

Original Papers

Polish Psychological Bulletin
2008, vol. 39 (3), 111-117
DOI - 10.2478/v10059-008-0022-7

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Identity Processing Style and Defense Mechanisms

To investigate relationships between identity processing styles and patterns of defense mechanisms, 213 participants (Mean age = 23.01 years) completed measures of defense-mechanism clusters and styles of negotiating (or managing to avoid) identity conflicts and threats (64% of the participants were female). A self-exploratory, informational identity style was associated with defense mechanisms that control anxiety and threats via internal cognitive maneuvers. In contrast, a diffuse-avoidant identity style was found to be related to maladaptive defensive maneuvers including turning against others and turning aggression inward against oneself, which is related to depressive reactions. A foreclosing, normative identity style was associated with defenses that limit awareness of threatening ideas and information by denial, distortion, and negation. None of these relationships was qualified by age or gender. The findings are discussed in terms of a process model of identity development that emphasizes social-cognitive differences in how individuals construct, maintain, and reconstruct their self-identity.

Keywords: Identity style, Defense mechanisms, Identity, Social-cognitive, Adolescence

Identity Processing Style and Defense Mechanisms

A major challenge that adolescents face on the road to becoming reasonably effective and responsible self-governing adults is forming a stable and coherent sense of identity. Recent research has demonstrated that progress in identity formation is associated with stylistic differences in the social-cognitive processes youth use to cope with identity conflicts, make commitments, and process self-relevant information (e.g., Berzonsky, 1990, 2003a; Streitmatter, 1993). These identity styles include: 1) an informational, self-exploratory style found to characterize youth who have personally achieved or are in the process of achieving (engaged in a moratorium) a sense of self-identity; 2) a normative style characteristic of identity foreclosed youth who have automatically internalized prescriptions of significant others; and 3) a diffuse-avoidant style used by identity confused youth with relatively few strong commitments (Berman, Schwartz, Kurtines, & Berman, 2001; Berzonsky, 1989, 1990; Berzonsky & Adams, 2000; Berzonsky & Kuk, 2000; Berzonsky & Neimeyer, 1994; Schwartz, Mullis, Waterman, & Dunham, 2000; Streitmatter, 1993).

Youth with an informational identity style intentionally seek out, process, and evaluate self-relevant information. An informational style is associated with rational/analytical thinking, a high need for cognition, experiential openness, self-reflection, awareness of internal states, personal agency, and resourcefulness (Berzonsky, 1990, 2002, 2003a; Berzonsky & Sullivan, 1992; Dollinger, 1995; Duriez, Soenens, & Beyers, 2004). Youth with a normative style more automatically internalize the standards and expectations of significant others. A normative style is associated with being self-controlled, committed, and goal oriented, but also being intolerant of ambiguity, authoritarian, closed to alternative values, and having a high need for structure and cognitive closure (Berzonsky, 1990, 2002, 2003b; Dollinger, 1995; Soenens, Duriez, & Goossens, 2005). Youth with a diffuse-avoidant style procrastinate and attempt to avoid dealing with problems and personal conflicts as much as possible. When they have to act, their behavior is influenced mainly by situational demands and consequences. Diffuse-avoidance is positively correlated with procrastination, avoidance, task-irrelevant behaviors, and depressive reactions and negatively associated with self-awareness, analytical thinking, commitment, and self-control (Berzonsky, 1990, 2002, 2003b; Berzonsky &

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Ferrari, 1996; Dollinger, 1995; Nurmi, Berzonsky, Tammi, Kinney, 1997).

