
Psychological Mindedness and Awareness of Self and Others



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The major goal of this study was to explore the relationship among psychological mindedness (PM) and several facets of awareness, including a general sense of mindfulness (Mindful Attention Awareness Scale; Brown & Ryan, 2003), as well as more specific awareness of self (self-consciousness scale; Fenigstein, Scheier, & Buss, 1975) and others (Interpersonal Reactivity Index; Davis, 1980). Participants were 103 undergraduate students at an urban liberal arts college. Results indicated that PM (PM Scale; Conte, Plutchik, Jung, Picard, Karasu, & Lotterman, 1990) is related to mindfulness ($r = .41, p < .01$), private self-consciousness ($r = .27, p < .05$), as well as cognitive ($r = .30, p < .01$) and affective ($r = .35, p < .01$) indices of empathy. Self-consciousness and empathy explained a significant amount of variance in PM in a simultaneous-entry multiple regression. These findings support theoretical claims that PM involves awareness of self and others. © 2004 Wiley Periodicals, Inc. *J Clin Psychol* 61: 739–750, 2005.

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Psychological mindedness (PM), in its broadest sense, involves awareness and understanding of psychological processes, such as thoughts, feelings, and behaviors. Some definitions of PM focus on self-awareness. For example, Applebaum (1973) wrote that PM is "A person's ability to see relationships among thoughts, feelings, and actions, with the goal of learning the meanings and causes of his experiences and behavior" (p. 36). Some definitions focus on awareness of others: Gough (1957/1975) defined the psychologically minded person as one who is "interested in, and responsive to, the inner needs, motives, and experiences of others" (p. 11).

Farber (1985) offered a comprehensive definition of PM that involves awareness of psychological processes in self and others: ". . . the disposition to reflect upon the meaning and motivation of behavior, thoughts, and feelings of oneself and others" (p. 170). Following this definition, Conte et al. (1990) designed the PM Scale, a 45-item self-report measure of PM toward self and others. Factor-analytic work on the PM Scale (Conte, Ratto, & Karasu, 1996; Shill & Lumley, 2002) has provided an empirical definition of PM: It involves ". . . a degree of access to one's feelings that leads, through discussion of one's problems with others, to an ability to acquire insight into the meaning and motivation of one's own and others' thoughts, feelings, and behavior, and to a capacity for change (Conte & Ratto, 1997, p. 21).

This definition includes awareness of psychological processes in self and others. In other words, the psychologically minded person perceives the thoughts and feelings that constitute the psychological world: The high-PM person understands that psychological constructs have substance and that they matter in a fundamental way. Psychologically minded thinking about oneself involves awareness of one's own thoughts and feelings. Therefore, the alexithymic patient—who lacks emotional awareness—would not be able to think in a psychologically minded way about him- or herself. Others' thoughts and feelings may also become the focus of psychologically minded thinking. As such, the autistic patient—who exhibits mindblindness, or lack of awareness of the psychological life of others—would not be able to think in a psychologically minded way about others.

Beyond awareness, PM implies an understanding of psychological processes. Once the high-PM individual has perceived psychological data, i.e., a sequence of thoughts or feelings, then he or she is in a position to make sense of that data by noting patterns and relationships among thoughts, feelings, and behaviors. The relationship between PM and psychological understanding is beyond the scope of this paper and will be taken up in subsequent work.

The focus of this paper is the relationship between PM and awareness. Very little empirical research has been conducted upon the awareness aspect of PM, despite its central importance to the construct. To begin to fill this gap, we examined the relationships among PM and general awareness (mindfulness), the trait of self-awareness (self-consciousness), and awareness of others (empathy).

PM and Mindfulness

Both PM and mindfulness involve awareness of emotions. Brown and Ryan (2003) defined mindfulness as ". . . an enhanced attention to and awareness of current experience or present reality." Current experience includes emotional states of which a person might be more or less aware. In fact, mindfulness correlated with a measure of emotional awareness (Trait Meta-Mood Scale, TMMS; Salovey, Mayer, Goldman, & Palfai, 1995) at .49, $p < .001$ in their undergraduate sample ($N = 313$). Therefore, PM and mindfulness should be directly related to one another.

