

Translation and Adaptation of Identity Style Inventory for Pakistani Adolescents

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The present study was aimed to translate and adapt the Revised Identity Style Inventory (ISI-5) developed by Berzonsky et al. (2013) in an indigenous setting. A sample of 600 adolescents was selected from public and private schools in Punjab. The standard procedure of the back-translation method recommended by Water's et al. (2006) was used to translate and adapt the Inventory. Exploratory Factor Analysis on the sample of adolescents ($n = 350$) demonstrated three distinct factors that is, diffuse/avoidant identity style, informational identity style, and normative identity style. Factorial structure elucidated that two items of normative identity style were discarded due to low factor loading whereas one item from normative style was loaded on informational identity style. Confirmatory Factor Analysis on the independent sample of adolescents ($n = 250$) confirmed this three-factor model with good model fit indices. Alpha reliability coefficients were also computed. Moreover, the factorial structure of the scale is considered as validity index. Limitations and suggestions for further investigations were also discussed.

Keyword. Identity style inventory, diffused/avoidant identity style, informational identity style, normative identity style

The transition period from childhood to adulthood is considered as an important phase of life and this phase is termed as adolescence. This is the time when many physical and psychological changes occur in an individual. The main exploratory area for this period is search of self or to develop a sense of self. Many questions like "who am I?" "why I am here?" are gyrating in the heads of adolescents. In simple terms, adolescence is the critical period for identity development. Queries relevant to identity can arise at any phase of life, but

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adolescence is the period when these issues frequently arise (Whitbourne, Sneed, & Sayer, 2009). Indeed, this is the time of life that has traditionally been “set aside” for identity development (Arnett, 2000).

Social Cognitive Model of Identity Styles

Identity development is considered essential for many people’s lives, but it becomes of utmost importance as individual move from childhood to adulthood. Many questions float in mind of a young person like what are his goals, values, what is his purpose of life and what attributes makes him unique from others and he spends a lot of time in search of answers of all these questions. In order to answer these questions researchers and scholars have adopted a variety of approaches and perspectives (Weigert, Teitge, & Teitge, 1986).

For this purpose to explore stability and individual differences in identity formation, Berzonsky (1990) have attempted to investigate this process through socio-cognitive perspective. In his theory he suggested three different identity styles which a person used to develop identity. An identity style basically defines one’s ability to solve problems and use of coping mechanism Furthermore identity style categorizations is based on an individual’s way of handling and managing daily life situations. This identity development model is typically grounded on constructivist epistemological approach which explains about the nature of knowledge and ways which an individual adopt or avoid in constructing and reconstructing a sense of self-identity. The three identity styles are as follows:

Informational style. An information style is linked with knowledge oriented approach, and adolescents having this style actively involved in the development of a sense of identity by looking for and analyzing self- relevant information before taking any kind of decision and making commitments. Adolescents having information style are open towards new information and experiences, have a critical attitude toward self-conceptions, furthermore they never show resistance in revising their concepts of identity when they face any contradictory information about themselves. As a result, they move toward the development of a coherent and integrated sense of personal identity (Berzonsky, 1990, 1992a, 2000) because of their this attitude they are considered as scientific self-theorists as they explore their perspectives and put a lot of effort in developing understanding regarding their identity (Berzonsky, 2008a).

Adolescents having informational identity style tend to demonstrate high levels of complex cognitive processes, remain

vigilant during decision making and problem solving process, need for cognition, need for independence, and cognitive perseverance. Researchers demonstrated the fact that among five personality factors, openness to experience has been found strongest associations with informational style (Soenens, Duriez, & Goossens, 2005).

Berzonsky (1992) further explained this style from the perspective of Marcia status theory of identity, which stated that individuals having informational style are self-exploring, and thus reached on identity achieved or moratorium status. A lot of research work have been done on explore identity styles with adolescents and it was found that informational style is positively linked with personal expressiveness while negatively associated with diffuse avoidant style.

According to the paradigm of identity status individuals having identity achieved or moratoriums status can be termed as self-exploring individuals, and they rely on their social-cognitive resources to achieve identity (Berzonsky, 1990; Berzonsky & Neimeyer, 1994). Moreover, people with this style depend and utilize their complex cognitive tricks that further make them capable of responding adaptively by reanalysis and modifying information that can be threatening for their personality (Berzonsky & Kinney, 2008).