When faced with stressful conflicts and situations, youth with high informational style scores have been found to rely on active, problem-focused strategies. They seek out and evaluate relevant options and possible solutions in an attempt to resolve the problem (Berzonsky, 1992; Soenens, Duriez et al., 2005). In situations where problems cannot be actively solved, they are apt to change the stressful event by cognitively reinterpreting events and restructuring the situation (Berzonsky, 1990; Dusek & Berzonsky, 1993). In contrast, youth who score high on diffuse-avoidance tend to be more emotion-focused, their primary concern is to deny the stressful situation. They employ tactics such as withdrawing, engaging in task-irrelevant behaviors or wishful thinking (Berzonsky, 1992; Nurmi et al., 1997; Soenens, Duriez et al., 2005). Diffuse-avoidance is also associated with negative emotional reactions such as anxiety, self-criticism, depressive reactions, and so forth (Berzonsky, 1990, 1992; Nurmi et al., 1997). In stressful encounters, youth with high normative scores have been found to seek reassurance and social support from others (Berzonsky, 1992; Berzonsky & Kuk, 2005; Nurmi et al., 1997).

Although these studies indicate that identity style is associated with differences in the strategies individuals use to cope with and manage stressors, linkages between identity style and more automatic defense mechanisms have not been established. The purpose of the present investigation, therefore, was to examine relationships between identity processing styles and patterns of defense mechanisms as measured by the Defense Mechanism Inventory (Ihilevich & Gleser, 1986). Defense mechanisms are relatively automatic cognitive and behavioral maneuvers that function to relieve anxiety, handle conflicts, and protect the self from disorganization and perceived threats (Gleser & Ihilevich, 1969).

Because an informational style is associated with rational/analytical cognitive processes, self-reflection, awareness of internal states, and a high need for cognition (Berzonsky, 1990, 2002, 2003a), we expected it to be associated with the use of relatively complex internalized cognitive maneuvers that control anxiety and defend against self-threats by rationalization or intellectualization (Ihilevich & Gleser, 1986). A diffuse-avoidant identity style is associated with limited self-awareness, avoidant coping, an external locus of control, and maladaptive decisional strategies such as predecisional panic and postdecisional rationalization and buck passing (Berzonsky, 1990, 1992, 2003a; Berzonsky & Ferrari, 1996; Soenens, Duriez et al., 2005). Accordingly, we expected a diffuse-avoidant style to be correlated with the use of maladaptive ego-defensive behaviors that deal with conflict by externalizing blame and attributing responsibility to others (Gleser &

Ihilevich, 1969; Haan, 1977; Ihilevich & Gleser, 1986). However, because diffuse-avoidance is also associated with negative emotional reactions including being self-critical and experiencing low self-esteem and depressive reactions (Berzonsky, 1992, 2003a; Berzonsky & Ferrari, 1996; Nurmi et al., 1997; Soenens, Duriez et al., 2005), it may also be associated with intrapersonal maneuvers that deal with conflict by turning aggression inward on oneself (Gleser & Ihilevich, 1969; Ihilevich & Gleser, 1986).

Finally, research indicates that a normative identity style is associated with a high need for structure, authoritarianism, intolerance of ambiguity, prejudice, a foreclosed identity, and a lack of openness to information that may threaten core areas of the self like value and belief systems (Berzonsky, 1990, 1992, 2002; Berzonsky & Neimeyer, 1994; Berzonsky & Sullivan, 1992; Duriez et al., 2004; Soenens, Duriez et al., 2005). Consequently, we expected a normative identity style to be associated self-defenses that distort, negate, or deny reality (Gleser & Ihilevich, 1969; Ihilevich & Gleser, 1986).

Methods

Participants

The participants were 213 students (133 females, 80 males) enrolled in a community college. They varied in age from 18 to 45 years (Mean age = 23.06 years). They were predominately middle class students recruited from psychology classes and they received extra course credit for participating.