Horowitz (2002) explained that PM and mindfulness were similar constructs, related by self-observation. Both PM and mindfulness require that an individual observe what he or she experiences. Brown and Ryan (2003) reported modest correlations between self-consciousness (as measured by the self-consciousness scale (SCS); Fenigstein, Scheier, & Buss, 1975) and mindfulness in their sample of 313 undergraduates: private self-consciousness ($r = .03, p = ns$), self-awareness ($r = .23, p < .0001$), self-reflectiveness ($r = -.13, p < .05$), and public self-consciousness ($r = -.14, p < .05$).

Empirically, PM and mindfulness relate to Big Five personality traits in similar ways, suggesting that they might be positively associated with one another. Brown and Ryan (2003) reported correlations for mindfulness with neuroticism ($r = -.33, p < .0001$) and openness ($r = .18, p < .05$) on the NEO-FFI (Costa & McCrae, 1992) which were in line with Beitel and Cecero's (2003) findings for PM: neuroticism ($r = -.33, p < .01$) and openness ($r = .40, p < .01$).

No study to date has investigated the relationship between PM and mindfulness. We expected that the two constructs would be positively related to one another because both involve self-awareness. This correlation was predicted to be moderate because mindfulness is a more general construct: It is also more present-focused. PM involves more of a synthesizing, pattern-spotting attentional capacity. The high-PM patient may do well in therapy because he or she can focus attention on past maladaptive patterns, on the here-and-now of therapy, and on the future. Therefore, mindfulness is seen as a necessary but not sufficient condition for PM.

PM and Self-Awareness

Self-awareness is a necessary precondition for PM. Fenigstein, Scheier, and Buss (1975) defined self-awareness as a state in which attention is directed toward the self. They described self-consciousness as the chronic disposition to direct attention toward the self. Self-consciousness and PM have been seen as overlapping constructs by some researchers. In fact, Farber (1989) had used the PR-SCS (described above) as a measure of PM until the PM scale became available. Fenigstein (1997) suggested that the constructs are similar in important ways. For example, both involve "heightened awareness of ongoing mental processes" (p. 117).

Fenigstein (1997) noted a conceptual difference between self-consciousness and PM: self-consciousness involves awareness of mental processes, while PM involves awareness plus an interest in explaining the objects of awareness in psychological terms. Horowitz (2002) observed that the kind of self-observation involved in PM and mindfulness "is different from stressful self-monitoring or anxious self-preoccupation," referring to traits measured by the SCS (p. 115). The SCS appears to have a negative valence, tapping "concerns." Empirically, it has correlated positively with measures of depression and anxiety (Fenigstein, 1997). Trapnell and Campbell (1999) demonstrated that the SCS measures healthy self-reflection as well as pathological self-rumination, using their Reflections and Ruminations Questionnaire (RRQ).

PM and self-consciousness have been demonstrated to be positive empirical associations. Trudeau and Reich (1995) found that the PM Scale and the PR-SCS were directly related to one another ($r = .45, p < .01$) in a sample of 89 undergraduates. This relationship was predicted given that PR-SCS measures awareness of internal states. The other SCS scales PU-SCS and SA were not administered in that sample. Even higher correlations might be expected among PM, public self-consciousness, and social anxiety, because the latter measure attention toward self plus some consideration of how one is perceived

by others. This additional consideration is more akin to PM, which deals with one's relationship to others.

Empirical findings also suggest differences between PM and self-consciousness as well. For example, they exhibited different relationships to well being (PWB Scale; Ryff, 1989) in the study by Trudeau and Reich (1995). Both were significantly predictive of PWB in a simultaneous-entry multiple-regression context. However, PM was positively related to PWB ($\beta = .42, t = 3.66, p = .01$) and PR-SCS related negatively ($\beta = -.23, t = -2.00, p = .05$). This finding suggests that PM and well-being increase together as PR-SCS decreases.