Information identity style has also been found to be positive association with emotional and academic autonomy (Berzonsky & Kuk, 2005), emotional intelligence (Seaton & Beaumont, 2008), self-efficacy (Hejazi, Shahraray, Farsinejad, & Asgary, 2009) and self-regulated learning (Jakubowski & Dembo, 2004). An important factor which is associated with selection of information identity style is parenting and it was stated by Berzonsky (2007), that adolescents having supportive, reason based authoritative parents usually adopt this style. There is another point of view according to which this style is also associated with such parenting styles that are more demanding, less rational (Smith et al., 2008) and parental allurements of information (Berzonsky et al., 2007).

Normative style. Second style which adolescents used in identity development process is normative style. Like its name indicates this style is utilized by those who focus on norms, rules and direction of others. Adolescents having this style more often depend on expectations, orders and guidance of by family, parents, and authority figures especially when facing problems in identity development. Normative adolescents put a close eye on information that can portend their inflexible standards, ethics and beliefs; they are very rigid in organizing identity commitments and over sensitively try to preserve and hold that commitments (Berzonsky, 1990). Moreover

they have qualities of imitation and conformity. Typically normative individuals are close minded (Berzonsky, 2003), hard, inflexible regarding their beliefs and narrow vision (Berzonsky & Neimeyer, 1994), consistent self-conceptions that are difficult to change (Nurmi et al., 1997), and they suppress any kind of exploration regarding identity development (Schwartz, 1996).

Research findings further depicted the fact that individuals with normative styles are firmly committed and determined, with a clear and distinct sense of informative purpose (Berzonsky & Kuk, 2000, Berzonsky, 2003). This particular style seems to speak to an abandoned method for deciding, in that uncertainty isn't endured and duties are established as quickly as time permits (Berzonsky & Sullivan, 1992).

Their foremost concern is to protect and preserve existing self-views and they always strive to defend and maintain existing identity structure. In one way their self-protective concern decreases possible self-threats but results in enhancing stereotypic reaction and cognitive alteration (Nisbett & Ross, 1980). On the basis of above evidences the fact can be concluded that individuals adopt this style have tough beliefs and strong standards that predicts their bonding with culture and traditions (Soenens, Duriez, & Goossens, 2005). Those who attained high score on this dimension basically rely on maladaptive mechanisms in comparison to individuals having information style that falsify or reject feedback that is in conflict with their opinions.

Diffuse-avoidant style. Adolescents having diffuse-avoidant style usually avoid conflicts and problems related to identity, they adopt the pattern of postponing and delaying decision making until situation lead them to a certain plan of action. These individuals continually develop themselves according to demands and expectations of society and do not find a need for long term modification in identity structure. As a result of this they develop a less integrated and disturb identity structure (Berzonsky, 1990). And such types of behavior demonstrate their deliberate attempts to escape from doubtful and contradictory negative information of self-concept (Berzonsky & Ferrari, 2009).

Adolescents possessing diffuse avoidant style usually focus on situation for self-construction and identity development, but this situation specific perspective does not guarantee of a healthy self-construct (Berzonsky, 2003). Their most characteristic usually comprised on low level of active information processing and problem solving. Along-with low problem solving ability, they frequently use maladaptive coping mechanisms, to be susceptible of feelings of guilt

and to demonstrate conduct disorders. Furthermore, they score high on neuroticism but low on conscientiousness and agreeableness.

Diffuse avoidant individuals are very typical in their routine matter and most of the time focus on the situation for guidance and operate with a hedonistic perspective. They are not rational in their thought process; instead, they use intuitive reasoning for solving identity-related problems (Berzonsky, 1990, 2008).

The Identity Style Inventory (ISI; Berzonsky et al., 2013) has widely been used to examine the individual differences that arise during the construction of identity, particularly in individual cultural contexts; it is often assumed that these styles apply universally (Berzonsky, 2011). Past evidences indicated that this construct might operate differently herein comparison to Western contexts (Hassan, Vignoles, & Schwartz, 2018; Tariq, 2012). These styles have frequently been studied in Western context but it is important to study these styles in Pakistan as it might be a significant context to investigate identity styles. However, there is dearth of researches that has been conducted in countries having collectivistic culture using the ISI and even fewer research has been conducted to validate the ISI for use in such perspectives (Crocetti & Shokri, 2010; Tariq, 2012). Although few researches have been conducted to determine the validity of this construct in Pakistan, one study is conducted by Tariq (2012) on ISI-IV and another study was conducted by Hasan et al. (2018) to validate the factor structure of ISI-V. Although these studies provided some insight related to how identity styles operate in Pakistan but both of these studies were carried out in Islamabad and they did not translate identity style inventory. Current study was planned to translate and validate ISI-V in indigenous setting.

