Predicting identity styles and coping styles using self-rumination and self-reflection: A multivariate multiple regression analysis

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Abstract

Adaptive and maladaptive types of self-focus as well as identity styles and coping styles comprise opposite sides (internal or personal vs. external or situational). Given that, the present study tried to elucidate the predicting roles of self-rumination and self-reflection when confronting stressors or in solving identity-related problems. In conformity with hypotheses, hierarchical regression analyses of 400 people from Mashhad, Iran pointed out that, regarding identity measures rumination accounted for diffuse-avoidant style whereas reflection explained information-oriented style and commitment. With respect to coping styles, emotion-focused coping and problem-focused coping behaved reversely when it came to rumination and reflection. Some unexpected results in correlational analysis between identity styles and coping styles were also discussed due to cultural effects and current transition between generations.

Keywords: Identity Styles, Coping Styles, Self-rumination, Self-reflection

Introduction

Due to rapid social transformations and changes in lifestyle, the 20th century has been entitled ‘age of stress,’ and lately ‘age of coping’ (Endler, 1996). The concept of coping, defined as ‘constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the re-sources of the person’ (Lazarus and Folkman, 1984, p. 141). They categorized coping into two broad types (problem-focused and emotion-focused) and then Endler and Parker (1999) added the third one (avoidance). Problem-focused coping is task-oriented and the person tries to solve the problem by changing the situation or other alternative choices. In the meantime, emotion-focused coping is person-oriented and it aims at regulating emotional responses. Finally, avoidance coping is either task or person oriented in which distancing from the stressor is the main point (Endler and Parker, 1990a, 1999). Therefore, in complicated process of coping, external variables (such as life events) interact with internal variables (such as cognition, emotion and personality traits) in order to appraise threats and make a choice of proper coping (Folkman and Moskowitz, 2004; Endler and Parker, 1990b). Being interwoven with coping strategies, identity styles can also be affected by stressful situations in a long period of time (Berzonsky, 1992a).

Exploration and commitment have been introduced to be the two main components ofMarcia’s (1966) identity status paradigm in identity formation. While exploration accounted for the degree to search for variety of beliefs and values, commitment was defined as the devotion to those mentioned beliefs, goals and a set of convictions. Proposed by Berzonsky (1990), individuals use three identity styles to deal with identity formation issues in a social-cognitive process. In an active exploration, individuals using information-oriented style search out as well as evaluate self-relevant information. This style incorporates problem-focused coping (Berzonsky, 1992a) and needs for cognition (Ber-
Those with a normative style rely on norms, prescriptions and expectations of referent groups and significant others (e.g., parents or authority figures). Diffuse-avoidant people tend to delay identity related decisions until situational demands force them to act. They use emotional strategies to cope with problems as normative people do (Berzonsky, 1992a, 1993b) and at length, this style usually leads to a fragmented identity structure (Berzonsky, 1990).

Trapnell and Campbell (1999) distinguished between what might be ‘bad’ and ‘good’ types of self-focused attention (i.e., self-rumination vs. self-reflection). The ‘bad’ one was defined as a ‘neurotic category of self-attentiveness [identified by] recurrent thinking or rumination about the self prompted by threats, losses, or injustices to the self’ (p.292). On the contrary, the ‘good’ one was defined as an ‘intellective category of self-attentiveness [identified by] reflections on the self motivated not by distress about the self but by epistemic curiosity’ (p. 292). Both rumination and reflection are thoroughly distinct: Rumination is associated with higher levels of neuroticism whereas reflection is associated with higher levels of personal identity and openness to experience. Moreover, Berzonsky and Sullivan (1992) have indicated that there is a positive linkage between information-oriented style and self-reflection (including introspectiveness, personal identity, and openness to feelings and fantasy). Further research regarding identity styles and self-focus revealed that while self-reflection moderates the relation between information-oriented style and identity commitment, self-rumination moderates the association between information-oriented style and depressive symptoms (Luyckx et al., 2007). Complementing these findings, research by Berzonsky and Luycks (2008) highlighted three main results: First, information-oriented style was predicted by reflection. Second, there was no significant relationship between self-focus and identity commitment. Third, rumination positively predicted normative style as well as diffuse-avoidant style. Elaborating on this variable (self-focus), one more definition of rumination was specified by Nolen-Hoeksema et al. (2008) as recursive and passive reactions to distress and implications of it. Furthermore, rumination can be conceived as an emotional coping strategy (Skinner, et al., 2003) or rather maladaptive steady coping strategy (Nolen-Hoeksema, 1991) that may lead to weak problem-solving skills (Lyubomirsky and Nolen-Hoeksema, 1995; Lyubomirsky, et al., 1999; Watkins and Baracaia, 2002). Lastly, in Burwell and Shirk (2007) study, brooding and reflection components of self-focus were associated with maladaptive disengagement coping strategies and then adaptive primary and secondary coping strategies, respectively.