PM and Empathy

Davis (1983) wrote that: ". . . empathy in the broadest sense refers to the reactions of one individual to the observed experiences of another" (p. 113). He defined cognitive and affective domains of empathy: perspective-taking (PT) is the tendency for a person to take the "psychological point of view of others." Empathic concern (EC) taps feelings of sympathy and concern for unfortunate others. Schlesinger (1994, p. 33) defined empathy as the midpoint on a continuum between alienation and identification with another person. Both definitions require that one must pay attention to others in order to demonstrate empathy.

Attending to another person empathically provides an experiential sense of that person. Certainly, one learns something about what the other person thinks and feels. Beyond content, one may observe cognitive and affective processes in action. Thus, empathy provides access to the data of interest to a psychologically minded person, i.e., the thoughts and feelings of others. Once another's psychological processes are observed, then the high-PM person is in a position to hypothesize about the origins, maintenance strategies, and functions of those processes, i.e., to think in a psychologically minded way about them. Without empathically derived information, one's psychological formulations are educated guesses at best.

Since PM is a cognitively toned personality variable, with positive relations to ambiguity tolerance (Beitel, Ferrer, & Cecero, 2004), it should correlate positively with cognitive measures of empathy, such as PT. PM also involves access to feelings: The PM Scale has been related inversely to measures of emotional impairment in several studies (Bagby, Taylor, & Parker, 1994; Beitel & Cecero, 2003). Therefore, it should be positively related to more affective measures of empathy, such as EC. Hatcher and Hatcher (1997) argued that empathy is an important constituent of PM. They suggested that PM incorporates self-awareness and empathy, but is greater than the sum of these parts. Therefore, a large percentage of PM's variance should be explained by self-awareness and empathy. The present study renders the assertion in testable form.

Goals and Hypotheses

The major goal of this study was to explore the relationship among PM and several facets of awareness, including a general sense of mindfulness as well as more specific awareness of self (self-consciousness) and others (empathy). This effort is also an attempt to guard against construct proliferation, by ensuring that PM is not redundant with pre-existing constructs. An overarching goal of our research program is to extend the construct validity of the PM Scale.

This study provides an opportunity to replicate and extend PM research findings. We attempted to replicate the positive relationship between PM and PR-SCS reported by

Trudeau and Reich's (1995), while extending the effort to include PU-SCS and social anxiety. This study is the first to explore the relationship between PM and mindfulness. It is also the first to examine PM in relation to cognitive and affective components of empathy. The relationship between empathy and mindfulness is also presented. These replications and extensions occur within the context of a single study, which allows for the simultaneous examination of several important relationships.

Method

Participants

The 103 undergraduate participants were recruited from an urban, liberal arts college in New York. There were 79 women and 24 men in this sample, ranging in education level from freshman to senior: 6% were freshman, 7% were sophomores, 28% were juniors, and 52% were seniors. The mean age of the sample was 27 years ($SD = 8.80$). This sample was ethnically diverse: 44% Caucasian, 19% Hispanic, 20% African-American, 13% Asian, and 4% described themselves as "other." Volunteers received a keepsake with college logo in exchange for their participation in the study. Informed consent was obtained and participants were debriefed verbally and in writing at the conclusion of their participation. The instruments were presented in counterbalanced order.

To determine the number of participants required detecting a medium-size effect in a multiple regression analysis with seven predictors, an a priori power analysis was computed. The power analysis was conducted with GPOWER (Erdfelder, Faul, & Buchner, 1996). It was determined that 103 participants would be required to detect a medium effect, with power set to .80 and alpha set to .05. The observed effect size from the multiple regression analysis presented in Table 3 was .23, which indicates a medium effect (Cohen, 1992, p. 343).

