Using the Identity Processing Style Q-Sort to examine identity styles of Turkish young adults

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Abstract

This paper reports on two studies with Turkish young adults that used the Turkish version of the Identity Processing Style Q-Sort (IPSQ). The IPSQ is based on Berzonsky's informational, normative, and diffused identity styles. Participants sort descriptors of the styles into columns ranging from most to least like them. Patterns in Turkish young adults' identity styles were examined in the first study. The construct validity of the IPSQ-Turkish version based on associations between the IPSQ and measures of cultural orientation, self-definitions, self-concept clarity, self-esteem, and coping was tested in the second study. Results of the first study were consistent with the current literature in terms of a negative correlation between informational and diffuse/avoidant styles, and a relatively weaker relationship between informational and normative styles. Support for the construct validity of the Turkish version of the IPSQ was found in the second study, with results consistent with other IPSQ research.
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Keywords: Identity styles; CIQ; Turkish young adults; Coping; Self-esteem; Self-concept clarity; Self-definitions; Cultural orientation

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Introduction

Berzonsky (1989) conceptualized a process-oriented model of identity formation, 'Identity Styles,' which emphasizes individual differences in adolescents and young adults' approaches to identity formation. A style is a social-cognitive process or strategy used to deal with identity conflict, as well as with daily life experiences (Soennens, Berzonsky, Vansteenkiste, Beyers, & Goossens, 2005). According to this model, a sense of identity is formed through cognitive construction of self as experienced in interaction with the physical and social environment (Berzonsky, 1993a). This explanation of process emphasizes two important aspects of the model, one is defining the individual as active, and the other is the impact of the environment. Individuals actively decide on their choices about who they think they are, selecting from environmentally constrained alternatives. Individual differences occur in the ways young adults make those choices (Brandstadter, 1998). In other words, individuals differ in identity exploration processes based on the strategies they dominantly use (Berzonsky, 1992, 1993b; Berzonsky, Macek, & Nurmi, 2003).

Berzonsky (1989, 1992, 1993a, 2003, 2004) defines three styles that describe particular sets of strategies. *Informational style* entails active exploration, elaboration, and evaluation of relevant information before making decisions. This style incorporates high self-exploration, need for cognition, cognitive complexity, openness to new information and experience, and problem-focused coping. Information-oriented young adults are skeptical about their self-constructions; when they face incongruence about themselves, they are open to reconstructing their identities. They are autonomous, emphasize personal (rather than relational and collective) self-definitions, and are more likely to have a well-differentiated and integrated sense of personal identity. They also are self-confident about their judgments, proactive, and high on personal expressiveness. This style has been found to be positively associated with Marcia's identity moratorium and achievement statuses where exploration is high and commitment is either low or high (Berzonsky & Kuk, 2000).

In contrast, *normative style* involves reliance on prescriptions, standards, and expectations of significant others or socially respected groups to make decisions. This style has been validated by positive correlations with the foreclosed status, where individuals are more likely to make commitments without engaging in an active exploration process (Berzonsky & Kuk, 2000). High need for structure, intolerance of ambiguity, cognitive closure, a tendency to be closed to threatening information, and holding rigidly organized commitments are characteristics of this style. Normative-oriented young adults are assumed to have stable self-conceptions, as well as collective self-definitions. They also are high on cultural conservation, and seek social support or use emotional strategies to cope with problems (Berzonsky, 1992, 1993b).

Finally, *diffuse/avoidant style* represents reluctance to deal with identity issues, and the avoidance of identity conflict. This style has been associated with diffused status in which there is a low tendency to deal with identity issues. The diffuse/avoidant style is described by limited self-awareness, maladaptive decision making strategies, emotionally-focused avoidant coping, high responsiveness to situational demands, and other-directedness (Berzonsky, 1989, 1992; Berzonsky, Nurmi, Kinney, & Tammi, 1999; Nurmi, Berzonsky, Tammi, & Kinney, 1997). Diffused-oriented young adults are presumed to make context specific, situational accommodations, without having consistent and integrated identity standards.

Past studies examining identity styles have used the Identity Styles Inventory (ISI: see Berzonsky, 1989, 1992, 1993a for more information about development of and refinements to the measure). The ISI-III (Berzonsky, 1992; 1997) is a 40-item measure with a Likert-type response scale. It consists of four subscales, one for each style and a fourth subscale measuring commitment. The validity of this measure has been supported by correlations with measures of identity status as well as with other scales measuring constructs theoretically related to identity styles. However, the ISI-III has limitations. The measure includes some identity domains (i.e., relationships, religion, and ideology), but not others (e.g., career, family, and sex roles). Although some items focus on domains, other items are more general and domain-free, such that they ask about general problem solving strategies (Vleioras, 2007). In addition, the ISI does not fully capture one's current identity style because the items are not consistently phrased in terms of ongoing actions. Some items refer to the use of identity styles in the past, whereas other items refer to the use of identity styles in the present. Finally, the ISI-III does not permit the assessment of the relative importance of different strategies and beliefs applied to the identity formation process. According to Berzonsky (1990), by adulthood most individuals are capable of using all of the identity styles, however a person tends to use one style more frequently and widely than the other two styles. Relative importance of a style cannot be fully interpreted from the ISI because of its response scale where individuals rate each item independently of other items. In order to examine style preferences, past research with the ISI has used categorical scores, where individuals were grouped based on their highest score.

In an effort to expand the tools available for assessing identity processing styles and to increase the ability to capture the complexity of individuals' conceptualization of their orientation to identity work, the Identity Processing Styles Q-Sort (IPSQ) was developed and tested with multiple samples of American college students (Pittman, Kerpelman, Lamke, & Sollie, in press). Validity of the IPSQ was established through showing moderate correlations with the ISI-III and with the measures of other related constructs. The IPSQ measures identity processing according to current, ongoing actions/beliefs, and (by adjusting the instructions to the respondent) can be used to assess identity style generally or in terms of a specific identity domain or situational context (Pittman et al., in press). Another major difference between the IPSQ and the ISI is that the ISI suggests three styles and uses either one's highest style score or a z-score transformation to determine a person's dominant style. In contrast, the IPSQ shows that the informational and diffuse/avoidant styles are opposite aspects of a single dimension (consistent with Erikson's theorizing, 1968), and thus creates two continuums one for the informational and diffuse/avoidant dimension (where the higher end of this continuum represents greater use of the informational style and the lower end of this continuum represents greater use of the diffuse/avoidant style) and the other for the normative dimension. The criterion sorts were developed based on a team of 12 identity scholars located within and outside of the United States (see Pittman et al., in press).