As ISI has been used frequently in western culture but it is essential to investigate prudently how the ISI has been used in collectivistic cultures and to explore the psychometric properties across different cultural contexts, so that the use of the ISI in prompting policies and practice in different cultural perspectives can be deeply assessed. The psychometric properties, of the ISI-3 in specific, when translated and used in different cultures were found satisfactory (Berzonsky, 2011; Berzonsky et al. 2013). Although, the psychometric structure of the ISI versions in prior research were usually investigated only in terms of Cronbach's alpha coefficients. In comparison to other identity styles, the normative identity style did often show lower reliability, especially, in studies where the original version was translated into different languages (Berzonsky et al., 2003; Crocetti & Shokri, 2010; Xu, 2009).

Method

Research Design

Present study was carried out into two Phases. Phase-I was tended to translate and adapt the original scale into Urdu language, whereas Phase-II was conducted to find out the psychometrics and factor structure of ISI-5 among adolescents

Instrument

Revised Identity Style Inventory (ISI-5). Identity Style Inventory developed by Berzonsky et al. (2013) was used in current study. ISI-5 is consisted of three sub-scale that is, Informational Scale ($\alpha = .73$) which has 9 items; Normative Scale with 9 items ($\alpha = .66$); and Diffuse-avoidant Scale ($\alpha = .72$) also has 9 items. Items are anchored on 5-point Likert type scale where 1 correspond with „*not at all like me*“ and 5 with „*very much like me*“. Convergent and discriminant validities had also been ensured. Score range each subscale is 9–45. Identity styles are operationalized through the scores obtained from identity style inventory. High score on each subscale is suggestive of high informational, normative, and diffuse/avoidant identity styles and vice versa.

Phase-I: Translation and Adaptation

The utmost emphasis of translation was on conceptual and cross-cultural equivalence, instead of linguistic/literal. One of very renowned and well-acknowledged method of scale translation is back-translation method which was recommended by Water's et al. (2006) and following steps were used to accomplish translation procedure:

Step 1: Forward translation. The first step taken for translating the scales was forward translation. In this step scales were translated from English language to Urdu. For this purpose, three experts was selected who were proficient in the use of English and Urdu languages and had experience in test development and research in psychology. Two of the translators were students of PhD psychology and third was a lecture from English department.

Step 2: Reconciliation of items. In second step a meeting was held to reconcile the three independent forward translations. All the three translations were compared and evaluated on the basis of conceptual and theoretical equivalence, clarity related to the English versions of scales. Three PhD experts of Psychology, including one associate professor and two Assistant Professors, took part in reconciliation meeting.

Step 3: Backward translation. The Backward Translation was planned to evaluate the conceptual equivalence of the Reconciled Forward Translation of the scale. For that purpose, the Urdu version of scale was translated back into English and it is supposed to be much similar with the original one and if there were some discrepancies, those were identified and corrected.

Step 4: Review of forward and backward translation. In this step another meeting of committee was arranged to review both translations that is, forward and backward. Committee was composed of four members, two assistant professors of psychology (both were PhD) and two lecturers (one from Psychology and one from English department) who reviewed both translations and selected the best one forward translation. They also determined the conceptual and theoretical equivalence.

Step 5: Pre Test. This step helped researcher to the adaptation of scale. Pre-testing was conducted to assess whether items of scale is understandable for adolescents or not. For that purpose 25 adolescents were selected, they were briefed and given instructions related to that meeting. They were provided with the Urdu translated versions of scales and asked about if there is any word or item that is difficult for them to understand or they found any word which is unacceptable or offensive. Few words about which respondents complain that they are difficult for them to understand have been changed.

On the recommendations of respondents' feedback words like *میں نے* in item number 12 was replaced with *میں نے* and *میں نے* in item number 17 was found difficult and for that logical word has added to clarify the word, in item number 26 word *میں نے* have been found difficult for some students that's why an additional word *میں نے* has added to make item more clear and understandable.

Phase-II. Validation Study

After that tryout the final versions of scale was subject to the EFA and CFA to ensure the factorial structure that also was assumed to provide the evidence for validity of identity style inventory.

Sample. Purposive sampling technique was used to collect data of 600 adolescents from public sector high schools, which was collected into two phases i.e. first for Exploratory Factor Analysis (EFA) ($n = 350$) and then for Confirmatory Factor Analysis ($n = 250$). Sample of study that is adolescents' were selected from schools and colleges of district Jhelum, Sargodha and Khushab. Sample comprised of equal number of boys and girls. Age of the sample ranged between 11 to 19 years ($M = 16.23$, $SD = 2.13$).