Taken together, the present study sought to examine the fundamental connections between (a) self-focus and coping styles as well as (b) self-focus and identity styles. In this regard, self-focus has been hypothesized as a variable that accounts for both positive and negative aspects of the self. Coping styles and identity styles also cover distinct dimensions of the self. Accordingly, consistent with previous findings (Burwell and Shirk, 2007; Berzonsky and Luycks, 2008; Luyckx et al., 2007), ruminative and reflective types of self-focus would be associated with internal versus external features of identity and coping.

**Methodology**

**Participants and procedure**

A total of 522 people from Mashhad, Iran, participated voluntarily in our study. Although the anonymity of respondents was thoroughly guaranteed and they were assured of confidentiality, 122 questionnaires were deleted due to missing data. Consequently, 400 people formed of 156 males and 244 females ranged from 23 to 60 years (mean [M] = 33.7 years, standard deviation [SD] = 8.6) filled out our forms including identity styles, coping styles and self-focus. Convenience sampling was used. Besides, individuals with low as well as high socioeconomic conditions were considered in order to reach a representative sample. They were also told that after completing the research, the results would be announced by their convenience. Statistical Package for the Social Sciences (SPSS) version 21 was practiced for analyzing the data.

**Measurements**

In this study, the Persian-translated version of each of three questionnaires was used. Firstly the practiced questionnaire was translated from English to Persian by the researchers and then back-translated by an expert and compared with the original one.

**Coping Styles.** The Coping Inventory for Stressful Situations (CISS; Endler and Parker, 1999) is a 48-item self-report questionnaire that assesses three types of primary coping including problem-
focused coping (e.g., ‘Focus on the problem and see how I can solve it’), emotion-focused coping (e.g., ‘Blame myself for not knowing what to do’) and avoidance coping (e.g., ‘Buy myself something’). Each style consists of 16 items and measured on a 5-point Likert scale ranging from 1 (not at all) to 5 (very much). According to Endler and Parker (1999), the internal consistency for the three subscales is adequate (alphas ranging from .82 to .89). For the present investigation, alpha estimates were above .80.

Identity Styles. The revised Identity Style Inventory (ISI-3; Berzonsky, 1989, 1992b) comprises 40 items that measure three information-oriented, normative and diffuse-avoidant identity styles and identity commitment. The ISI-3 scored on a scale ranging from 1 (not at all like me) to 5 (very much like me). Sample items include: ‘When making important decisions, I like to have as much information as possible’ (information-oriented style); ‘I’m more-or-less always operated according to the values with which I was brought up’ (normative style); ‘Many times, by not concerning myself with personal problems, they work themselves out’ (diffuse-avoidant style); and ‘I know what I want to do in the future’ (ISI commitment). Estimates of internal consistency were as follows: information-oriented style, .70; normative style, .65; diffuse-avoidant style, .73; and identity commitment, .61. Although Cronbach’s alphas in the present sample were rather modest, they were thoroughly comparable with coefficients reported by Berzonsky (1989, 1992b). Test-retest reliabilities were also described by Berzonsky (2003) in a period of two weeks: information-oriented style, .87; normative style, .87; and diffuse-avoidant style, .83.

Self-focus (Rumination vs. Reflection). The 24-item Self-rumination-Self-reflection Questionnaire (RRQ; Trapnell and Campbell, 1999) assesses ruminative and reflective types of private self-consciousness with scales of 12 items each. Responses were measured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Examples of rumination and reflection are ‘Sometimes it is hard for me to shut off thoughts about myself’ and ‘I love analyzing why I do things’ respectively. Cronbach’s alphas (.90 for rumination and .91 for reflection) were reported by Trapnell and Campbell (1999). In the current study, the internal consistency coefficients were .80 for rumination and .75 for reflection.