Measures

Defense Mechanisms. Defenses were assessed with the Defense Mechanism Inventory (DMI; Ihilevich & Gleser, 1986). Participants were presented with 10 hypothetical dilemmas reflecting conflicts about topics including authority, sexuality, competition, and independence. In a forced-choice format, participants indicated which of five responses were most and least like themselves. The five responses each represented one of five clusters of defenses. The score for any one cluster may range from 0 to 80 but, because the sum of all five clusters must equal 200, the five scores are not independent. The five clusters of defenses are: Principalization (PRN: internalizing maneuvers such as intellectualization and rationalization); Reversal (REV: reality distorting defenses such as negation, denial, and repression); Turning Against the Self (TAS: intrapunitive maneuvers that direct aggression and criticism inward); Projection (PRO: unjustifiably attributing sinister intentions and negative qualities to others); and Turning Against the Object (TAO: directly or indirectly expressing aggression via displacement or acting out). Reliability and valid data are summarized in Cramer (1988) and Ihilevich & Gleser (1986).

Table 1
Hierarchical Regression of Informational Style Scores on Control and Defense-Mechanism Variable.

Predictor	Step 1	Step 2	Step 3	r
Variables	Beta	Beta	Beta	
Age	.22**	.17**	.14*	.21**
Sex	-.04	-.07	-.05	-.04
Diffuse-Avoidant Style		-.21**	-.17**	-.25**
Normative Style		.24**	.21**	.26**
Principalization			.20*	.32**
Reversal			.07	.29**
Turn Against Object			-.07	-.30**
Turn Against Self			.02	-.05
Increase in R ²		.10**	.08**	
Total Adjusted R ²	.05**	.15**	.23**	

Note: Sex = Dummy Variable with female participants coded 2, male participants coded 1. *p<.05; **p<.01

Identity Style. Identity style was assessed with the Identity Style Inventory (ISI-3; Berzonsky, 1992). On a 1 (Not at all like me) to 5 (Very much like me) Likert scale, participants rated the extent to which 30 statements characterized themselves. The ISI-3 provides continuous scores for each of the three styles: 1) normative style (9 items; e.g., "I prefer to deal with situations where I can rely on social norms and standards"); coefficient alpha was .60; and 2) diffuse-avoidant style (10 items: "It doesn't pay to worry about values in advance; I decide things as they happen"); coefficient alpha was .70; and 3) informational style (11 items; e.g., "I've spent a lot of time and talked to a lot of people trying to develop a set of values that make sense to me"); coefficient alpha was .68. Reported test-retest reliabilities (Berzonsky, 2003b) over a two-week interval (N=94) are: informational (.87); normative (.87); and diffuse-avoidant (.83). Validity data are provided in Berzonsky (1989, 1990, 2003b).

Results

Because the five defense cluster scores are not independent, to perform multivariate analyses one of the five scores needed to be excluded. Examination of the zero-order correlations between the style and defense mechanism variables revealed that neither projection nor turning against the self was significantly correlated with any of the style variables. Because a positive relationship between diffuse-avoidance and turning against the self had been hypothesized, it was decided to exclude projection from the analyses.

The data were analyzed with a series of hierarchical regression analyses in which each style variable served as the dependent variable. Sex and age were always entered on step 1 as control variables. Because of covariation between the style variables, the two style variables not being regressed were controlled on step 2. The four

defense-cluster scores were entered on step 3. The variables were centered and Sex x Defense Mechanism and Age x Defense Mechanism interactions were entered on step 4. The interaction terms did not account for a significant portion of the variance in any of the analyses and will not be considered. The regression analysis and zero-order correlations with an informational style as the dependent variable are presented in Table 1.

The zero-order correlations indicated that informational scores were correlated with age and three of the four defense clusters. As predicted, an informational style was positively associated with principalization, which comprises intellectual and rational defenses. It was also negatively correlated with turning against the object, which involves the direct or indirect expression of defensive aggression. Contrary to prediction, informational scores were also positively correlated with the reversal cluster of defenses that include denial, repression, and negation. A number of studies have reported a positive correlation between principalization and reversal (Ihilevich & Gleser, 1986), which may account for the Informational Style x Reversal correlation. In the present study, the correlation between these two defensive clusters was .50, $p < .01$. A hierarchical regression analysis of informational scores on the control and defense-mechanism variables (Table 1) indicated that age accounted about 5% of the total variation ($\underline{sr} = .215$). After the effects of the other two style variables were controlled, the defense mechanism variables accounted for an additional 8% of the variance. Only principalization made a unique contribution when the effects of the other variables were controlled.

