

GENDER ROLE AND PERSONALITY DISORDERS

E. David Klonsky, MA, J. Serrita Jane, PhD,
Eric Turkheimer, PhD, and Thomas F. Oltmanns, PhD

Many researchers have hypothesized relationships between personality disorders and gender role (i.e., masculinity and femininity). However, research has not addressed if people who are masculine or feminine more often meet the criteria for personality disorders. The present study examined whether college students ($N = 665$, 60% women) higher in masculinity or femininity more often exhibited features of the 10 DSM-IV personality disorders. Feminine men exhibited more features of all the personality disorders except antisocial. Dependent traits were associated with higher femininity and lower masculinity. Antisocial traits were associated with masculinity. Both men and women who typically behaved consistent with their gender had more narcissistic and histrionic features, whereas participants who typically behaved unlike their gender had more features of the Cluster A personality disorders.

The issue of gender differences in the diagnosis of personality disorders has received much attention in the psychological and psychiatric literature. The *Diagnostic and Statistical Manual for Mental Disorders* (American Psychiatric Association [APA], 1994) notes that (a) borderline personality disorder occurs more often in females; (b) histrionic and dependent personality disorders may occur more often in females; (c) schizoid, schizotypal, paranoid, antisocial, narcissistic, and obsessive-compulsive personality disorders are more often diagnosed in men. Corbitt and Widiger (1995) reviewed the empirical support for these conclusions. Across 15 studies, men were diagnosed more often with the schizoid and antisocial personality disorders and women were diagnosed more often with the borderline, histrionic, and dependent personality disorders. There were also smaller trends for men to receive more frequently diagnoses of the paranoid, schizotypal, and narcissistic personality disorders and for women to receive diagnoses of avoidant personality disorder.

These gender differences have led some researchers to hypothesize relationships between personality disorders and gender roles. In a seminal arti-

From the Department of Psychology, University of Virginia. J. S. J. is now at the Department of Psychiatry, Yale University.

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Address correspondence to David Klonsky or Thomas F. Oltmanns, Department of Psychology, University of Virginia, 102 Gilmer Hall, P. O. Box 400400, Charlottesville, VA 22904-4400; E-mail: klonsky@virginia.edu or tfo@virginia.edu

cle, Kaplan (1983) argued that the DSM dependent and histrionic personality disorders represent exaggerations of traditional feminine behaviors. She asserted that behaving in a stereotypic feminine manner alone can earn a diagnosis. Indeed, evidence exists that clinicians are biased to diagnose women more often than men with histrionic personality disorder (Ford & Widiger, 1989; Hamilton, Rothbart, & Dawes, 1996). Kaplan's perspective has received much attention because the presence of diagnostic constructs that are gender-biased could undermine the scientific and clinical validity of the DSM classification of personality disorders (Widiger & Spitzer, 1991).

Widiger and Corbitt (1995) provide a less controversial explanation for gender differences in the diagnosis of personality disorders. They suggest that established gender differences in the prevalence of normal personality traits could explain the gender differences found in the prevalence of personality disorders. For example, they note that histrionic personality disorder is associated with extreme extraversion and features involving neuroticism and point to research indicating that women score higher than men on both of these trait dimensions. Likewise, excessive agreeableness is a primary feature of dependent personality disorder and more women than men have extreme scores on agreeableness. Similar reasoning can be used to account for personality disorders more often diagnosed in men. Antisocial personality disorder includes low agreeableness (i.e., deceit, lack of compliance, tough-mindedness), and men tend to score lower on this trait than women.

Unfortunately, there is little empirical research addressing the relationship between personality disorders and gender roles. What research there is tends to focus on whether DSM personality disorders include traits associated with gender roles (i.e., femininity or masculinity). For example, Slavney (1984) asked 49 psychiatrists to rate the concepts woman, man, histrionic personality, and antisocial personality on each of 15 bipolar adjectival scales. Participants' responses indicated a greater resemblance between the connotative meanings of histrionic and woman than antisocial and man.

Sprock, Blashfield, and Smith (1990) had 50 college students rank the DSM-III-R personality disorder criteria along a male-female dimension. Participants ranked criteria from the dependent and histrionic personality disorders as most feminine and criteria from the antisocial and sadistic personality disorders as most masculine. Landrine (1989) and Rienzi, Forquera, and Hitchcock (1995) have reported similar findings. Across these studies, the DSM histrionic and dependent personality disorders were seen as including typical feminine traits and antisocial personality disorder was judged to include typical masculine traits.