Results

Regression and correlational analyses

Bivariate correlations, means and standard deviations of all variables can be found in Table 1. As expected, self-rumination was positively related to information-oriented style as well as emotion-focused coping and negatively related to problem-focused coping. Self-rumination and self-reflection were slightly interrelated. While diffuse-avoidant style was negatively associated with self-reflection, information-oriented style, normative style, identity commitment and problem-focused coping were positively associated with self-reflection. Unlike previous research, surprisingly, information-oriented style was positively correlated with all of coping styles, and normative style was related to problem-focused coping. Finally, people scoring high on diffuse-avoidant style show high emotion-focused as well as avoidance coping.

Table 1. Pearson correlations, means, and standard deviations

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Self-rumination</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>39.78</td>
<td>8.220</td>
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<tr>
<td>2</td>
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<td>.180”</td>
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<td></td>
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<td></td>
<td></td>
<td>39.99</td>
<td>7.123</td>
</tr>
<tr>
<td>3</td>
<td>Information-oriented style</td>
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<td>.359”</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>34.25</td>
<td>6.384</td>
</tr>
<tr>
<td>4</td>
<td>Normative style</td>
<td>.028</td>
<td>.200”</td>
<td>.536”</td>
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<td></td>
<td></td>
<td></td>
<td>29.90</td>
<td>5.452</td>
</tr>
<tr>
<td>5</td>
<td>Diffuse-avoidant style</td>
<td>.078</td>
<td>-.226”</td>
<td>.111”</td>
<td>.059</td>
<td></td>
<td></td>
<td></td>
<td>25.78</td>
<td>6.492</td>
</tr>
<tr>
<td>6</td>
<td>Identity commitment</td>
<td>-.030</td>
<td>.351”</td>
<td>.463”</td>
<td>.563”</td>
<td>-.194”</td>
<td></td>
<td></td>
<td>36.23</td>
<td>6.014</td>
</tr>
<tr>
<td>7</td>
<td>Problem-focused coping</td>
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<td>.225”</td>
<td>.519”</td>
<td>.445”</td>
<td>-.025</td>
<td>.451”</td>
<td></td>
<td>52.21</td>
<td>10.498</td>
</tr>
<tr>
<td>8</td>
<td>Emotion-focused coping</td>
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<td>-.020</td>
<td>.129”</td>
<td>.038</td>
<td>.247”</td>
<td>-.189”</td>
<td>-.162”</td>
<td>44.77</td>
<td>11.323</td>
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<td>9</td>
<td>Avoidance coping</td>
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<td>.057</td>
<td>.167”</td>
<td>.078</td>
<td>.237”</td>
<td>-.040</td>
<td>.133”</td>
<td>.159”</td>
<td>39.17</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01.
To be assured of the unexpected results, a multivariate multiple regression analysis was conducted in order to predict coping styles from identity styles. Likewise, the same results have been observed which will be discussed later (table 2).

Table 2. Multivariate multiple regression

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>Problem-focused Coping</th>
<th>Emotion-focused Coping</th>
<th>Avoidance Coping</th>
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</thead>
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<tr>
<td>Information-oriented Style</td>
<td>.352**</td>
<td>.204**</td>
<td>.176**</td>
</tr>
<tr>
<td>Normative Style</td>
<td>.146**</td>
<td>.090</td>
<td>.027</td>
</tr>
<tr>
<td>Diffuse-avoidant Style</td>
<td>-.034</td>
<td>.160**</td>
<td>.196**</td>
</tr>
<tr>
<td>Identity Commitment</td>
<td>.199**</td>
<td>-.303**</td>
<td>-.098</td>
</tr>
<tr>
<td>R^2</td>
<td>.339**</td>
<td>.126**</td>
<td>.082**</td>
</tr>
</tbody>
</table>

**p < .01.

Hierarchical regression analyses

On account of covariation between identity styles and controlling the effects of age and gender to catch the unique contributions of these measures, hierarchical regression analysis is performed to examine the variations in identity styles. At first, age, gender and the other identity styles except for practiced dependent style were entered as control variables on step 1. Then, on step 2, main effects of self-rumination and self-reflection were investigated. To calculate four interactions between controlled variables and self-focus, all of the independent variables (three identity styles) were centered that is subtracting the mean of the variable from each score (Jaccard & Turrisi, 2003). Finally, interactions including self-rumination age, self-rumination gender, self-reflection age and self-reflection gender were introduced on step 3. None of the interactions were significant, so they were not considered in discussion (table3). Apart from controlling the identity styles, the same pattern was put into practice for the rest of dependent variables (identity commitment and coping styles) that can be seen in table 4.