The zero-order correlations (Table 2) indicated that normative scores were not correlated with either age or sex. As predicted, a positive correlation was found with reversal defensive scores. A negative correlation between normative scores and turning against the object also obtained. The hierarchical regression analysis revealed that neither age nor sex accounted for significant variation in normative

Table 2
Hierarchical Regression of Normative Style Scores on Control and Defense-Mechanism Variable.

Predictor	Step 1	Step 2	Step 3	
Variables	Beta	Beta	Beta	r
Age	.01	-.05	-.07	.01
Sex	-.04	-.03	-.02	-.02
Diffuse-Avoidant Style		-.03	-.03	-.07
Normative Style		.27**	.21**	.26**
Principalization			-.11	.08
Reversal			.20*	.23**
Turn Against Object			-.02	-.19**
Turn Against Self			.00	-.03
Increase in R ²		.07**	.03*	
Total Adjusted R ²	.00	.07**	.10**	

Note: Sex = Dummy Variable with female participants coded 2, male participants coded 1. *p<.05; **p<.01

Table 3
Hierarchical Regression of Diffuse-Avoidant Style Scores on Control and Defense-Mechanism Variable.

Predictor	Step 1	Step 2	Step 3	
Variables	Beta	Beta	Beta	r
Age	-.21**	-.20**	-.16*	-.22**
Sex	-.19**	-.16*	-.23**	-.18**
Diffuse-Avoidant Style		-.21**	-.19**	-.25**
Normative Style		-.03	-.01	.07
Principalization			.06	-.12*
Reversal			.14	-.10
Turn Against Object			.33**	.21**
Turn Against Self			.22**	.09
Increase in R ²		.04*	.05*	
Total Adjusted R ²	.07**	.11**	.16**	

Note: Sex = Dummy Variable with female participants coded 2, male participants coded 1. *p<.05; **p<.01

scores. After the effects of the other style variables were controlled, the defense-mechanism scores accounted for an additional 5% of the variation in normative scores. Consistent with predictions, only reversal scores uniquely explained significant variation in normative scores.

Both age and sex were significantly correlated with diffuse-avoidant scores. Consistent with previous research (Berzonsky, 1992; Soenens, Berzonsky, Vansteenkiste, Beyers, & Goossens, 2005), male participants had higher diffuse-avoidant scores than female participants. Younger participants had higher diffuse-avoidant scores than older participants. As predicted, turning-against-the-object scores were positively correlated with diffuse-avoidance; a negative but moderate relationship with principalization scores was found. The hierarchical regression analysis (Table 3) revealed that sex and age combined accounted for 7% of the variation in diffuse-avoidance. After the effects of the other style scores were controlled, the defense-mechanism cluster scores explained an additional 5% of the variance. Both turning against the object and turning against the self were uniquely correlated with diffuse-

avoidance. Thus, even though a significant zero-order correlation was not found, when the effects of the other variables were controlled, turning-against-the-self scores were positively associated with diffuse-avoidance.

Discussion

Identity Style and Defensive Mechanisms

The results are consistent with a social-cognitive interpretation of identity formation (see Berzonsky, 1990, 2002). Individuals who scored high on measures of different identity processing styles indicated that they relied on different types of defensive mechanisms when attempting to resolve inner conflicts and deal with perceived threats to the self. As predicted, an informational identity style was associated with complex cognitive defenses that enable individuals to deal with self-threats by distorting reality through cognitive reconstructions that reduce the personal significance of perceived threats. Such reinterpretations shift attention from personal specifics to more impersonal

abstract principles which, in turn, enable one to focus on ideas or events while repressing (at least temporally) their emotional significance (see Ihilevich & Gleser, 1986). As Ihilevich and Gleser (1986) note, principalization provides a means to rationalize and exert intellectual control over frustrating events and perceived threats to the self.