In both the ISI and the IPSQ, styles are conceptualized as orientations that predict decision-making and coping strategies one uses to adapt to the environment. Although identity formation efforts increase during adolescence, they become more focused during late adolescence and early adulthood as individuals make transitions into new roles and contexts. Stylistic preferences depend on motivational factors, as well as environmental and situational demands or expectations. Berzonsky (1993b) further theorizes that an individual's values, ideas, and assumptions about the life and reality influence style preferences in a developmental context.

Environment, on the other hand, provides information about alternatives young adults have and feedback about the decisions they make. Changes in demands and/or expectations of the environment are likely to affect identity process (Kerpelman, Pittman, & Lamke, 1997). Moreover, the social-historical characteristics of a given culture are likely to influence which style is more adaptive (Berzonsky, 1993b). Theoretically, it is proposed that in stable traditional environments, the socially-determined normative style may be more functional, whereas in cultures where personal values are more emphasized, an informational style would be more adaptive. Part of this hypothesis has been examined through several studies conducted by Berzonsky and his colleagues using Western samples (e.g., North American and Finnish samples; Berzonsky et al., 1999, 2003; Nurmi et al., 1997). In these samples, informational style has been shown to be more adaptive than normative or diffuse/avoidant styles. Further research is needed to investigate whether it is the case in non-Western samples. In this regard, one aim of the current study was to examine the identity styles of Turkish young adults residing in Turkey where the cultural context is more traditional and collectivistic in comparison to Western cultures, but also shows evidence of Westernization in some of its larger cities (Carpenter & Karakitapoglu-Aygun, 2005). Specifically, identity processing orientations based on Berzonsky's identity style model using the newly developed IPSQ measure were explored in two samples of Turkish college students.

Turkish culture

In Turkey, a secular Islamic country, the culture can be described as traditional, authoritarian, and collectivistic with variations across urban and rural areas (Cakir & Aydin, 2005). In general, there is an emphasis on interpersonal relationships; being close to relatives and neighbors is very important (Kagitcibasi, 1996; Karakitapoglu-Aygun, 2004). The family system in Turkey is based on group ties, accountability, loyalty, interdependence, duties, and obligations (Okman-Fisek, 1982). Compared to American families, Turkish families are more authoritarian (Taylor & Oskay, 1995), and youth are expected to live with their parents until they get married or move to another city to study or work. Many parents feel a high level of responsibility for their children, even after their children's transition to adulthood (Kagitcibasi, 1992).

Current research shows that Turkey has been undergoing a social change since the 1980s (Karakitapoglu-Aygun, 2004). Current trends can be described as a co-existence of traditional, collectivistic cultural values and individualistic values (Imamoglu, 1998, 2003). In relation to this change, child socialization in Turkey combines task-related independence (e.g., making one's own decisions) with emotional dependence (e.g., relatedness) (Imamoglu, 1998; Kagitcibasi, 1995; Mocan-Aydin, 2000). Furthermore, Kagitcibasi (1995, 1996) notes that the Turkish family system supports a combination of autonomy and relatedness, with variation based on parents' residential background and level of education. In other words, the population in Turkey is collectivistic, however some groups, especially the more educated, urban groups, have become more oriented toward individualism than other groups have (Imamoglu, 1998, 2003). These competing expectations are especially influential on young adults attending university, where the university environment provides more individualistic values compared to the family environment (Kumru & Thompson, 2003). It can be argued that the university environment combined with the

environment of the broader Turkish culture provides both traditional and Western values for Turkish young adults. Turkish young adults who are attending university would be likely to incorporate both traditional and Western orientations when addressing identity issues.

To date, the limited research that has been conducted on identity formation of Turkish youth focuses on identity statuses/styles and parental attitudes. The only study (Celen & Kusdil, 2006) conducted with college students using the ISI generally showed similarities with the findings of studies with American college students in terms of associations among styles, and style associations with demographic differences.

Overview of the current studies

Two studies were conducted with Turkish college students to examine identity processing styles employing a survey method. Samples were drawn from a cultural context that differs from the Western samples that dominate the identity formation literature. In the first study, identity processing styles, measured by the IPSQ (Pittman et al., in press), and variation in these styles according to demographic variables were explored. To test further the validity of the IPSQ with Turkish young adults, the second study replicated the findings of the first study, and explored associations between identity styles and correlates of identity styles that have been examined previously in samples of American college students.

Norenzayan and Heine (2005) offer a conceptual framework to guide the investigation of universal versus culture-specific aspects of psychological constructs through empirical analysis. According to the authors, conducting an analysis across two divergent contexts is more likely to strengthen the generalizability of the constructs being examined. Although the current studies do not have a cross-national design, comparing the patterns of results in the current studies with results of other studies that have used the IPSQ and the ISI will offer some initial steps toward the generalizability of identity styles across different cultural contexts. Almost all studies using the ISI and the few studies that have tested the IPSQ have focused on American college samples. This study takes one step toward expanding the IPSQ by testing it in two Turkish college samples. Although the Turkish samples are similar to American samples in terms of the university setting, the youth live in a non-Western country and are influenced by both Western and non-Western values.

Summary of study aims and contributions

The current studies make multiple contributions to the identity styles literature. First, they offer a validation of the IPSQ with a Turkish sample of young adult college students, a sample that shares both similarities and differences with U.S. college samples. Second, the first study demonstrates patterns of Turkish young adults' identity styles in terms of both personal (such as age and gender), and parental (such as parent education and residential background) factors. Third, the second study investigates whether the normative style is as functional and adaptive as the informational style in a more traditional national context. Fourth and finally, the second study tests empirically the assumptions that informational style incorporates individualistic values, whereas the normative style emphasizes relational and collectivistic values.

Study 1

The first study examined patterns in Turkish young adults' identity style preferences using the IPSQ, taking into consideration variation according to gender, age, residential background (urban versus rural), and parent education. Hypotheses were developed primarily on the findings of the prior studies that have used the IPSQ; however, studies that employed the ISI also were included given the moderate association between these two measures of identity styles (Pittman et al., in press).