This literature on personality disorder and gender role focuses on DSM criteria and whether clinicians' or nonclinicians' rate the criteria as representing typical feminine or masculine features. Research has not examined the association between gender role and personality disorders as manifested in people, rather than in trait terms. The present study examines whether college students higher in masculinity or femininity are more likely to exhibit symptoms of the 10 DSM-IV personality disorders. Both gender

TABLE 1. Self-Reported Axis II Psychopathology in Our Sample of College Students

Personality Disorder	Men (N = 268)		Women (N = 397)	
	Clinical ^a	Subclinical ^b	Clinical ^a	Subclinical ^b
Paranoid	4.6	7.6	1.8	4.1
Schizotypal	4.2	5.0	2.5	5.0
Schizoid	7.6	16.3	3.5	10.1
Antisocial	8.3	17.4	1.8	5.1
Narcissistic	9.5	15.2	6.1	11.2
Borderline	1.1	3.7	0.8	1.8
Histrionic	1.1	4.9	1.3	2.1
Avoidant	7.6	12.5	5.8	12.4
Dependent	1.1	2.2	2.0	4.0
OCPD	8.7	18.2	9.8	18.1
At Least One PD	26.9	—	20.0	—

Note. The personality disorder diagnoses presented here are based on participants' self-report[comma here] and therefore were probably assigned more liberally than if participants were diagnosed by structured clinical interview. ^aClinical refers to the percentage of participants meeting full criteria for a diagnosis. ^bSubclinical includes those participants who fall exactly one criterion short of full criteria for a diagnosis.

role and personality disorders are assessed using participants' descriptions of themselves, in addition to peer reports describing the participants.

METHOD

PARTICIPANTS

Data were collected from 665 undergraduate students (60% women) at a large public university. Their ages ranged from 17 to 20 years, with a mean of 18.4 ($SD = 0.4$). Participants were 83% Caucasian, 8% Asian, 4% African American, and 5% Other (e.g., biracial, Hispanic, Native American). The Axis II psychopathology of the sample is presented in Table 1.

MEASURES AND PROCEDURE

Peer Report of Personality Disorders. The Peer Inventory for Personality Disorders (PIPD; see Thomas, Turkheimer, & Oltmanns [in press] for more details about this measure) was designed to assess the criteria for each of the DSM-IV personality disorders. It includes 81 items based on the features of the 10 personality disorders listed in DSM-IV. These items were constructed by translating the DSM-IV criteria into lay language. The PIPD also includes 24 additional items pertaining to a variety of traits and descriptors (both positive and negative) that were mixed together with the personality disorder items to minimize the emphasis on pathological personality traits.

Participants living on the same dormitory floor completed the PIPD. Each dorm floor was either all male or all female. The size of typical peer groups was between EIGHT and 20 participants ($M = 15$, $SD = 3$). Participants had been living together for approximately 5 months at the time of data collection. The PIPD was presented on a computer screen. Items were listed one

by one at the top of the computer screen and the names of all other members of the group (excluding the name of the participant completing the PIPD) appeared below each trait description. For each item, participants were asked to nominate members of their peer group who exhibit the characteristic in question, using a scale of 0 to 3.

For each participant, the total number of nominations received on 10 sets of items (corresponding to the criteria for the 10 DSM-IV personality disorders) was computed. This number was then divided by the number of available nominators for each participant. This ensured that participants in larger peer groups would not be scored as having more peer-reported personality pathology solely as a result of having more peers available to nominate them. PIPD scores for the 10 sets of items corresponding to the 10 DSM-IV personality disorders were used as an index of peer-reported personality disorder. In a large nonclinical sample ($N = 2,100$), interrater reliability for PIPD scores (i.e., the average correlation between two judges across the items from each personality disorder scale) was found to be very good, ranging from .67 for schizoid personality disorder to .91 for narcissistic personality disorder (Oltmanns, Turkheimer, & Thomas, 1999). Agreement between peer and self-reports of domains of personality disorder tends to be modest (Klonsky, Oltmanns, & Turkheimer, 2002) and r was between .21 and .30 for the current sample (Thomas, Turkheimer, & Oltmanns, in press).