Also as hypothesized, a diffuse-avoidant style was uniquely related to more maladaptive defense clusters that involved either directing hostility and aggressive tendencies in an extrapunitive fashion (turning against the object) or directing it inward in an intrapunitive fashion (turning against the self). The defense maneuvers involved in turning against the object or blaming others and relying on aggression for defensive purposes, is consistent with findings that diffuse-avoidance is associated with an external locus of control, conduct disorders, and criminal behaviors (Adams et al., 2001; Berzonsky, 1990; White & Jones, 1996). When the other variables in the model were controlled, the cluster of defenses included in turning against the self was also found to uniquely predict diffuse-avoidance scores. This finding is in line with research indicating that diffuse-avoidance is related to negative emotional reactions including self-criticism, anxiety, and depressive reactions (Berzonsky, 1990, 2003a; Nurmi et al., 1997). Extrapunitive aggressive attacks (i.e., turning against objects) may enhance self-esteem by creating an illusion of strength or power (Ihilevich & Gleser, 1986). Therefore, it is possible that individuals with a diffuse-avoidant style who also have relatively high but unstable self-esteem rely on turning against the object to bolster or maintain self-esteem, whereas those with low self-esteem are more likely to turn aggression inward on themselves. This is a possibility that needs to be addressed in future research. Taken together, the findings indicate that maladaptive defensive maneuvers as well as maladaptive coping and decisional strategies (Berzonsky, 1992; Berzonsky & Ferrari, 1996) may contribute to the extent to which individuals with a diffuse-avoidant identity style are at risk for developmental difficulties and problem behaviors.

Also consistent with expectations, a normative identity style was found to be uniquely predicted by reversal scores, which reflect a cluster of relatively immature, maladaptive defenses that limit awareness by denying, repressing, or distorting reality. This finding appears to be in line with prior research linking a normative style with authoritarianism, prejudice, cultural conservatism, intolerance of ambiguity, need for structure, and need for cognitive closure (Berzonsky, 2002; Soenens, Duriez, et al., 2005). Individuals with a normative identity style appear to hold definite, inflexible core beliefs and values that are not open to evaluation or discrepant information (Berzonsky & Sullivan, 1992).

Defense Mechanisms and Other Identity Processes

Some previous research has also examined linkages between identity processes and defense mechanisms. In a series of studies Cramer (1995, 1997, 1998), for example, has explored relationships between defense mechanisms measured by TAT stories and identity status, which is associated with identity style. In her research, Cramer (1995, 1998) has generally reported that participants in the uncommitted identity statuses—i.e., moratorium and diffusion—were most likely to utilize maladaptive defenses such as denial and projection. Although we did not find significant correlations between projection and any identity style, the linkages between projection—e.g., attributing hostile feelings to others—and diffusion reported by Cramer appear to be in line with the association we obtained between diffuse-avoidance and turning against the object. Whereas turning against the object as measured by the DMI involves expressing hostility either directly or indirectly, projection may reflect attributions used to justify hostile acts or thoughts toward others (Ihilevich & Gleser, 1986). Individuals with high moratorium-status scores, however, have been found to utilize an informational identity style (Berman et al., 2001; Berzonsky, 1990; Berzonsky & Neimeyer, 1994; Schwartz et al., 2000), which we found was uniquely associated with the principalization cluster of defenses—e.g., intellectualization and rationalization—not denial or extrapunitive defenses. Also, Cramer (1995, 1998) did not find a positive relationship between denial and identity foreclosure, which is positively correlated with a normative identity style (Berman et al., 2001; Berzonsky, 1990; Berzonsky & Neimeyer, 1994; Schwartz et al., 2000). This finding also appears to conflict with the present results: a normative style was uniquely associated with the reversal cluster of defenses that included denial, negation, repression and so forth. There are several possible reasons for the apparent discrepancies between our findings and those of Cramer (1995, 1997, 1998), including differences in the operational measures of defense mechanisms and identity processes that were used. Also research indicates some covariation between the statuses included within the committed (foreclosure and achievement) and uncommitted (diffusion and moratorium) status categories. In the present investigation, covariation between the identity scores was statistically controlled in the analyses. Finally, even though identity style and status are correlated, they are not identical constructs. It may be that identity style scores reflect a more specific identity dimension that is related to defense mechanisms. This is a question that needs to be explored.