Using the ISI, Celen and Kusdil (2006) found a negative correlation ($r = −.27$) between informational and diffuse/avoidant styles in a Turkish sample. This association is consistent with correlations found in other studies that have used the ISI ($r = −.26$ in Berzonsky, 1992; $r = −.29$ in Nurmi et al., 1997). The correlation of the informational and diffuse/avoidant style using the IPSQ with American samples has been strong and negative ($r = −.92$ in Pittman et al., in press), suggesting the styles are virtually polar opposites. Thus, in this study we also expect to find a moderate to strong negative correlation between informational and diffuse/avoidant styles. The association between informational and normative styles was found to be negative and moderate when the styles were measured by the IPSQ in American samples ($r = −.22$, and $−.38$ for two samples in Pittman et al. in press), but was non-significant in American samples or positive and small in Turkish samples ($r = .09$ in Celen & Kusdil, 2006) when styles were measured by the ISI. In the present study, we anticipated finding a modest positive correlation between informational and normative styles; Turkish youth might show a preference for using both informational and normative styles when addressing identity issues. Pittman et al., using the IPSQ with an American sample, found that 15% of the sample was high in the use of both informational and normative styles; this percentage is expected to be higher in Turkish young adult samples. Lastly, the relation between normative style and diffuse/avoidant style has been non-significant across studies in American, Finnish, and Turkish samples (Berzonsky, 2005; Celen & Kusdil, 2006; Li, 2005; Nurmi et al., 1997; Pittman et al., in press). Thus, we expect a non-significant association between normative and diffuse/avoidant styles.

With respect to gender differences, studies that have used the ISI with American, Belgian, and Turkish samples and the IPSQ with American samples consistently showed that males scored higher on diffuse/avoidant style and lower on informational style than females did (Berzonsky, 1992; Celen & Kusdil, 2006; Pittman et al., in press; Soennens et al., 2005). A significant sex difference for normative style was found only in one study, and the styles were measured by the ISI (Pittman et al., in press); however, generally, no sex differences were found for normative style when measured with the ISI or the IPSQ. We expect to find similar results in the current study.

Identity styles also are expected to vary according to the level of parental education. Celen and Kusdil (2006) found when the level of parental education was lower, the likelihood of using the normative style was higher. This finding is consistent with the cultural variations among different SES and education groups in Turkey. Also studies examined urban/rural background in various countries such as Australia, Finland, and Turkey show that having an urban background also is expected to increase the likelihood of using an informational style, whereas having a rural background is expected to decrease the likelihood of using an informational style (Celen & Kusdil, 2006; Nurmi, Poole, & Kalakoski, 1996). Thus, we hypothesized significant differences in identity

styles based on parent education, and residential background. Age differences are not anticipated. Although age may be important in early and middle adolescence when the individuals are still in the process of constructing their approach to identity issues, once late adolescents have made their preferences, the style used is expected to be stable.

Method

Participants

The sample consisted of 371 college students attending a university in Istanbul, which is the metropolis of Turkey. The university life can be characterized as more Western in style in comparison to other regions of Turkey, such that the formal language is English, and there are more flexible rules on this campus compared to other university campuses (e.g., dormitory regulations).However, the university experiences of these students still reflect a combination of both Western and traditional values. Participants were recruited through announcements made in the courses of Faculty of Education. The majority of students in the Faculty of Education come from other cities (only 10 students in this sample stated that their parents are living in Istanbul). It also is very common that Faculty of Education students prefer to live on campus because dormitories are financially manageable and easy to access, which are important factors for students in an expensive city where transportation can be a problem. Fifty-nine percent of the sample was female, and the mean age of the sample was 21.68 (SD = 1.56). Although the age of participants ranged from 17 to 26, almost 80% was between 20 and 24 years of age. In terms of residential background, 50.9% of the participants had a rural background, whereas 24.8% had an urban background. Ten percent of the sample reported that they had a mixture of rural and urban characteristics in their residential backgrounds (15% did not report on residential background). Mothers' and fathers' education levels showed variation. Approximately, half of the mothers had some primary school education[1] or they were a primary school graduate (42.6% and 14%, respectively). On the other hand, 29.1% of fathers either attended primary school but had not graduated or were primary school graduates. Eighteen percent of mothers were high school graduate, whereas 15% of fathers had high school degree. Only 1.3% of the mothers were college graduates, and 2.7% of them had some college education; 21.6% of the fathers had a college degree, and 7.3% attended college but did not graduate. The remaining parents reported other kinds of education, such as graduation from technical school.

Measures

Demographic information form. The participants completed a demographic information form that included questions about their gender, age, where their parents live (i.e., residential background), and parent education. For the residential background variable (urban/rural), participants were asked to state whether their parents were from urban versus rural backgrounds separately for their mothers and fathers. For the purpose of the present study,

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[1] Primary school education in Turkey was a five-year compulsory education which is given free of charge in public schools; it was increased to eight years in 1997, and is similar to elementary education in the USA.

a categorical variable with three groups was calculated: an urban group, if both parents had urban backgrounds; a rural group, if both parents had rural backgrounds; and a mixed group, if parents had different residential backgrounds. In terms of parent education, continuous parent education variables for mothers and fathers were created using an eight-point scale ranging from primary school to higher levels of education up to a doctorate or the equivalent. Higher scores indicate higher levels of education. For the purpose of the current study, each participant's mother and father education scores were averaged.

Identity styles. The Identity Processing Styles Q-Sort (IPSQ; Pittman et al., in press) was used to assess the identity styles of the participants. This measure of identity processing style is based on Berzonsky's (1989) theoretical conceptualization of identity styles. Specifically, the IPSQ measures how descriptive the informational, normative, and diffuse/avoidant identity styles are for the respondent. It has a test-retest reliability of .71 (Pittman et al., in press). The IPSQ contains a total of 60 short sentences (one sentence per card), such as 'My future is something I think about a lot,' 'I am not concerned about finding out who I am right now,' 'A lot of what influences me in life comes from what my friends think I should do.'

The IPSQ[2] offers an alternative to the typical survey format. Q-Sort methodology requires that participants read descriptions of the different styles on cards and then place the cards in a forced distribution that ranges from most to least like the participant. Each participant's sort is transposed and then correlated with each of the three criterion sorts, one for each style, that were developed with the assistance of 12 established identity scholars (see Pittman et al., in press). Higher correlations indicate greater use of a given style. The correlation coefficients become the scores of the individual for each of the three styles.

Procedure

Prior to data collection, the IPSQ was translated into Turkish using a two step procedure. First, four graduate students who were native speakers of Turkish and fluent in English translated the IPSQ items into Turkish. Two of the graduate students were in the U.S., and the other two lived in Turkey. Two of the students (one from each location) were studying in psychological counseling programs, and the other two students (one from each location) were in engineering programs.