Measures

Psychological Mindedness Scale (PM Scale). The Psychological Mindedness Scale (Conte et al., 1990) is a 45-item self-report measure. The items are presented on a four-point scale and range from "strongly agree" to "strongly disagree." Examples of test items include: "I am always curious about the reasons people behave as they do," "I like to try new things, even if it involves taking risks," and "Often I don't know what I'm feeling." Temporal stability was assessed over a two-week period in a sample of 22 normal adults ($r = .92$). Internal consistency ($\alpha = 0.87$) was good in a sample of 256 psychiatric outpatients.

Beitel and Cecero (2003) found that the PM Scale was negatively correlated ($r(185) = -.33, p < .01$) with the neuroticism subscale of the NEO Five Factor Inventory (NEO-FFI; Costa & McCrae, 1992). The PM Scale related negatively ($r(83) = -0.68, p < .01$) to the Toronto Alexithymia Scale (TAS-20; Bagby, Taylor, & Parker, 1994). PM was positively associated with extraversion ($r(185) = .37, p < .01$) and openness to experience ($r(185) = .40, p < .01$) in Beitel and Cecero's (2003) study of university students. PM and self-reported psychological well being (PWB Scale; Ryff, 1989) were positively correlated ($r(87) = .31, p < .01$) in a college sample (Trudeau & Reich, 1995).

Mindfulness Attention Awareness Scale (MAAS). The MAAS (Brown & Ryan, 2003) is a 15-item, self-report measure of mindfulness. The items are presented on a six-point

Likert scale ranging from 1 (almost always) to 6 (almost never). High scores indicate more mindfulness. To reduce social desirability, respondents are asked to rate the items in terms of what "really reflects" their experience rather than what they think their experience ought to be. Temporal stability has been assessed with a sample of 60 undergraduates over a four-week period ($ICC = .81, p < .0001$). Coefficient alpha has ranged from .82 in an undergraduate sample ($N = 327$) to .87 in a general adult sample ($N = 239$).

Evidence for the MAAS's convergent and discriminant validity is presented in Brown and Ryan (2003). The MAAS has correlated positively with a variety of self-report instruments that tap self-awareness. For example, the Trait Meta-Mood Scale (TMMS; Salovey et al. 1995) measures attention to feelings, clarity of emotional experience, and repairing unpleasant mood states. The MAAS correlated with overall emotional awareness on the TMMS at .46 ($p < .001$), attention ($r = .19, p < .001$), clarity ($r = .49, p < .0001$), and repair ($r = .37, p < .0001$). The MAAS has been associated positively with a variety of well-being measures, such as positive affect ($r = .30, p < .0001$) on the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). In contrast, it was inversely related to negative affect ($r = -.39, p < .0001$).

Interpersonal Reactivity Index (IRI). The IRI is a 28-item, self-report measure of empathy. Items appear on a five-point scale ranging from 0 (does not describe me well to 4 (describes me very well). Sample items include: "When I'm upset at someone, I usually try to 'put myself in his shoes' for a while," and "I am often quite touched by things that I see happen." The IRI has four seven-item subscales that tap cognitive and affective dimensions of empathy: fantasy (FR), perspective-taking (PT), empathic concern (EC), and personal distress (PD). Reported alpha coefficients have ranged from .71 to .77 (Davis, 1983). Test-retest reliabilities have reportedly ranged from .62 to .71 (Davis, 1983).

The IRI was compared to two pre-existing, self-report measures of empathy, one more cognitive (Hogan Empathy Scale, 1969) and the other more affective (Mehrabian & Epstein, 1972). PT was more highly correlated with the cognitive scale ($r_{\text{Females}} = .37, p < .05; r_{\text{Males}} = .42, p < .05$) in a sample of 460 undergraduates. As predicted, EC was more strongly related to the affective measure ($r_{\text{Females}} = .56, p < .05; r_{\text{Males}} = .63, p < .05$).