Whitbourne, Sneed, and Skultety (2001) examined relationships between defense mechanisms as measured by the Ihilevich and Gleser (1986) inventory and a measure of identity style. However, their sample was considerably older (Mean age = 59.58 years) than the present one (Mean age = 23.06 years) and the conceptualization and operational definitions of identity style they used differed

from those employed in the present study. Whitbourne et al. (2001) did not focus on the social-cognitive processes involved in constructing and reconstructing a sense of identity; they highlighted what they referred to as “cognitive-affective schemata that are already part of identity” (p. 31). A number of their findings appear to be at odds with the present results. For example, among male participants none of the Style x Defense Cluster correlations was significant. Nonetheless, at least among female participants, some of their findings appear to be in line with the present findings. For example, consistent with our results relevant to diffuse-avoidance, Whitbourne et al. (2001) found significant positive relationships between identity accommodation scores—which reflected personal instability and self-doubt—and turning against the self and turning against the object. Also, principalization was positively correlated with identity-balance scores, which appear to reflect an informed or at least an open and adaptive approach to identity conflicts. However, balance-style scores were also correlated with reversal scores, which are positively correlated with principalization (see Ihilevich & Gleser, 1986). Because Whitbourne et al. (2001) did not statistically control for covariation between these measures it is not clear whether both of these defense clusters were uniquely correlated with balance scores.

Cross-sectional Analyses

In the present study informational scores were positively correlated with age, whereas diffuse-avoidant scores were negatively correlated with age. However, because older participants in the present sample were 30- to 45-year-old adults who decided to attend university, it may be that they were more information oriented and less avoidant than adults who do not go back to school. That is to say, the Age x Style relationships that were found may reflect characteristics of the sample selected for the present study rather than general age-related developmental trends. Longitudinal data (preferably on several birth cohorts) are needed to determine whether these age differences reflect developmental changes.

Gender Differences

Although gender did not moderate the relationships between identity style and defense mechanism that obtained, male participants had higher diffuse-avoidant scores than female participants. This is a finding that has also been reported by Berzonsky (1992) and Soenens, Berzonsky et al. (2005). It is not clear why males would be more likely to utilize a diffuse-avoidant identity style than females. Some possible explanations that could be explored in future research include sex-role expectations and differences in parenting behaviors.

Conclusions

The findings add to a growing body of literature that highlights the role that social-cognitive processes may play in self-construction and identity formation. In particular, the present results suggest that individuals with different identity processing styles rely on different ego-defense mechanisms when confronted with perceived threats to the self. Individuals with high informational style scores tended to rely on complex defenses that function to control anxiety through intellectual efforts. Such maneuvers may be adaptive in that they enable individuals to become aware of the limitations of their behavioral efforts and to remain open to alternative possibilities (Ihilevich & Gleser, 1986). In contrast, individuals with high diffuse-avoidant scores were most apt to maladaptively externalize conflict via direct expressions of aggression or to turn that aggression on themselves. A normative identity style was uniquely associated with defenses that remove threatening thoughts and ideas from consciousness by distortion or denial.

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