Before translation of the IPSQ, the graduate students were told that each item describes something about a person, and that they should try to translate each English statement in a way that would have similar meaning in Turkish, instead of direct translation. For the next step, the first author translated each item back into English, comparing the translations of all four of the Turkish graduate students. This back translation was then discussed with the second author, one of the developers of the IPSQ. This discussion ensured that the items translated into Turkish had the same conceptual meaning as the original English items.

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[2] Q-Sort methodology also can be used to assess subjective views on a phenomenon of interest. In this case, q-factor analysis is used to derive different ways of thinking in the group. However, for the IPSQ, criterion sorts were developed because this instrument's construction and application are both theory-driven. For more information about the rationale and steps involved in the construction of the IPSQ see Pittman et al., (in press).

After completion of the translation process, announcements were made at the beginning of the summer semester of 2005. The classes of instructors who were interested in giving extra credit to their students were visited by the first author to introduce the study. Data collection sessions were conducted based on appointment. In a 45-minute session, participants completed the demographic information form and were administered the IPSQ. The first author and two other trained graduate students recorded the sorts onto code sheets that were used for data entry.

Results and discussion

Across individuals, the mean correlations with three criterion sorts were found to be .37 (SD = .20, range = −.23 to .80), .01 (SD = .20, range = −.82 to .57), and −.32 (SD = .19, range = −.68 to .23) for informational, normative, and diffuse/avoidant styles, respectively. As can be seen in Fig. 1, the correlation distribution for each style indicated that the associations between the participants' sorts and the informational style criterion sort were mainly positive, whereas the correlations between the participants' sorts and the diffuse/avoidant style criterion sort were generally negative. The majority of the correlations between the participants' sorts and normative style criterion sort were close to zero. Supportively, the distribution of correlation coefficients with each criterion showed that 81.7% of the participants' sorts were significantly ($p < .001$) and positively correlated with the informational style criterion sort; whereas only one participant's sort had a significant negative correlation with this criterion. As expected, it was the opposite case for the diffuse/avoidant style criterion sort. None of the positive associations with the diffuse/avoidant style criterion sort were significant, whereas 73.6% had a significant
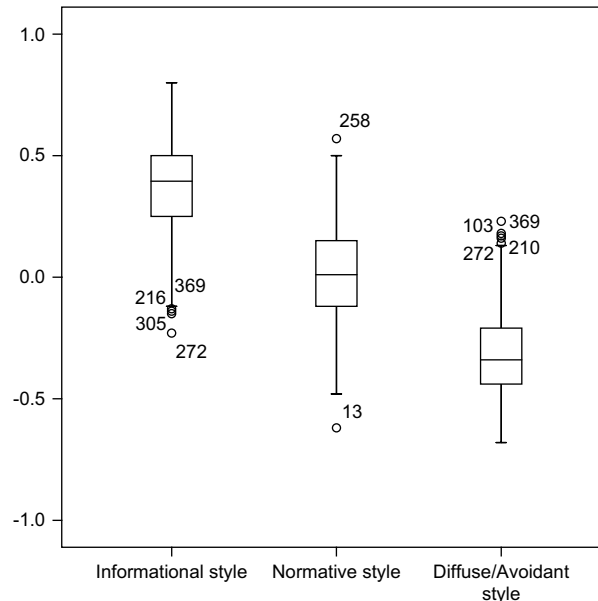

Fig. 1. Box plots of the three identity styles ($N = 370$).

Table 1
Intercorrelation between identity styles ($N = 371$)

Variables	2.	3.
1. Informational style	−.456***	−.927***
2. Normative style	–	.140***
3. Diffused style	–	–

***$p < .001$.

($p < .001$) negative relation with the criterion. Finally, for the normative style criterion sort, only 8.6% of the participants' sorts had significant positive correlations, and 9.2% of the sorts had significant negative correlations with the criterion.

As expected, a strong negative correlation was found between the informational and diffuse/avoidant styles ($r = −.93$, $p < .001$). As can be seen in Table 1, we also found a small positive association between the normative and diffuse/avoidant styles, which was unexpected. The moderate negative correlation between the informational and normative styles ($r = −.46$, $p < .001$) was consistent with the findings of studies using the IPSQ with American samples (Li, 2005; Pittman et al., in press), but not consistent with our predictions for the Turkish sample.

We also examined the patterns of the three styles in the sample based on gender, parent education, residential background, and age. Our hypothesis in terms of gender was supported and consistent with prior work (Li, 2005; Pittman et al., in press). We found that females scored higher on the informational style (and lower on the diffuse/avoidant style) than males did ($F(1,369) = 8,225$, $p < .01$ for the informational style; and $F(1,369) = 12,941$, $p < .001$ for the diffuse/avoidant style; see Table 2 for gender differences). Contrary to our predictions, residential background and parental education level made no difference in regard to identity style. As expected, age did not show any significant differences for the three styles.

In general, the findings of Study 1 suggest that the majority of the sample was high on informational style, and low on diffuse/avoidant style. The associations between these two styles support the idea that these styles are opposite ends of the same continuum (Pittman et al., in press). The moderate negative correlation between informational and normative styles indicates that Turkish young adults in this sample are less likely to be high on both styles simultaneously. Rather, the small number of significant associations (either positive or negative) between participants' sorts and the normative style criterion suggest that the majority of youth in this sample were high on informational style, and very few were either high or low on normative style.

Table 2
Means and standard deviations for identity styles by gender and residential background ($N = 369$).

Variables	Female		Male	
	M	SD	M	SD
Informational style	.34[a]	.20	.33	.20
Normative style	.02	.20	.00	.20
Diffuse/avoidant style	−.34	.19	−.27[b]	.19

[a] Significantly higher than males on information style ($F(1,369) = 8.225$; $p < .01$).
[b] Significantly higher than females on diffuse/avoidant style ($F(1,369) = 12.941$; $p < .000$).

Study 2

The aim of the second study was to investigate the construct validity of the Turkish version of the IPSQ. Previous research has indicated that coping styles and strategies (Berzonsky, 1992; Soennens et al., 2005), self-esteem (Nurmi et al., 1997), and types of self-definitions (i.e., personal, relational, and collective) (Berzonsky, 1994, 2005) show variation among styles, as they have been measured by the ISI (Berzonsky, 1989). According to the theory of identity styles, self-concept clarity, as well as cultural orientation (i.e., individualistic and collectivistic) might be other factors that differentiate the styles. These variables are expected to associate with identity styles also when the IPSQ is used because both the ISI and the IPSQ have a similar theoretical background. In this study, only informational and normative styles were examined given the evidence in Study 1 and other work (Li, 2005; Pittman et al., in press) that diffuse/avoidant style is, in most instances, the opposite equal of the informational style.