Davis (1983) reported that the IRI related to several psychological variables in theoretically predicted ways. In a sample of 400 undergraduate students, the highest IRI subscale correlation was PD with social anxiety on the self-consciousness scale (SA-SCS; Fenigstein, Scheier, & Buss, 1975; $r_{\text{Females}} = .39, p < .01; r_{\text{Males}} = .43, p < .01$). Public self-consciousness, on the SCS, correlated with FS at .19 for women and .25 for men. Intelligence, as measured by the WAIS ($N = 114$), was uncorrelated (as predicted) with every IRI subscale with one exception: WAIS vocabulary was related to FS for women ($r = .28, p < .05$).

Self-Consciousness Scale (SCS; Fenigstein, Scheier, & Buss, 1975). The SCS is a 23-item instrument intended to measure the trait of self-awareness. The items are presented on a five-point scale ranging from 0 (extremely uncharacteristic) to 4 (extremely characteristic). Sample items include: "I'm always trying to figure myself out," "I'm concerned about the way I present myself," and "I get embarrassed very easily." The SCS has three subscales that measure private self-consciousness (PR-SCS), public self-consciousness (PU-SCS), and social anxiety (SA-SCS). Coefficient alphas have been reported as follows PR-SCS ($\alpha = .74$), PU-SCS ($\alpha = .81$), and SA-SCS ($\alpha = .80$).

Test-retest reliabilities, in a sample of 84 undergraduates, were as follows: PR-SCS (.79), PU-SCS (.84), and SA-SCS (.73).

The SCS has been an extremely popular instrument, as the subject of hundreds of studies in psychology over the past two decades. Individuals who score high in PR-SCS provide more detailed and more extensive self-descriptors (Franzoi, 1983). High PR-SCS also report heightened affective experience relative to low PR-SCS people (Scheier, Carver, & Gibson, 1979). Trudeau and Reich (1995) reported a significant positive correlation between the PM scale and PR-SCS ($r = .45, p < .01$) in a sample of 89 undergraduates. Those individuals who reported high PU-SCS scores tended to be more aware of their personal appearance (Nasby, 1989) and tended to believe that they were objects of social attention at higher rates than low PU-SCS individuals (Fenigstein & Venable, 1992).

Results

Scale descriptive statistics are presented in Table 1. Means, standard deviations, and alphas were in line with findings from prior studies, and were acceptable for research purposes. Table 2 displays correlations among PM and the other study variables. PM and mindfulness (MAAS) were significantly, positively correlated as predicted ($r = .41, p < .01$). Both cognitive (PT) and affective (EC) measures of empathy were positively related to PM ($r_{PT} = .30$ and $r_{EC} = .35, p < .01$). PM was inversely related to personal distress (PD, $r = -.36, p < .01$) on the Interpersonal Reactivity Index.

PM was also related to measures of self-consciousness. As predicted, private self-consciousness (PR-SCS) and PM were positively associated ($r = .27, p < .05$). Contrary to prediction, public self-consciousness (PU-SCS) was unrelated to PM ($r = -.04, p = .67$). The PU-SCS item to PM correlations were examined to learn more about this unexpected finding. PM was significantly, inversely correlated with a cognitive-appraisal item ($r = -.25, p < .05$): Item 19 "I'm concerned about what other people think of me." PM was associated with two items representing awareness of one's physical self as an object of attention: The item focusing on self-conscious awareness was negatively associated (but not significantly) with PM ($r = -.12, p = .28$): Item 11 "I'm self-conscious about the way I look." The item focusing on self-awareness was positively (but not significantly) associated with PM ($r = .12, p = .28$): Item 21 "I'm usually aware of my

Table 1
Scale Descriptive Statistics

Variable	Descriptives		
	<i>M</i>	<i>SD</i>	α
Psychological Mindedness (PM)	134.74	14.22	.86
Mindfulness (MAAS)	60.37	13.99	.88
Perspective-Taking (IRI)	18.23	4.81	.70
Empathic Concern (IRI)	20.98	4.51	.71
Personal Distress (IRI)	10.30	4.96	.67
Private Self-Consciousness (SCS)	25.67	6.28	.70
Public Self-Consciousness (SCS)	18.11	6.12	.81
Social Anxiety (SCS)	12.27	5.66	.75

Note. PM = Psychological Mindedness Scale; MAAS = Mindful Attention Awareness Scale; IRI = Interpersonal Reactivity Index; SCS = Self-Consciousness Scale.