Peer Report of Gender Role. The total numbers of nominations received on two of the nonpersonality disorder PIPD items were used as indices of masculinity and femininity. The item assessing masculinity was, "Is quite masculine; acts in a way you'd expect a male to act." The item assessing femininity was, "Is quite feminine; acts in a way you'd expect a female to act." These items were used originally in the Bem Sex Role Inventory (BSRI; Bem, 1974). Although much research has cast doubt on the validity of many BSRI items for measuring masculinity and femininity (Payne, 1985), research has supported the use of these two items for this purpose (Auster & Ohm, 2000; Ballard-Reisch & Elton, 1992)

We computed interrater reliability using intraclass correlations for the masculinity and femininity items separately for men and women. Interrater reliability varies according to the number of peers. In this study, the number of peers available to make nominations was not the same for all participants. Therefore, for each item, we report a range of interrater reliability. The lower ends of the ranges reported assume the minimum number of peers available to make nominations (i.e., eight peers) and the higher reliability values assume the maximum number of peers available to make nominations (i.e., 20 peers). For men, reliability for the masculine item ranged from .63 to .81 and reliability for the feminine item ranged from .64 to .81. For women, reliability for the masculine item ranged from .70 to .85 and reliability for the feminine item ranged from .73 to .87.

Self Report of Personality Disorders. Self-report of the personality disorders was assessed using the same items as those in the PIPD (i.e., the 81 items corresponding to the DSM-IV personality disorder criteria as well as additional items). The items were presented on a computer screen. Each

item is listed at the top of the computer screen, and the participant is asked to rate him or herself on a 4-point scale, with scores ranging from 0 (*never this way*), 1 (*sometimes this way*), 2 (*usually this way*), and 3 (*always this way*). For each personality disorder, the ratings for each relevant criterion were summed to form a dimensional measure of personality disorder. Categorical diagnoses were derived by considering a criterion present if it was scored by the participant as a 2 or higher.

Self-Report of Gender Role. Two self-report items (identical to those used from the PIPD) were used as indices of masculinity and femininity. The item assessing masculinity was "Is quite masculine; acts in a way you'd expect a male to act." The item assessing femininity was "Is quite feminine; acts in a way you'd expect a female to act." As for the other self-report items, participants rated themselves on each of these items on a scale of 0 (*never this way*) to 3 (*always this way*).

DATA ANALYSIS

Correlations were computed between peer and self-reports of gender roles (i.e., masculinity and femininity) and self- and peer reports of the personality disorders. These correlations were conducted separately for men and women. We also examined which gender role-personality disorder relationships were significantly different for men than women. Specifically, for each personality disorder we tested whether interactions between gender role and sex were significant at the $p \leq .05$ level.

RESULTS

Correlations were computed among the peer and self-report measures of gender role. Peer-reported masculinity and femininity were correlated $-.37$. Self-reported masculinity and femininity were correlated $-.59$. The correlation between peer- and self-reported masculinity was $.47$. Peer and self-reports of femininity were correlated $.49$.

We also examined differences in the number of men versus women who met criteria for personality disorders on the basis of their self-report. A total of 27% of men and 20% of women met criteria for at least one personality disorder on the basis of their self-report. Men more often endorsed criteria from the antisocial, narcissistic, paranoid, and schizoid personality disorders. Women more often endorsed dependent personality disorder criteria. Prevalence rates for the schizotypal, borderline, histrionic, avoidant, and obsessive-compulsive personality disorders were more similar, although there was a slight trend for men to endorse more criteria from each of these personality disorders, except obsessive-compulsive. Prevalence rates for each of the personality disorders are presented separately for men and women in Table 1.