Coping

Berzonsky's study (Berzonsky, 1992) with 18- to 25-year-old college students showed that information-oriented individuals were more likely to use problem focused coping strategies, and were less likely to use wishful thinking or avoidance strategies when they were dealing with daily life stresses, compared to normative-oriented individuals who reported more maladaptive strategies. Partial support for Berzonsky's findings was provided by Soennens et al. (2005) showing that individuals who were likely to be self-initiated in their behaviors were likely to prefer either informational or normative styles; whereas individuals who were more likely to think about social expectations about how they should act, were more likely to prefer normative style than informational style. Similar findings were found when the styles were measured using the IPSQ (Pittman et al., in press); individuals who were information-oriented had higher scores than individuals who were normative-oriented on use of adaptive coping strategies. On the basis of these findings, we expected that informational style will be positively correlated with use of adaptive coping strategies (e.g., problem-focused coping style), and learned resourcefulness, but negatively correlated with use of maladaptive coping strategies (e.g., avoidance/denial, emotion-focused coping style, and wishful thinking). With regard to normative style, we expected to find a positive correlation with wishful thinking; however, its relation to adaptive coping strategies might vary. There is limited empirical evidence that suggests the normative style is more maladaptive than the informational style when dealing with life stresses. In identity styles theory it also can be argued that the normative style might be an adaptive way of dealing with life issues, though less adaptive compared to informational style when taking personal responsibility for choices.

Self-esteem

In a study conducted with American and Finnish samples using the ISI, Nurmi et al. (1997) found that information-oriented individuals reported higher self-esteem scores than normative-oriented individuals did. However, in a recent study conducted in Belgium (Luyckx, Soenens, Berzonsky, Smits, Goossens, & Vansteenkiste, 2007), self-esteem had a significant positive

correlation with normative style, but a non-significant correlation with informational style. Additionally, in a study where identity statuses were used, Taylor and Oskay (1995) found that self-esteem was positively associated with identity achievement (which has a high correlation with informational style) in both American and Turkish samples; however, it was negatively correlated with foreclosed status (which has a high correlation with normative style) in the American sample, but not in the Turkish sample. It appears that the relation between self-esteem and identity styles is complex, and this may, in part, be due to the nature of self-esteem. For instance, personal aspects of self-esteem (i.e. importance of personal characteristics and satisfaction with them) may be associated more strongly with informational style than with normative style. In identity related issues, normative-oriented individuals emphasize interpersonal characteristics (i.e. social roles, and norms) more than personal characteristics; therefore, they may rely less on personal aspects when evaluating their self-esteem, but emphasize self-esteem derived from interpersonal relationships. On the other hand, information-oriented individuals may evaluate both personal and interpersonal characteristics when determining self-esteem because they are more inclined toward evaluating personal and interpersonal knowledge about themselves. Thus, we hypothesized that informational style will be positively associated with higher self-esteem in terms of both interpersonal and personal characteristics, whereas normative style will be significantly associated with interpersonal self-esteem, but will show a non-significant association with self-esteem associated with personal characteristics.

Self-concept clarity

Berzonsky theorized that the informational style is associated with effortful self-exploration, and therefore results in greater self-awareness and self-concept clarity than does the normative style (Adams, Munro, Doherty-Poirer, Munro, Peterson, & Edwards, 2001). However, for Turkish young adults, self-concept clarity may be moderately correlated with the normative style, which emphasizes conforming to the prescriptions and expectations of significant others. This is expected given the coexistence of collectivistic and individualistic values within contemporary Turkish culture.

Self-definitions

The literature addressing associations between identity styles and self-definitions is consistent. There are three types of self-definitions: individual, relational, and collective. Individual self-definitions involve the conception of oneself as a unique, idiosyncratic being; relational self-definitions emphasize one's interpersonal roles, and ties to significant others; and collective self-definitions are about group membership, and group norms (Kashima & Hardie, 2000). According to Triandis (1989), everyone has individual, relational, and collective self-definitions, and individual differences occur in the extent to which each type of self-definition is emphasized. Some individuals may be more open to one type of self-definition, whereas other individuals might emphasize more than one type of self-definition. According to Berzonsky (1994), informational individuals are more likely to use individual definitions, and normative individuals are more likely to use collective and relational definitions. Based on these findings informational style was expected to be positively associated with individual self-definitions, and negatively (or non-significantly)

associated with collective self-definitions. According to Kagitcibasi (1996), Turkish youth seem to emphasize relational aspects of self regardless of their cultural orientation; therefore we also expected a positive association between informational style and relational self-definitions. On the other hand, it was anticipated that the normative style will be positively correlated with collective and relational aspects of self, and negatively or non-significantly correlated with individual self-definitions.

Cultural orientation

Culture as a set of values, norms, and scripts is likely to affect the attitudes, beliefs, and behaviors of individuals (Oyserman, Kemmelmeier, & Coon, 2002). In this sense, cultural orientation is related to but distinct from types of self-definitions (e.g., individual, relational, and collective). Self-definitions are about oneself, whereas cultural orientation is about an individual's perception of what is valued/normative in the culture. Based on Berzonsky's theorizing, individuals who are normative in their identity style are more likely to have conservative cultural attitudes or a collective perspective than are individuals who tend to use an informational style. Although there is no identified empirical study that has examined the link between cultural orientation and identity styles, the conceptualization of styles suggests that these styles may operate differently according to cultural orientations. Thus, regarding characteristics of Turkish culture (Imamoglu, 1998, 2003), we hypothesized that informational style will be positively associated with both individualistic and collectivistic orientations, whereas normative style will be positively associated with collectivistic orientation only.

Method

Participants

The sample for Study 2 consisted of college students attending a Turkish university in Istanbul ($N = 247$, 57.7% female). The mean age of the sample was 21.21 (SD = 1.4), with a range from 17 to 25. Half of the sample had a rural background (49.4%), and 21.3% had an urban background, whereas 10% reported a mixed background (the rest did not report residential background information).

Measures

In addition to measures used in Study 1, several other instruments were administered in Study 2 to assess the validity of the IPSQ. Only survey measures that had been developed in or translated into Turkish and used in prior studies with Turkish college or high school samples were included.