Table 2
Correlations Among PM and Awareness Variables

Variable	PM	MAAS	PT	EC	PD	PR	PU	SA
PM	—							
MAAS	.41**	—						
PT-IRI	.30**	.41**	—					
EC-IRI	.35**	.28*	.42**	—				
PD-IRI	-.36**	-.49**	-.32**	-.01	—			
PR-SCS	.27*	-.13	.05	.26*	.15	—		
PU-SCS	-.04	-.23*	.20*	.12	.34**	.57**	—	
SA-SCS	-.40**	-.31**	-.24*	-.06	.52**	.01	.35	—

Note. PM = Psychological Mindedness Scale; MAAS = Mindful Attention Awareness Scale; Interpersonal Reactivity Index (IRI) Subscales: PT = Perspective Taking, EC = Empathic Concern, PD = Personal Distress; Self-Consciousness Scale (SCS) Subscales: PR-SCS = Private Self-Consciousness, PU-SCS = Public Self-Consciousness, SA-SCS = Social Anxiety.

* $p < .05$. ** $p < .01$.

appearance." PM and social anxiety (SA-SCS) were inversely related to one another in this study ($r = -.40, p < .01$)

To test Hatcher and Hatcher's (1997) assertion that PM is constituted by self-awareness and empathy, a simultaneous-entry multiple-regression equation was constructed by regressing PM upon PR-SCS and the IRI subscales of PT and EC (see Table 3). Note that PU-SCS was left out of the equation, as it was uncorrelated with PM. The predictors explained 19% of the variance in PM.

The relationships among PM and the distress/anxiety variables (SA-SCS and PD-IRI) that are not core constituents of their respective constructs (self-consciousness and empathy), were analyzed in a separate, exploratory analysis (see Table 4). SA-SCS and PD-IRI were not significantly related to one another ($r = -.11, p > .05$). However, both Pearson (see Table 2) and part (see Table 4) correlations revealed strong, opposing relationships to PM for each variable.

The variables in this study appeared to be normally distributed. Visual inspection of pairwise scatterplots suggested that the variables were also linearly related to one another. Internal consistency coefficients were all above .70, with the exception of PD-IRI ($\alpha = .67$). Participant age was unrelated to all variables except PR-SCS, with which it demonstrated an inverse relationship ($r = -.22, p < .05$). Possible mean differences by sex within each variable were assessed with independent-sample t tests (two-tailed). The Bonferroni correction was employed to maintain a family-wise type I error rate of .05,

Table 3
Psychological Mindedness Regressed Upon Self-Consciousness and Empathy Variables

Variable	β	SE	t	p	r_{part}
PT-IRI	.215	.327	2.01	.048	.200
EC-IRI	.224	.354	2.05	.044	.203
PR-SCS	.211	.236	2.06	.042	.205

Note. Interpersonal Reactivity Index (IRI) Subscales: PT = Perspective Taking, EC = Empathic Concern. PR-SCS = Private Self-Consciousness. Standardized beta weights are shown. Overall equation, $R^2 = .19, p < .001$.

Table 4
Psychological Mindedness Regressed Upon Distress/Anxiety Variables

Variable	β	SE	<i>t</i>	<i>p</i>	<i>r</i> _{part}
PD-IRI	-.189	.314	-1.65	.102	-.159
SA-SCS	-.324	.281	-2.82	.006	-.272

Note. PD = Personal Distress; SA = Social Anxiety. Standardized beta weights are shown. Overall equation, $R^2 = .21, p < .001$.

resulting in a more stringent *p* value of .007. Sex differences were not detected within any of the variables (all *p* > .01).