Correlations were computed between measures of gender role (assessed by peer and self-reports of masculinity and femininity) and the personality disorders (assessed by peer and self-reports of the 10 DSM-IV personality

TABLE 2. Correlations Between Peer Reports of Masculinity and Femininity and Peer and Self-Reports of the 10 DSM-IV Personality Disorders

Personality Disorder	Masculinity			Femininity		
	Men (N = 268)	Women (N = 397)	Diff ^a	Men (N = 268)	Women (N = 397)	Diff ^a
Self Paranoid	.01	.00	NS	-.02	.00	NS
Peer Paranoid	.03	.04	NS	.27	.00	.00
Self Schizotypal	-.13	.10	.01	.02	-.12	NS
Peer Schizotypal	-.16	.12	.00	.33	-.20	.00
Self Schizoid	-.10	.06	NS	.08	-.12	.02
Peer Schizoid	-.16	.16	.00	.21	-.24	.00
Self Antisocial	.17	.10	NS	-.14	-.07	NS
Peer Antisocial	.26	.06	NS	-.08	-.07	NS
Self Narcissistic	.17	-.02	NS	-.06	.13	.03
Peer Narcissistic	.25	-.09	.00	.13	.30	.04
Self Borderline	.04	.06	NS	-.06	-.02	NS
Peer Borderline	.06	.03	NS	.20	-.09	.00
Self Histrionic	.10	-.07	.05	.01	.12	NS
Peer Histrionic	.18	-.08	.01	.15	.21	NS
Self Avoidant	-.15	-.02	NS	.11	.00	NS
Peer Avoidant	-.20	-.02	NS	.29	.03	.00
Self Dependent	.07	-.08	.05	.07	.14	NS
Peer Dependent	-.03	-.14	.02	.21	.20	NS
Self Obsessive-Compulsive	-.02	-.01	NS	.06	.10	NS
Peer Obsessive-Compulsive	-.06	.00	NS	.18	.05	.05
Self Total PD ^b	.02	.01	NS	.01	.03	NS
Peer Total PD ^b	.02	.00	NS	.27	.06	.00

Note. Boldface indicates $p \leq .01$. ^aThe *Diff* column reports p -values for tests indicating that the regression coefficients for men and women are significantly different. NS = The correlations are not significantly different at an α level of $p \leq .05$. ^bTotal PD = the sum of the 10 personality disorder scores.

disorders). Results are summarized separately for men and women. Complete results are presented in Table 2.

PERSONALITY DISORDERS AND MASCULINITY

Men. For men, positive correlations were found between peer-reported masculinity and peer and self-reports of the antisocial, narcissistic, and histrionic personality disorders. Self-reported masculinity also correlated positively with these personality disorders. Negative correlations were found between peer-reported masculinity and peer and self-reports of the avoidant, schizotypal, and schizoid personality disorders. Smaller negative correlations were found between self-reported masculinity and these personality disorders. The sums of the 10 self and peer personality disorder scores were uncorrelated with masculinity for men. In general, there were small positive correlations for men between masculinity and Cluster B per-

sonality disorders and small negative correlations for men between masculinity and Cluster A personality disorders.

Women. For women, there was a negative association between masculinity and dependent personality traits. Both peer and self-reports of dependent personality disorder were negatively correlated with peer-reported masculinity and self-reports, but not peer reports, of dependent personality disorder were correlated negatively with self-reported masculinity. Self-reports of masculinity were also correlated with self-reports of the paranoid, schizotypal, schizoid, antisocial, narcissistic, borderline, and histrionic personality disorders and correlated negatively with narcissism. Peer report of masculinity was uncorrelated with total personality disorder scores; however, self-reported masculinity was correlated positively with the sum of the 10 self-report personality disorder scores and correlated negatively with the sum of the 10 peer report personality disorder scores.

PERSONALITY DISORDERS AND FEMININITY

Men. For men, peer reports for each of the 10 personality disorders except for antisocial personality disorder were correlated positively with peer reports of femininity. Similarly, self-reports for each of the 10 personality disorders except for antisocial were correlated positively with self-reports of femininity. Self-reports of antisocial personality disorder were correlated negatively with peer-reported femininity and peer reports of antisocial personality disorder were correlated negatively with self-reported femininity. Peer reports of obsessive-compulsive personality disorder were correlated positively with self-reported femininity. The sum of the 10 peer report personality disorder scores was positively correlated with peer-reported femininity; likewise, the sum of the 10 self-report personality disorder scores was positively correlated with self-reported femininity. The sum of the peer report personality disorder scores was uncorrelated with self-reported femininity and the sum of the self-report personality disorder scores was uncorrelated with peer-reported femininity. In sum, for men there were moderate associations between femininity and all the personality disorders, except antisocial.