Procedure. All the participants of study were personally contacted in their institutes after taking the permission from administration of institutes. Objectives of study were briefly discussed with them and instruments of study along with demographic sheet were distributed among students in the form of booklet and certain oral instructions so that students could understand the procedure of responding on measuring tools of study. Each participant required 15-20 minutes for completing the questionnaire. At the end participants were warmly thanked.

Results. Certain statistical analyses i.e. alpha coefficients, Pearson correlation, EFA, and CFA were carried out to accomplish the objectives of study.

Table 1
Psychometric Properties and Correlation Matrix for Dimensions of Identity Style Inventory (N=350)

Scales	<i>k</i>	1	2	3	α	<i>M</i>	<i>SD</i>
Informational	9	-	.30**	.05	.73	38.43	7.11
Normative	9		-	-.02	.66	23.92	3.71
Diffuse/ Avoidant	9			-	.72	31.10	6.99

Note. * $p < .01$.

Table 1 stated the psychometrics and correlation among subscales of original and translated version of Identity Style Inventory. All the scales attained satisfactory reliabilities.

Table 2 represents the results of exploratory and confirmatory analysis. EFA represented the three factor solution with Eigen value > 1 by using varimax rotation. The value of Kaiser- Meyer Olkin sampling adequacy measure was found to be .78 which was greater than .6 and that is considered as the acceptable value. Bartlett's test of Sphericity ($\chi^2 (531) = 2861.91, p = .000$) also attained significant value which is an indication that the matrix of correlation significantly differed from an identity matrix and the items attained satisfactory common variance that could be examined through factor analysis. Furthermore, anti-image diagonals of correlation matrix values were also found above .5, that is an indication of the inclusion of items in the factor analysis, and communalities values were greater than .30, which means that each item shared some common variance with other items. Principle component factor analysis with Varimax rotation was used as the extraction method. The total variance explained by scale was found 44.26.

Table 2

Exploratory Factor Analysis and Confirmatory Factor Analysis for Identity Style Inventory by Using AMOS

Item number	EFA	CFA		
Factor 1: Diffuse Style				
1	.44	.30		
2	.56	.55		
3	.52	.45		
4	.60	.50		
5	.61	.65		
6	.62	.58		
7	.45	.33		
8	.40	.44		
9	.57	.55		
Factor II: Informational style				
10	.51	.45		
11	.73	.53		
12	.71	.52		
13	.71	.48		
14	.62	.52		
15	.48	.45		
16	.56	.54		
17	.55	.44		
18	.37	.38		
24	.46	.37		
Factor III: Normative Style				
19	.30	.34		
21	.57	.50		
22	.50	.47		
25	.60	.40		
26	.45	.54		
27	.61	.44		
Cumulative Variance	27.32	12.88	4.26	44.26

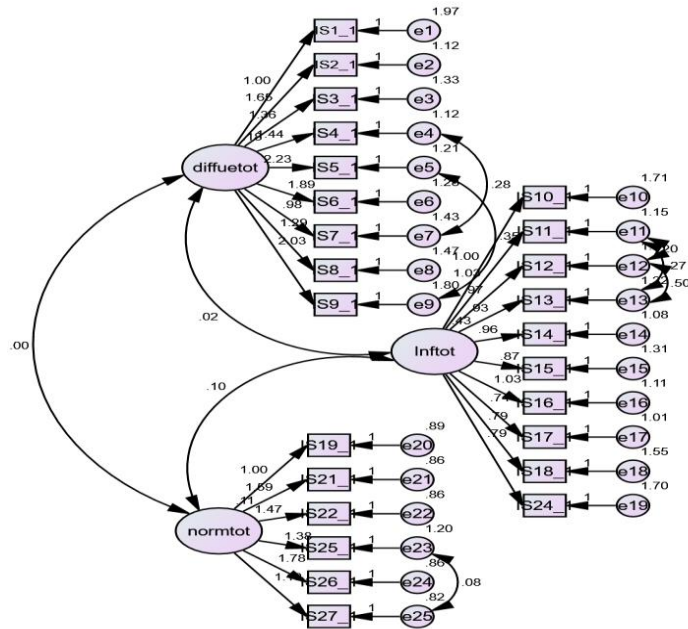


Fig 1. CFA for identity style inventory

Figure 1 demonstrates the factor loading and covariates for identity style inventory. All the fit indices for Identity Style Inventory were found satisfactory. The values denoted to fit indices were .925 (GFI), .909 (AGFI), .848 (TLI), and .828 (CFI) accordingly. The value of mean square error of approximation was (RMSEA=.04) which was less than .06. All other model fit indices was also found in acceptable range.