Table 3. Hierarchical regression analyses - predicting identity styles using self-focus

<table>
<thead>
<tr>
<th></th>
<th>Information-oriented Style</th>
<th>Normative Style</th>
<th>Diffuse-avoidant Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predictor Variables</td>
<td>Step1</td>
<td>Step2</td>
<td>Step1</td>
</tr>
<tr>
<td>Age</td>
<td>.034</td>
<td>.014</td>
<td>-.029</td>
</tr>
<tr>
<td>Gender</td>
<td>.030</td>
<td>.010</td>
<td>-.072</td>
</tr>
<tr>
<td>Information-oriented style</td>
<td>-----</td>
<td>-----</td>
<td>.536**</td>
</tr>
<tr>
<td>Normative style</td>
<td>.534**</td>
<td>.470**</td>
<td>-----</td>
</tr>
<tr>
<td>Diffuse-avoidant style</td>
<td>.081</td>
<td>.141**</td>
<td>-.004</td>
</tr>
<tr>
<td>Self-rumination</td>
<td>.077</td>
<td>.058</td>
<td>.103*</td>
</tr>
<tr>
<td>Self-reflection</td>
<td>.282**</td>
<td>.027</td>
<td>-.317**</td>
</tr>
<tr>
<td>ΔR^2</td>
<td>.296**</td>
<td>.085**</td>
<td>.294**</td>
</tr>
</tbody>
</table>

Dummy codes: male = 2, female = 1, *p < .05. **p < .01.
In the case of identity styles (table 3), no age or gender differences could be seen. Information-oriented style was positively predicted by self-reflection that accounted for 8.5% of variation. In conformity with previous research (e.g., Berzonsky and Luycks, 2008; Berzonsky, 1992a), exploring inner self is not satisfactory for normative people, but neither self-rumination nor self-reflection predicted normative style. Whereas rumination described diffuse-avoidant style positively, reflection explained it negatively. Indeed, almost 9% of inner indices variations were observed in diffuse-avoidant style.

In table 4, only women in problem-focused coping scored higher than their male counterparts. Both of identity commitment and problem-focused coping were positively associated with self-reflection and negatively associated with self-rumination. In the same way, the reverse pattern occurred to emotion-focused coping. Regarding R squares, inner indices accounted for the greatest variation of 24.9% in emotion-focused coping and the second greatest variation of 13.3% in identity commitment. Ultimately, self-focus did not explain any variations in avoidant coping. To be certain about identity commitment variable, a procedure like table 3 was performed and identity styles were controlled for. The same result as table 4 was achieved concerning this analysis.

**Discussion and conclusions**

The present study was aimed at further delineate the relationship between inner vs. outer aspects of self-related issues including self-focus, identity styles and coping styles. Because of the consequential role of unexpected findings in our research, main arguments related to hierarchical regression and results which represent unexpected findings should be addressed separately.

**Identity styles and coping styles, a cultural outlook**

In correlational and confirming multivariate multiple regression methods, information-oriented style described all types of coping styles. Interestingly, normative style also had a positive relationship with problem-focused coping. In this regard, in order to clarify the outcome, we need to explain some basic principles. Based on Iranian society, respecting elderly and complying with their instructions have been great traditions for decades. Besides, investigating cultural roots in national identity literature has shown that identity and culture are closely intertwined (Liebkind, 1992; Shweder, 1991). This means while information-oriented individuals are reproved for their curiosity and exploring too much, normative people following the rules are quite accepted in our society. On the other hand, due to modernity and technological advances the new age is going through some evolutionary transitions from being a traditional to a modern society. Additionally, strongly has been affected by such alterations, community gradually has turned into a child-driven society which has led to some overlaps among all coping styles. Similarly, in Iran other researchers like Piri and Shahraray (2005) announced the same results related to information-oriented style and normative style. Considering normative style, they argued that people scoring high on normative style may internalize authority figures’ coping style which is

<table>
<thead>
<tr>
<th>Predictor Variables</th>
<th>Step1</th>
<th>Step2</th>
<th>Step1</th>
<th>Step2</th>
<th>Step1</th>
<th>Step2</th>
<th>Step1</th>
<th>Step2</th>
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</thead>
<tbody>
<tr>
<td>Age</td>
<td>.067</td>
<td>.061</td>
<td>.019</td>
<td>.024</td>
<td>.061</td>
<td>.018</td>
<td>.038</td>
<td>.037</td>
</tr>
<tr>
<td>Gender</td>
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<td>-.050</td>
<td>-.088</td>
<td>-.111*</td>
<td>-.042</td>
<td>-.022</td>
<td>.036</td>
<td>.032</td>
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<tr>
<td>Self-rumination</td>
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<td>-.174**</td>
<td>.509**</td>
<td>-.013</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-reflection</td>
<td>.371**</td>
<td>.264**</td>
<td>-.111**</td>
<td>.055</td>
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<td></td>
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<td>ΔR²</td>
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<td>.008</td>
<td>.083**</td>
<td>.005</td>
<td>.249**</td>
<td>.003</td>
<td>.003</td>
</tr>
</tbody>
</table>