Women. For women, peer and self-reports of the dependent, histrionic, and narcissistic personality disorders were correlated positively with both peer and self-reports of femininity. Conversely, peer and self-reports of the schizotypal and schizoid personality disorders were correlated negatively with both peer and self-reports of femininity. The sum of the 10 peer report personality disorder scores was uncorrelated with femininity, as was the sum of the 10 self report personality disorder scores. Overall, for women femininity was positively correlated with measures of the dependent, histrionic, and narcissistic personality disorders and negatively correlated with the schizotypal and schizoid personality disorders.

DISCUSSION

The present study investigated the relationship between gender role and the personality disorders. Specifically, we examined whether college students higher in masculinity or femininity were more or less likely to exhibit fea-

TABLE 3. Correlations Between Self Reports of Masculinity and Femininity and Peer and Self-Reports of the 10 DSM-IV Personality Disorders

Personality Disorder	Masculinity			Femininity		
	Men (N = 268)	Women (N = 397)	Diff ^a	Men (N = 268)	Women (N = 397)	Diff ^a
Self Paranoid	.02	.17	.03	.20	.08	.04
Peer Paranoid	.06	-.10	.04	.06	.08	NS
Self Schizotypal	-.10	.29	.00	.30	-.16	.00
Peer Schizotypal	-.08	.03	NS	.11	-.13	.00
Self Schizoid	-.08	.22	.00	.31	-.21	.00
Peer Schizoid	-.12	.08	.01	.05	-.19	.01
Self Antisocial	.10	.23	NS	.08	-.12	.02
Peer Antisocial	.10	-.03	NS	-.13	-.02	NS
Self Narcissistic	.12	.16	NS	.24	.08	.01
Peer Narcissistic	.11	-.18	.00	-.04	.21	.00
Self Borderline	.02	.23	.00	.21	-.06	.00
Peer Borderline	.06	-.08	NS	.03	.01	NS
Self Histrionic	.10	.16	NS	.23	.09	.03
Peer Histrionic	.18	-.13	.00	-.05	.17	.01
Self Avoidant	-.11	.09	.01	.31	.05	.00
Peer Avoidant	-.04	-.14	NS	.08	.12	NS
Self Dependent	-.01	.00	NS	.26	.17	NS
Peer Dependent	.13	-.21	.00	.00	.20	.01
Self Obsessive-Compulsive	.10	.10	NS	.22	.09	.05
Peer Obsessive-Compulsive	-.16	-.10	NS	.14	.05	NS
Self Total PD ^b	.02	.23	.00	.31	.01	.00
Peer Total PD ^b	.02	-.14	.02	.03	.09	NS

Note. Boldface indicates $p \leq .01$. ^aThe *Diff* column reports p -values for tests indicating that the regression coefficients for men and women are significantly different. NS = The correlations are not significantly different at an α level of $p \leq .05$. ^bTotal PD is the sum of the 10 personality disorder scores.

tures of the 10 DSM-IV personality disorders. The personality disorders and gender role were assessed using self-reports and peer reports.

Several associations between personality disorders and gender role were found. Because our study is correlational the direction of these effects remain ambiguous. For example, regarding a correlation between dependency and femininity, we can say either that feminine women are more dependent or that dependent women are more feminine. Both of these statements fit the data but they may be interpreted in different ways.

Many of the associations observed were consistent with past theory and research. Dependent personality traits were identified more frequently in participants, particularly women, who were more feminine and less masculine. This pattern is consistent with (a) Kaplan's (1983) argument that dependent personality disorder criteria represent stereotypically feminine behaviors; (b) Corbitt and Widiger's (1995) contention that high agreeableness is a typically feminine trait associated with dependent personality disorder; and (c) studies by Landrine (1989), Rienzi et al. (1995), and Sprock et

al. (1990) in which participants perceived DSM dependent personality disorder criteria as including feminine characteristics.

Antisocial personality traits were found more frequently in masculine participants. This is consistent with Corbitt and Widiger's (1995) suggestion that low agreeableness (i.e., deceit, lack of compliance, tough-mindedness) is a central component of antisocial personality disorder that occurs more often in men. It is also supported by research in which participants perceived DSM antisocial personality disorder criteria as including masculine characteristics (Landrine, 1989; Rienzi et al., 1995; Slavney, 1984; Sprock et al., 1990).