Coping styles and strategies were measured by two different instruments. The *Ways of Coping Scale*, which was originally developed by Folkman and Lazarus (1985), and was translated into Turkish by Onen (2004), aims to assess the use of different behavioral and cognitive strategies in stressful events of daily life (Folkman, Lazarus, Dunkel-Schetter, DeLogis, & Gruen, 1986). The instrument contains 67 items with a 4-point Likert-type response scale (*0 = does not apply/ not used; 1 = used somewhat; 2 = used quite a bit; 3 = used a great deal*). It has three dimensions: *adaptive coping* ($\alpha = .86$ in this study), an example item is 'I made a plan of action and followed it,' *avoidance/denial* ($\alpha = .70$ in this study), an example item is 'I refused to believe that it (*the*

problem) had happened,' and *wishful thinking* ($\alpha = .73$ in this study), an example item is 'I hoped a miracle would happen.'

The second instrument used to measure coping was the *Coping Styles Inventory*, originally developed in Turkish by Sahin and Durak (1995) and designed to assess coping styles of university students. It has 30 items, with a 4-point Likert-type response scale ranging from 1 = Not at all true for me to 4 = Totally true for me. It has two dimensions: problem-focused coping style ($\alpha = .86$ in this study), and emotion-focused coping style ($\alpha = .77$ in this study). An example item for problem-focused style is 'When I have a problem, I try to calm down and think about my options.' An example item for the emotion-focused style is 'When I have a problem I always think that I should have been stronger.' Problem-focused style is accepted as the effective style, whereas emotion-focused coping refers to the ineffective style of coping.

Learned resourcefulness represents individuals' learned repertoire of behaviors and skills that are related to dealing with emotions, and thoughts. Learned resourcefulness is measured by Rosenbaum's (1988) *Learned Resourcefulness Scale*, which was translated into Turkish by Siva (1991), and tested in terms of its reliability and validity by Dag (1991). The Turkish version assesses factors such as acting with a plan, mood control, unwanted thought control, impulse control, self-adequacy, calming oneself, pain control, being optimistic, directing concentration, and flexible planning (Dag, 1991). The 36-item measure, that has a 5-point Likert-type response scale ranging from 1 = Poor to 5 = Excellent, was found to be reliable in the current study with an alpha level of .84. An example item is 'Often by changing my way of thinking I am able to change my feelings about almost everything.' A single score is calculated, where higher scores indicate greater resourcefulness.

Self-esteem was measured using the *Adult Sources of Self-Esteem Scale*, a multidimensional measure of self-esteem (originally developed by Fleming & Elovson, 1988). The instrument was translated into Turkish by Sunar (1999). There are 20 items, 10 of which are related to personal characteristics (an example item is 'my skills related to areas such as sports, art, or music'), and the other ten are related to interpersonal characteristics (an example item is 'my relationship with my family'). Respondents are asked to rate each characteristic twice using a 10-point scale ranging from 1 = Not important at all/ Not satisfied at all to 10 = Very important/Very satisfied, first in terms of the importance of each item, and the second in terms of how satisfied they are with each item. Thus, the four scores derived from this scale are (a) importance of personal characteristics; (b) importance of interpersonal characteristics; (c) satisfaction with personal characteristics; and (d) satisfaction with interpersonal characteristics. The internal consistency of the four scales was found to be acceptable in the current study (.79, .82, .84, .87, in the above order).

Clarity of self-concept was assessed using the *Self-Concept Clarity Scale*. This scale was originally developed by Campbell, Trapnell, Heine, Katz, Lavallee, and Lehman (1996), and then was translated into Turkish by Sumer and Gungor (1999), and found to be reliable; the alpha level in this study was .87. This 12-item measure uses a 5-point Likert-type response scale ranging from 1 = Strongly disagree to 5 = Strongly agree. An example item is 'I don't think I can tell someone about who I am, even if I want to say something' (reverse scored item). Higher scores indicate greater self-concept clarity.

Emphasizing different aspects of self-definitions is another factor that might relate to identity styles. This concept is measured by the *Relational, Individual, and Collective Self-Aspects Scale* which was originally developed by Kashima and Hardie (2000). The Turkish version of the

instrument was translated by Fiske (2003, cited in Gercek, 2004). There are 10 items in the instrument. Each item gives a situation and three possible responses (representing each aspect of self). An example item is 'I would teach my children (a) to know themselves and develop their own potentials as a unique person (representing the individual aspect), (b) to be caring to their friends and attentive to their needs (representing the relational aspect), (c) to be loyal to the group to which they belong (representing the collective aspect)'. Respondents are asked to rate each possible response for each situation using a 7-point Likert-type scale ranging from *1 = least like me* to *7 = most like me*. Each self aspect is rated separately, summing ratings for the ten items separately for individual, relational, and collective dimensions (with a possible range of scores from 10 to 70). These scales are not mutually exclusive; one can score high on one or more scales. Individual, relational, and collective scales were found to be internally consistent in this study (.82, .84, and .84, respectively).

The *Individualism–Collectivism Scale*, which was originally developed by Hui and Triandis (1986) was used to measure cultural orientation. The scale was translated into Turkish by Gorgenli (1995). For the individualism subscale (20 items), an example item is 'if the group is slowing me down, it is better to leave and work alone' the alpha level in the current study was found to be .61. An example item for the collectivism subscale is 'it does not matter to me how my country is viewed in the eyes of other nations' (reverse scored item); the alpha level of this scale was found to be .70 in the present study. The response scale ranges from 1 = Strongly disagree to 5 = Strongly agree.

Procedure

Announcements at the university were made in the fall 2005 semester following the summer semester when Study 1 was conducted. The classes of instructors who agreed to offer extra credit were visited to recruit the participants. Data were collected during December 2005 and January 2006 in 60-minute sessions by the first author and two trained assistants.

Results and discussion

The mean correlations with the identity style criterion sorts were found to be consistent with the findings of Study 1; they were .36 (SD = .21), and .02 (SD = .20), for informational and normative styles, respectively. All other descriptive analyses also were consistent with the results of Study 1. As in Study 1 females scored higher on informational style than males did.

Correlations of the IPSQ scores and each of the other scales are shown in Table 3. In terms of coping, we found support for our hypotheses. Informational style was positively correlated with adaptive coping strategies, problem-focused coping style, and learned resourcefulness; whereas this style was negatively correlated with avoidance/denial, wishful thinking, and emotion-focused coping style. These findings indicate that individuals who are high on informational style are more likely to be resourceful and skillful in coping with identity issues, than are individuals who are low in information orientation who are more likely to have maladaptive coping strategies. For the normative style, we expected and found positive associations with wishful thinking. There were no significant relations between adaptive coping strategies and this style; instead normative style was positively associated with emotion-focused coping style, which is viewed as a maladaptive way of coping. Whether this is maladaptive in Turkish culture requires further investigation.