Dummy codes: male = 2, female = 1, *p < .05. **p < .01.
problem-focused coping. In that case, normative people precisely simulate what those significant referent groups do when confronting with stressful situations. Apart from that, normative individuals possibly idealize this kind of coping (problem-focused coping) rather than reflecting their real coping style.

As anticipated, in harmony with previous works (Berzonsky, 1992a; Berzonsky and Ferrari, 1996; Piri and Shahraray, 2005), people using diffuse-avoidant style scored high on emotion-focused coping and avoidance coping. This group of people delay and procrastinate facing identity-related situations as long as possible. In the same way, they act impulsively just concerning pleasure and short-term solutions like avoidance (Berzonsky, 1994), so the proper way of dealing with stressful events is avoiding them or seeking emotional support. At last, identity commitment was positively and negatively connected to problem-focused and emotion-focused coping in the order given (Berzonsky, 1990, 1992a). Reasonably, it seems while high commitment in information-oriented and normative people (Berzonsky, 2003, 2008) leads to adaptive coping, low commitment in diffuse-avoidant individuals (Berzonsky, 2003, 2008) accounts for emotional solutions.

To be more specific about variations in results, since our study covers two or even three generations of different people, the age range can be limited to avoid overlaps in correlation analysis. In addition, extremely influenced by culture and ethnicity, further research in different regions or other countries would be beneficial to reach an integrated approach.

**Predicting internal vs. external aspects of styles using self-focus**

When the effects of covariation between identity styles were controlled for, self-reflection positively anticipated information-oriented style and negatively anticipated diffuse-avoidant style. Rumination also accounted for diffuse-avoidant style and in the end, self-focus could not describe normative-style. Given such findings, reflection is a way of exploring all features of the self in an efficient manner which is directing to adaptive self-knowledge (Trapnell and Campbell, 1999), self-regulated behavior, problem solving (Martin and Tesser, 1996; Jakubowski and Dembo, 2004), self-criticism and self-evaluation (Carver, 2003; Duval and Silvia, 2001). Along with such witness, it sounds information-oriented style is totally conceivable. Berzonksy and Luyckx (2008) also found coherent results. In line with cultural interpretation, normative people may copy the same manner of acting as prominent persons do, so they do not involve themselves in self-exploration tasks even if they are positive or negative in nature. This finding was contradicted with Berzonsky and Luyckx (2008) study that normative individuals were preoccupied with rumination. In agreement with earlier investigations (e.g., Berzonsky and Luyckx, 2008), being diffuse-avoidant is advantageous for rumination and detrimental for reflection. Although it seems this group does not tend to analyze inner self, they were quite unsuccessful about ruminative part. Considering this, procrastinating too much or avoiding fundamental issues may eventually force diffuse-avoidant people to ruminate or in other words, worry about some inevitable matters.

In the second hierarchical analysis, self-rumination and self-reflection acted reversely when it came to problem-focused and emotion-focused coping that is, rumination negatively and reflection positively predicted both of problem-focused and emotion-focused coping. Identity commitment followed the same pattern as problem-focused coping did. No significant relationship was observed regarding avoidance coping style. To begin with, identity commitment’s results were contradicted with previous research (Berzonsky and Luyckx, 2008; Luyckx et al., 2007) as they did not find any significant association between commitment and self-focus. In correlational analysis, people scoring high in believing in some rules or convictions, whether effortless or with more effort (Berzonsky, 2003), were related to reflection and problem-focused coping; therefore, high commitment had positive consequences like adaptive coping strategies and internal enhancing exploration. With relation to regression analysis, while evaluative, regulative and critical self-exploration promotes commitment, repetitive destructive thoughts may weaken the commitment. As foreseen, loads of earlier research (e.g., Skinner, et al., 2003; Nolen-Hoeksema, 1991; Burwell and Shirk, 2007) supported our coping findings in diverse points of view. Reflection not only strengthens seeking out effective ways of dealing with stressors but also undermines emotional responses like wishful thinking, blaming and denying. Despite reflection path, rumination directs in an opposite way.
References