Discussion

PM is “. . . the disposition to reflect upon the meaning and motivation of behavior, thoughts, and feelings of oneself and others” (Farber, 1985, p. 170). In order to reflect on psychological data, one must become aware that these data exist in the first place. Therefore, the capacity for psychological awareness is central to PM. As such, the major goal of this study was to identify the facets of awareness most relevant to PM. Horowitz (2002) theorized that PM and mindfulness were similar constructs. The Pearson correlation between the PM scale and the MAAS support this hypothesis. Though related, they are two independent constructs. PM includes a general attentiveness plus an interest in psychological conceptualization. Mindfulness, then, may be a necessary precondition for psychological thinking, as Freud (1953) suggested with his concept of even-hovering attention.

Hatcher and Hatcher (1997) suggested that self-observation and empathy were two integral elements of PM and findings from this study support this hypothesis. These findings demonstrate empirically that PM is associated with awareness of cognitive and affective processes, which are—in theory—of great interest to the highly psychologically minded individual. These findings suggest that people who report high PM also tend to report higher awareness of self and others.

As predicted, PM and private self-consciousness were positively correlated, though not as highly as reported in Trudeau and Reich (1995). One surprising finding was that PM and public self-consciousness were unrelated. It was predicted that they would be related for two reasons: both take the self as the object of attention and both consider the self in relation to others. PM and social anxiety were negatively correlated in this study. Perhaps one reason why high PM patients do well in group therapy (McCallum & Piper, 1997) is that they are low in social anxiety.

Highly psychologically-minded individuals are able to attend to cognitive (Beitel, Ferrer, & Cecero, 2004) and affective (Beitel & Cecero, 2003) dimensions of their own experience. This study measured how well they report attending to others in these ways. PM was positively related to both cognitive and affective empathy. This finding supports the Hall (1992) model, which suggests that PM requires affective and cognitive involvement.

PM was inversely related to personal distress, suggesting that high PM people are able to remain calm and attentive in emergency situations. This finding is in line with Beitel and Cecero's (2003) report that PM is inversely related to neuroticism on the Five-Factor Inventory (Costa & McCrae, 1992). Taken together, these findings indicate that individuals who report high PM also report low distress in emergency situations and in general.

Given the inverse relationship between PM and PD, it could be that PM serves as a protective factor in stressful moments. There are several conceivable reasons for this, including the possibility that PM is an effective coping mechanism, one that is capable of buffering personal distress. In general, having an enriched psychological vantage point provides more information, and perhaps more useful information, to deal with a stressful situation. For example, the psychologically minded person might be able to appreciate the psychological factors associated with a crisis and then craft an appropriate psychological response. PM allows one to observe patterns and dynamics, to compare the situation to past experience, and to predict outcomes—all of which might be brought to bear during a crisis. PM also implies a reflective, analytic attitude that might keep a person from acting impulsively or mindlessly in an emergency.

As suggested by previous work on PM and attachment (Alvarez, Farber, & Schonbar, 1998; Beitel & Cecero, 2003), PM may develop in securely attached, well-adjusted individuals. Therefore, PM might be accompanied by a wide range of mature defenses, which could be invoked during times of personal distress. The high-PM individual's natural interest and curiosity in psychological life might override the anxiety felt by low-PM people in similar situations. These possibilities might shed light on the question of why high-PM patients tolerate the distressing elements of psychotherapy better than low-PM patients do. It also provokes thought about why psychotherapists are able to do work that many people consider personally distressing.

There are several study limitations that should be addressed. First, these self-reported data provide a view of how participants see themselves, but do not provide information about how others view them. The second limitation is that the internal-consistency estimate ($\alpha = .67$) for the PD-IRI scale was slightly lower than Nunnally's (1978) recommended cutoff of .70. This might have affected the way in which this subscale related to other variables. Lastly, the sample was composed of university students; so, the extent to which the findings generalize to other populations remains to be tested.

Multiple methods of assessment, such as peer ratings or semi-structured interviews, might be used in future studies to examine PM from different vantage points. The relationship between PM and awareness should be studied in various samples such as psychotherapy patients, therapists, and experienced meditators to test the generalizability of these findings. Once the awareness-related components of PM are understood, then future research should focus how understanding of self and others relates to PM.

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