Table 3
Intercorrelations among identity styles and validity variables[a]

Variables	Informational style	Normative style
Collectivistic cultural orientation	.144* (*n* = 247)	.132* (*n* = 247)
Individualistic cultural orientation	−.050 (*n* = 247)	−.214*** (*n* = 247)
Relational aspects of self	.127** (*n* = 246)	.166*** (*n* = 246)
Collective aspects of self	.041 (*n* = 246)	.261*** (*n* = 246)
Individual aspects of self	.341*** (*n* = 246)	.014 (*n* = 246)
Self-concept clarity	.322*** (*n* = 246)	.066 (*n* = 246)
Importance of personal characteristics	.210*** (*n* = 247)	.095 (*n* = 247)
Importance of interpersonal characteristics	.261*** (*n* = 247)	.157** (*n* = 247)
Satisfaction with personal characteristics	.367*** (*n* = 247)	−.085 (*n* = 247)
Satisfaction with interpersonal characteristics	.418*** (*n* = 247)	−.023 (*n* = 247)
Adaptive coping	.229*** (*n* = 247)	.089 (*n* = 247)
Avoidance/denial	−.281*** (*n* = 247)	.022 (*n* = 247)
Wishful thinking	−.198** (*n* = 247)	.250*** (*n* = 247)
Problem-focused coping style	.401*** (*n* = 236)	−.156* (*n* = 236)
Emotion-focused coping style	−.387*** (*n* = 228)	.257*** (*n* = 228)
Learned resourcefulness	.504*** (*n* = 247)	−.072 (*n* = 247)

*p < .05, **p < .01, ***p < .001.
[a] Because diffuse/avoidant style was not included in Study 2, the correlation coefficients for diffuse/avoidant style were not included in this table.

For self-esteem, we hypothesized that informational style would be positively correlated with both personal and interpersonal aspects of self-esteem; whereas normative style would be positively correlated only with the interpersonal aspects. As seen in Table 3, our hypothesis for informational style was supported; however, our hypothesis for normative style was partially supported; normative style was significantly and positively correlated only with the importance of, but not satisfaction with, interpersonal characteristics. The non-significant relation between this style and personal aspects of self-esteem also is consistent with past research and supports our hypothesis. Therefore, the findings for self-esteem indicate that individuals who are high on informational style are more likely to be high on all aspects of self-esteem, either personal or interpersonal; whereas being high on normative style is associated only with giving high importance to interpersonal characteristics.

Our hypotheses regarding the relation between self-concept clarity and identity styles also were partially confirmed. Informational style was significantly and positively correlated with clarity of self. The association between self-concept clarity and normative style was found to be non-significant. In other words, this study supports the notion that Turkish young adults who use an informational style are likely to have a more clear sense of self; whereas individuals who prefer the normative style vary in their level of self-concept clarity.

Self-definitions and cultural orientation were the final variables we examined. As we hypothesized, having a higher score on informational style was associated with having a higher score on personal self-definitions. Informational style also was positively correlated with relational self-definitions, but its relation with collective self-definitions was non-significant. On the other hand, having higher scores on normative style was positively associated with having higher scores on relational and collective self-definitions. As expected, both informational and normative styles

were positively associated with relational self-definitions, but only normative style was significantly correlated with collective self-definitions, and only informational style was significantly correlated with individual self-definitions. These associations are consistent with the literature addressing Turkish young adults; regardless of their preferred identity styles, they have salient relational self-definitions. Where they do vary according to identity styles is their emphasis on personal or collective aspects of their self-definitions.

Finally, the results of this study partially supported our cultural orientation hypotheses. Both informational and normative styles had modest positive associations with collectivistic cultural orientation. However, only normative-orientation showed a significant negative association with individualistic cultural orientation. In other words, being collectivistic in cultural orientation did not differentiate being high on normative style and low on informational style, or vice versa; but having lower levels of individualistic cultural orientation was associated with being more normative in dealing with identity issues. Thus, being more collectivistic in cultural orientation did not differentiate a Turkish young adult's identity processing orientation. What may be more important is whether young adults integrate these collectivistic characteristics into their self-definitions.

General discussion and conclusions

Several empirical studies have contributed to the understanding of identity formation processes using Beronsky's identity style model; however, most of the research has been conducted in Western countries (i.e. North America or Western European countries) limiting the generalizability of these findings across different cultural contexts. Replicating these studies in non-Western countries to determine whether similar patterns exist helps to provide essential information about universal, as well as culture-specific aspects of identity development processes. Thus, this study focused on describing the identity style patterns of Turkish young adults, and establishing the validity of identity styles in this cultural context.

The descriptive results showed that the Turkish young adults were highly information-orientated in their approach to identity issues, and were less likely to use a normative style. One limitation of this finding derives from the characteristics of the sample and limits the generalizability of this finding to the broader population of Turkish youth. The sample for this study was recruited from a Turkish university where the campus life can be characterized as Western in style; even the formal language of the school is English. Further, the school is located in one of the most modern cities of Turkey, Istanbul, and the average SES level of students attending this school is middle class. Although recruiting a more homogeneous sample was deliberate for this initial investigation of the newly translated IPSQ instrument, further research should target more heterogeneous samples.

In general, descriptive findings for the three styles were found to be consistent with previous research. First, as found by Pittman et al. (in press), this study supports the conceptualization of informational and diffuse/avoidant styles as two ends of the same continuum; in other words, diffuse/avoidant style indicates a the lack of exploration activities, which is expected to be high in informational style. The high negative correlation between informational and diffuse/avoidant styles also is theoretically meaningful. According to Erikson's (1968) stage theory, identity and role confusion are two extremes that individuals move between as they engage in identity work.

At the one extreme, individuals form their sense of identity, which is consistent over time and across situations. At the other extreme, individuals are not successful and they end up in identity diffusion. The different paths and procedures individuals follow in the process of identity formation accounts for this variation between a well-established identity and identity diffusion. The theoretical literature on identity clearly suggests that exploration is the most critical under-lying process of identity formation (Berzonsky, 1989; Erikson, 1968; Grotevant, 1987). Therefore, whether an individual engages in exploration activities or not (i.e., informational style versus diffuse/avoidant style) is a different dimension and accounts for different outcomes, than the dimension that captures whether an individual engages in a certain type of exploration activities, such as seeking and evaluating relevant information (informational style), or obeying the standards and norms of the family or community (normative style). In this regard, the current study suggests that informational and diffuse/avoidant style are two ends of the same continuum ranging from high exploration to lack of exploration, and normative style is a separate continuum.