The present study also produced several unanticipated results. Contrary to Kaplan's (1983) concern that gender-biased DSM personality disorder criteria would overpathologize feminine-acting women, feminine-acting men exhibited the highest levels of personality pathology. Specifically, men perceived by their peers as feminine were more often nominated for all the DSM-IV personality disorders, except antisocial, and men who considered themselves feminine more often endorsed features from all the personality disorders, except antisocial. This pattern suggests that men who act contrary to their normative gender role are perceived by others, and themselves, as having personality problems. This same pattern was not as evident for women. Although women who viewed themselves as masculine also viewed themselves as having more Cluster A and B traits, these same women were viewed by their peers as having less personality pathology. In addition, women perceived by their peers as being masculine were not more likely to be seen as pathological. In today's society, it may be more acceptable for women than for men to behave contrary to their expected gender role.

Unexpected findings were also observed for histrionic personality disorder. Participants who typically behaved consistent with their gender (i.e., masculine men and feminine women) exhibited more histrionic features. We did expect to find a relation between femininity and histrionic personality features. The association between masculinity and histrionic features in men, however, is not as easily explained. It may be that extraverted and dramatic people are perceived as acting more like their gender. There may be masculine and feminine ways of being histrionic, the former being adopted more often by men and the latter more often by women.

This result might seem to be an artifact of our sample, since men and women were approximately equally likely to meet criteria for histrionic personality disorder based on their self-report. Kaplan's (1983) argument that DSM histrionic personality disorder is a gender-biased construct was based in part on the observation that women are more often diagnosed with the disorder. Consistent with our study, however, findings from a large-scale epidemiological study suggest that histrionic personality disorder is equally prevalent in men and women (Nestadt et al., 1990). Therefore, we do not believe that results regarding histrionic personality disorder are due to our sample being atypical.

A similar pattern was found for narcissistic personality disorder. Participants who typically behaved consistent with their gender (i.e., masculine men and feminine women) exhibited more narcissistic features. It is not

surprising that narcissism was associated with masculinity, since DSM-IV estimates that narcissism is more common in males (APA, 1994). The fact that feminine women were more likely to have narcissistic qualities is less easily explained. Perhaps reasoning similar to that used to explain findings regarding histrionic personality disorder may be applied. Narcissists may have in common with histrionics a tendency to be extraverted and exhibitionistic. Men and women who are more outgoing and therefore more visible to their peers may be viewed by their peers as being like their gender. There may be masculine and feminine ways of being narcissistic, the former being adopted more often by men and the latter more often by women.

The pattern of results for the schizotypal and schizoid personality disorders was opposite of that found for the histrionic and narcissistic personality disorders. Participants who acted less like their conventional gender role exhibited more features of the schizoid and schizotypal personality disorders. Less masculine men and less feminine women were more schizotypal and schizoid. Similar results were found for paranoid personality disorders. In attempting to understand this finding, we note that individuals with these disorders often appear odd and eccentric (APA, 1994). It is possible that participants viewed by themselves and others as being unlike their gender were also considered by themselves and others as odd, and therefore as having features of the schizotypal and schizoid personality disorders.

A similar but less robust pattern was found for borderline personality disorder. College students who rated themselves as behaving unlike their gender (i.e., feminine men and masculine women) endorsed more borderline personality features. Because Corbitt and Widiger (1995) demonstrated that in clinical samples women more often exhibit borderline traits, we may have expected an association between borderline personality disorder and femininity but not masculinity. However, women were not more likely to endorse borderline traits in our sample. Perhaps the gender difference observed in clinical samples does not generalize to nonclinical samples. Nevertheless, it is difficult to account for the relation we observed between self-reported gender role and borderline personality disorder. It may be that participants who considered themselves unlike their gender also considered themselves dysfunctional. Borderline personality traits are particularly maladaptive compared to other kinds of personality pathology.

The present study has several important strengths. First, it examined the relation between gender role and personality disorders as manifested in people, rather than vignettes or as rated in traits. Previous research on this issue relied on participant ratings of the masculinity or femininity of diagnostic criteria (Landrine, 1989; Rienzi et al., 1995; Sprock et al., 1990). Second, both personality disorders and gender role behavior were measured using peer and self-reports. Therefore, we can have more confidence in our finding of a relation between femininity and dependent personality disorder, for example, because the association is present whether these constructs are assessed from participants' or peers' perspectives. Relying on only one perspective may limit the reliability and validity of diagnostic assessment (Klonsky, Oltmanns, & Turkheimer, 2002).

