and were significantly more suspicious of being tricked by the experimenters (Thompson-Pope & Turkat, 1988). The results of these studies, taken together, demonstrate what appears to be a useful college student analog of PPD. For classification purposes, we label these individuals as paranoid personalities (PP), as opposed to PPD, given they have not sought clinical attention.

In the present investigation, we hypothesized that (1) paranoid personalities would demonstrate more social processing errors than controls when the portrayed intention of a provocation is ambiguous and (2) paranoid personalities would react to the provocation with more hostility than controls.

METHOD

Subjects

Undergraduates ($N = 424$) enrolled in an Introductory Psychology course completed the Paranoid Ideation Subscale (PI) of the Symptom

Checklist-90 Revised (SCL 90R; Derogatis, 1978), the Fear of Negative Evaluation (FNE) Scale (Watson & Friend, 1969), and the Superego (SE) Scale (Lazare, Klerman, & Armor, 1970), reflecting the DSM-III-specified PPD traits of suspiciousness, hypersensitivity to interpersonal threat, and restricted affect, respectively. Eighteen subjects (*Ss*) scoring a minimum of 1.5 standard deviations above the mean on a weighted combined score ($1.25 \text{ PI} + 4.29 \text{ SE} + 1.0 \text{ FNE}$) comprised the PP group (4 male and 14 female Caucasians), whereas 18 individuals (2 Caucasian males, 14 Caucasian females, and 2 black females) who scored within 0.5 standard deviation of the mean on the screening battery were assigned to the normal control (NC) group. The weighted combined score is necessary because the three questionnaires have a different number of items (Turkat & Banks, 1987). The proportion of females to males in the two groups merely reflects the relatively high number of females who enroll in Introductory Psychology at the University of North Carolina at Greensboro.

Materials and Procedure

The vignettes viewed by *Ss* were developed and provided by Dodge (1986). The 16 vignettes (30 sec each) consist of short scenes enacted by college-age individuals (e.g., setting up a date, using a calculator). In each vignette a given individual is antagonistic in some way to another individual, with one of four intentions displayed: (1) hostile, (2) accidental, (3) prosocial, or (4) ambiguous. Following each scene, *Ss* were presented with two questions, each of which had four forced-choice alternative answers. Question 1 was Why did he react the way he did? The four responses were (a) to be mean, (b) it was an accident, (c) to be helpful, and (d) it is unclear why he did it. Question 2 read How would you respond to the actions of the character? The four alternatives were (a) be angry and somehow get back at him, (b) be angry but not do anything to him, (c) ignore what he did, and (d) thank him.

Upon arrival at the testing site *Ss* were escorted to a lab room and seated at a table, facing a 30-in. color TV monitor located approximately 5 ft in front of the *Ss*. Following a description of the study and signing of the consent form, *Ss* were read instructions for the social processing task. For each scene, *Ss* were instructed to pay attention to the actions of a particular character.

RESULTS

To compare the PP and NC groups on intention-cue detection and on reactions to scenes, multiple one-way ANOVAs were performed. Due to the

Table I. Mean Percentage of Correctly Identified Intentions for the Four Vignette Types

	Vignette type			
	Hostile	Accidental	Prosocial	Ambiguous
Normal controls	90.3	62.5	75.0	79.2
Paranoid personalities	94.4	54.2	76.6	48.6

fact that observations were nonindependent, interactions of group by scene were not examined.

Intention Detection

Subject responses to Question 1 for the four types of vignettes were coded as either correct or incorrect. PPs made significantly more errors in identifying ambiguous intentions than NCs ($p < .001$). As can be seen in Table I, PPs were more often incorrect in identifying an intention as ambiguous or unclear. However, no significant differences were found ($p > .05$) when comparing PPs and NCs on the percentage of incorrect responses for the accidental, prosocial, and hostile scenes. Further, when the protagonist's intentions were ambiguous (according to Dodge, 1986), PPs were more likely than NCs to identify hostile intentions ($p < .025$) and less likely to state that the intention was unclear or ambiguous ($p < .05$). The perceived intentions of ambiguous scenes are given in Table II.

Reaction to Scene

Subjects' answers to Question 2 were converted from responses (a), (b), (c), and (d) to numerical values, 1, 2, 3, and 4, respectively, so that the results could be treated as ordinal data. Thus, if an *S* had responded (a) ("be angry and somehow get back at him"), he/she would receive a score of 4 for this response. Likewise, if he/she responded (d) ("thank him"), he/she would score 1. PPs' and NCs' reactions to the vignettes were compared based on the *S*'s *perception* of the protagonist's intention, not on the intention speci-

Table II. Mean Percentage of Ambiguous Vignettes Perceived as Hostile, Accidental, Prosocial, and Ambiguous

	Perceived intentions			
	Hostile	Accidental	Prosocial	Ambiguous
Normal controls	5.5	8.3	9.7	76.4
Paranoid personalities	23.6	16.7	11.1	48.6

fied by Dodge (1986). This analysis appeared to make sense conceptually, given that the *S*'s response is presumably based on his/her own perception of the stimulus. The results of these analyses demonstrated that paranoid personalities' reactions to the vignettes were significantly different from normal controls' when the perceived intention was (i) prosocial ($p < .001$) and (ii) accidental ($p < .05$). In both cases PPs are more likely to say that they would respond "be angry but do nothing" (b) and less likely to "ignore what he did" (c), compared to NCs. There were no significant differences ($p > .05$) in PP and NC use of the "be angry and somehow get back at him" (a) and "thank him" (d) responses.