The negative correlation between informational and normative styles was unexpected for the Turkish sample; however, this finding is consistent with the results of the IPSQ studies conducted with American samples. The same association was positive and small in another Turkish college student sample when identity styles were measured by the ISI (Celen & Kusdil, 2006). Therefore, the difference in the findings may be due to the difference in the methods employed. The results based on the IPSQ, which assess the relative importance of each style, showed that the infor-mational style was preferred. The ISI, which assesses each style independently, may have yielded different findings. This finding may also be explained by the characteristics of the samples (i.e., college students) in the current studies.

Study 1 had results for gender differences that are consistent with the literature. Across cultures, females are more informational than males are. On the other hand, parent education and residential background variables did not explain variability in the use of identity styles. Possibly other parental constructs are more critical for identity processing styles. For instance, it might be important to examine the value parents give to their children's personal choices, or psychological support parents provide for their children's identity formation. Based on the examination of Turkish culture by Kagitcibasi and others, educational level and residential background of parents are assumed to imply differences in the values given to personal choices and support for exploring alternatives; however investigating these variables directly might contribute more to the literature. Another explanation would be related to the sample characteristics. The majority of the participants did not live with their parents; thus, parental influences might be greatest prior to college, and less prominent during college. A final explanation includes the need to conceptualize the education level and residential background of parents differently. It is possible that the way parent education and residential background were conceptualized in this study did not capture the complex nature of these variables. Finally, in order to better understand the patterns of identity styles in Turkish college students, years in school and current residential status (i.e., whether students live with parents, off campus, or on campus) are other factors that would be important to examine. The extent to which students are exposed to university life may affect their use of the different identity styles.

Based on the findings of Study 2, we can draw initial conclusions that identity styles as measured by the IPSQ are meaningful and valid for Turkish college students. In general, the

findings revealed that the more Turkish college students used informational strategies in dealing with identity issues, the more likely they were adaptive and resourceful in their general coping strategies, had higher levels of self-esteem, greater self-concept clarity, had higher relational and individual self-definitions, and were higher on collectivistic cultural orientation. On the other hand, young adults who were higher on the normative style were more likely to report wishful thinking and emotion-focused coping strategies, higher levels of importance for their interpersonal characteristics, higher levels of relational and collectivistic self-definitions, and a higher collectivistic as well as a lower individualistic cultural orientation.

One of the interesting questions of Study 2 was whether informational style or normative style is more adaptive in a collectivistic culture. The findings regarding coping, self-esteem, and self-concept clarity show that even in a collectivistic context, informational style is the more adaptive style; whereas there is only partial support indicating that normative style is not adaptive. Out of six coping variables of this study only three variables were significantly associated with normative style. Normative-oriented Turkish college students were less likely to use problem-focused coping style, and more likely to use wishful thinking or emotion-focused coping; however, their adaptive coping skills in general, their resourcefulness, and the level of avoidance/denial they used when dealing with life problems showed variation. Moreover, normative style did not have significant associations with personal aspects of self-esteem and self-concept clarity. Some normative-oriented young adults might be high in adaptive coping, resourcefulness, avoidance/denial, personal aspects of self-esteem, and self-concept clarity; others might be low on these variables. Therefore, the current study supports the notion that normative style is less adaptive compared to informational style; however, normative style is not necessarily maladaptive. These findings may, in part, be due to the fact that the participants of this study were college students, live in a campus environment which supports exploration of relevant information about oneself, and were therefore more informational in their orientation. From an Eriksonian perspective, a college environment provides the opportunities for individuals to explore and evaluate their identity alternatives and to practice them in order to see their goodness of fit. Thus, it is possible that informational style is more adaptive because we focused on college students in this study. Greater variation may be seen when both college and non-college young adults are investigated in relation to adaptiveness of informational and normative styles. Another explanation would be that adaptiveness might be related to the amount of exploration. Normative-oriented individuals also explore their alternatives; however, their exploration is more limited than the breadth and depth of exploration information-oriented individuals report. These results also may suggest that the informational style is simply more adaptive when dealing with personal issues regardless of the cultural context. If this is true, it can be concluded that an orientation toward exploring various identity alternatives is about individual development and is adaptive in various environments. However, further research needs to address adaptability associated with different identity styles in more depth and in more heterogeneous samples.

One other important contribution of the current study is the investigation of cultural values at various levels. The relation between identity styles and self-descriptions has been examined by Berzonsky and his colleagues (Berzonsky, 1992, 1994, 2003) with American samples. In the current studies it was found that information-oriented young adults were likely to report more individual/personal self-definitions; whereas normative-oriented young adults were likely to report more collective or relational/social self-definitions. Theoretically, informational style

implies an emphasis on the person, whereas normative style is characterized by an emphasis on relations with others while dealing with identity issues. However, in the current study, both information-oriented and normative-oriented Turkish young adults were relational in their self-definitions. Information-oriented individuals also incorporated individualistic self-definitions, whereas normative-oriented individuals also incorporated collectivistic self-definitions. This finding makes more sense when it is combined with the findings related to perceptions of what is valued in a certain culture. Both informational and normative styles had significant positive associations with collectivistic cultural orientation, whereas only normative style had a significant negative association with individualistic cultural orientation.

Taken together, the findings of the current studies support the validity of identity styles and the use of the IPSQ with Turkish college students. Comparison of these findings with the literature shows that the associations among Turkish young adult college students' identity processing styles and their skills and attitudes are similar to those found for Western young adult college students. However, differences were found in the associations between the Turkish young adults' identity styles and their cultural orientations both at societal and individual levels. Further research will need to address these links using a heterogeneous sample of Turkish youth, and employing a cross-cultural methodology. Future investigations also should consider the specific character-istics of a given context, rather than only using the broad constructs of collectivism and indi-vidualism. One possible future direction would be investigation of antecedents of identity styles (i.e., why young adults use one style more frequently and widely than they use other styles), and the consequences (i.e., whether an informational or normative style is more adaptive for a well-functioning adulthood), taking contextual and individual factors into consideration. Finally, it will be important to examine the function of informational and normative styles in the process of identity formation in different cultural contexts. Cross-cultural investigation of the link between identity styles and the actual work of identity exploration (e.g., whether informational style predicts wider exploration behaviors) would help to clarify whether identity styles are distinctive across cultural contexts.

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