Third, we used a nonclinical sample to evaluate the relation between gender role and the personality disorders. It is probably unusual in a study on

psychopathology to consider the use of a nonclinical population to be a strength. Suggestions by Kaplan (1983) and Corbitt and Widiger (1995), however, are best suited to be evaluated by investigating personality disorders in such a sample. Kaplan argued that normative women could meet criteria for a DSM personality disorder solely by being stereotypically feminine. A clinical sample of participants with personality disorders would not allow the possibility of feminine women without significant features of personality disorder. Corbitt and Widiger argued that gender differences in normal personality traits could explain gender differences found in the prevalence of personality disorders. A clinical sample would include participants with substantial Axis I psychopathology, which could inflate the appearance or actual presence of Axis II traits, and obscure the association between gender role and personality pathology.

This study also has limitations. One limitation is our measurement of gender roles. Unfortunately, there is no established and valid method for measuring masculinity and femininity. These terms have different meanings for different people. Efforts to develop definitions that resolve divergent notions of these constructs are ongoing (e.g., Good, 2001; Lippa, 2001). Research has cast doubt on the validity of the most commonly used measure of gender roles, the BSRI (Payne, 1985). Our study measured masculinity and femininity using one item for each construct. This approach can lead to problems of reliability of measurement. This was probably less of a disadvantage in the present study because between 8 and 20 peers had the opportunity to nominate each participant on the items. Having multiple sources of information (i.e., multiple raters) increased reliability substantially (see Oltmanns, Turkheimer, & Strauss [1998] for an illustration of the increase in reliability of multiple peers over a single informant). In addition, the items in our study allowed participants to use their implicit notions of masculinity and femininity. Our participants were asked to identify people who were "masculine" and "feminine" based on their own personal impression of the meaning of those words. We did not define the words for them or make any assumptions about how they would be used. Interrater reliabilities for our items were high, indicating that participants had similar implicit conceptions of what it means to be masculine or feminine. This finding yields some confidence that the participants' peer and self-reports of gender roles are meaningful.

We also note that many of the correlations between gender roles and personality disorders were small. Although our measurement of gender roles was adequate to detect statistically reliable relationships, it may be that a more reliable and valid measure would have yielded associations of greater magnitude. Having relatively small effect sizes is also the result of the multimethod approach we used to measure both gender roles and personality disorders. Correlations between peer and self-reports of the same personality variable are modest at best (Klonsky, Oltmanns, & Turkheimer, 2002). It is not surprising, then, that the correlations between self-reports of gender roles and peer reports of personality disorder, and between peer reports of gender roles and self-reports of personality disorders, are still smaller. Finally, it is possible that the nature of our sample affected the size of the correlations. There is likely less personality pathology in a sample of

college students than in a clinical sample. A minority of participants met full criteria for a DSM-IV personality disorder diagnosis. This restriction in the range of personality pathology in our sample may have restricted the magnitude of the correlations between personality pathology and gender roles.

In sum, consistent with previous research, dependent personality traits were associated with higher femininity and lower masculinity and antisocial personality traits were associated with higher masculinity. Contrary to some expectations, histrionic and narcissistic personality features were exhibited in both men and women who typically acted like their gender (i.e., masculine men, and feminine women). Schizoid and schizotypal personality disorder traits were more often found in people who behave unlike their gender (i.e., less masculine men, less feminine women). Finally, men viewed by themselves or by other men as being feminine were seen by themselves and others as exhibiting more features of all the personality disorders except antisocial. This finding indicates that men who do not behave in a manner consistent with their gender role are perceived as having pathological personality traits.

Future research should examine whether the relationships between gender role and personality disorder found in the present study can be replicated using clinical and other nonclinical samples. Ultimately, it will be important to determine whether being more masculine or feminine is truly associated with certain kinds of personality pathology or whether this relation represents gender bias in some of the DSM-IV personality disorder constructs (Widiger, 1991; Widiger & Spitzer, 1998).

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