Since an angry response would be considered a more hostile response than ignoring, the hypothesis that PPs would react with more hostility than NCs is confirmed when *S*s perceive prosocial and accidental intentions. These data are displayed in Fig. 1.

DISCUSSION

The purpose of the present study was to examine the hypothesis that paranoid personalities (1) commit more social processing errors when inten-

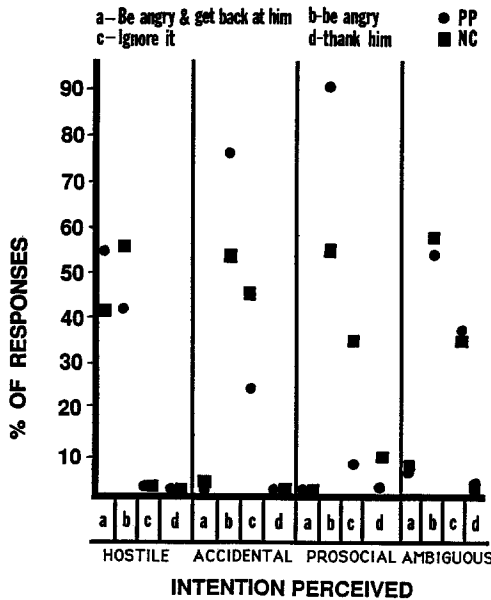


Fig. 1. Mean percentage of responses given to the four perceived intents: hostile, accidental, prosocial, and ambiguous.

tions are ambiguous and (2) react with more hostility, compared to controls. The results of the present investigation support the first of these hypotheses and help to clarify the PPs' difficulty in attempting to read others' social behavior. According to clinical lore, paranoid personalities misinterpret others' nonhostile behavior as being hostile (American Psychiatric Association, 1987). However, the present study suggests that PPs commit social processing errors more often than normals only when they are presented with ambiguous social behavior. When the vignette character's intentions was clear (i.e., prosocial, accidental, or hostile), the PPs were as accurate as the NC group in detecting the intended cues. However, when faced with ambiguity they were more likely than normal controls to attribute hostility to the protagonist's behavior. Thus, the study provides a more refined statement about the intention-cue detection problems of the paranoid: such cases do not have a general deficit in reading others' intentions; they incorrectly read unclear intentions and easily attribute malevolent intent. This finding also clarifies previous research demonstrating unique responses by PP to ambiguous stimuli (Thompson-Pope & Turkat, 1988).

The findings that PPs' problems in reading others' intentions seem specific to ambiguous situations has important treatment implications. In attempting to teach the PP to read others' behavior more effectively (cf. Turkat & Maisto, 1985), the present study suggests that a focus on correctly identifying ambiguous intentions as unclear, and not as hostile, should prove beneficial.

In addition to making errors in social processing, PPDs are clinically observed to be easily provoked to anger (Cameron & Rychlak, 1985; Millon, 1981; American Psychiatric Association, 1987). The hypothesis that PPs would react with hostility to the vignettes more often than the controls was partially supported by the data from the present study. Analysis of the groups' reactions to the vignettes revealed that the PPs did not react to all four types of intentions with increased hostility, as expected. Instead, when PPs perceived ambiguity or hostility, their reactions were not significantly different from NCs'. However, when helpfulness or an accidental intention was identified, they reported significantly more anger compared to controls. These data emphasize that the PPs' social skill problems are not restricted to incorrectly reading ambiguity. Differentially responding with anger to a prosocial or accidental intent suggests hypersensitivity and difficulty with emotional control that could provide an important focus for treatment of the paranoid personality case.

Interestingly, although paranoid personality-disordered individuals are often described as "ready to counterattack" when threat is perceived, this study did not demonstrate that PPs were significantly more vengeful than NCs when perceived intention was hostile.

The observation of social processing errors seen among PPs in the present study must also be considered in the light of the absence of a "psychopathology control" group. That is, the present study was not designed to rule out the possibility that unique responses observed here in PPs may be seen in any atypical group of individuals. Further research is needed to clarify this issue. Nevertheless, the present study provides some initial support for some of the clinical notions about the social processing errors and social skill problems among paranoid personalities.

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