Discussion

During adolescents' identity development is an essential task that everyone has to gone through. Adolescence is the critical period for identity development. Queries relevant to identity can arise at any phase of life but adolescence is the period when these issues frequently arise (Whitbourne, Sneed, & Sayer, 2009). Indeed, this is the time of life that has traditionally been "set aside" for identity development (Arnett, 2000).

There are number of theories in psychology explaining the process of identity development and there are also measuring tools available to measure that process. Among those measuring tool Berzonsky's identity style inventory is prominent one. The empirical studies, focusing on Berzonsky's identity style model, have contributed to the understanding of identity formation processes in different culture (Berzonsky et al., 2013; Crocetti, Rubini, Berzonsky, & Meeus, 2009).

When researcher plans to investigate any variable, at that time already available instruments with sound and satisfactory psychometrics can save a lot of time and effort. However, before using that instrument, one need to ensure that content of scales are culturally relevant and understandable for the target population if it is not so researcher need to translate that instrument into target language before using it for research purpose. Normally, direct translation of an instrument from one language to another does not guarantee content equivalence of the translated scale (Brislin, 1970; Sechrest & Fay, 1972). Instead of that back-translation of an instrument is essential for its validation and translation (McDermott & Palchanes, 1992; Jones, Lee, Phillips, Zhang, & Jaceldo, 2001; John, Hirsch, Reiber, & Dworkin, 2006).

Keeping the purpose of translation in the field of research current study was planned to translate and adapt Identity style inventory V (ISI V) in Urdu within the indigenous context of Pakistan. Revised identity style inventory has been already investigated in Pakistan by Tariq (2011) but the factor structure of scale was explored in English language among adolescents. On the other hand present study explored the factor structure of ISI V after translating it into Urdu language and MAPI guidelines for Back Translation have been used for translating the scale (Water et al., 2006).

Identity style inventory is comprised of three identity styles informational identity style, normative identity style, and diffuse identity style. Considering the point, principle component exploratory factor analysis was executed in order to explore the factor structure of ISI V. EFA is the basic technique used to detect the structure and organize different factors in a variable (Field, 2005). The results of EFA showed different factor structure in comparison to original one especially in normative style.

As for diffuse identity style nine items were loaded in factor one which is according to the original factor structure. However, for informational style there were 10 items which loaded on second factor, in original scale this style is comprised of nine items, item

number 24 was loaded on informational identity style after the results of EFA. Item number 24 was originally the part of normative style. This modification in trends of item pattern may be explained by looking back into Berzonsky's (1992) explanation of informative style as the positive way processing and answering to questions related with individual's identity and linking this within our context; we can explain these modifications as in Pakistani culture a preference for situations in which one can show reliance on social norms is considered active and positive way to answer problems related to identity. Additionally, being an adolescent in collectivist culture (Pakistan) adoption of existing values for explaining and processing self-related issues is considered as a constructive way of developing identity therefore such items showed high loading on information style (Kagitcibasi, 1999). Furthermore these results can also be explained from the results of Tariq (2012) study, that study also found different factor structure from the original one. Third factor emerged from results of EFA was normative style, only six items attained significant factor loading, other items having factor loading less than 3 have been detained from the scale in current study.

After exploring factor structure, psychometrics properties have been analyzed. Reliability analysis demonstrated satisfactory reliabilities of informational and diffuse identity style but for normative style that reliability was .60. One reason for low reliability can be few numbers of items as it only has six items. Berzonsky (2011) too has explained the fact that there are reliabilities issues for translated versions especially for normative scale. Moreover, Tariq (2012) also found $\alpha = .63$ for normative identity style. According to Plummer and Tanis (2015) this is not a rule of thumb that low value of alpha is always an indication of an unsatisfactory instrument. He termed (.58 –.97) this range of reliability as satisfactory.

Final step for data analysis was Confirmatory factor analysis (CFA), which was performed to confirm the factor structure that was appeared in EFA. CFA is basically used to confirm the measurement model. The purpose of CFA is to explain how well the data supports the factor structure drawn from exploratory factor analysis of ISI-5 for Pakistani sample. For identity style inventory the three factor model arisen in EFA was confirmed in CFA with good model fit indexes. The most commonly reported indices were taken as reference for good model fit including CFI, GFI, TLI, and RMSEA with chi-square value. The results suggested the existence of identity style among our sample but with few modifications in pattern of items in each subscale.

As discussed earlier, these modifications might be understood as Berzonsky (1992) explained these styles as an individual-differences process perspective focuses on an individual's characteristic approach to decision-making and problem solving related to identity issues therefore the definition of styles change by changing the context. Number of studies (e.g., Berzonsky & Ferrari, 2009; Kunnen & Bosma, 2000) identified the conflict between identity and environment which in turn related with identity change and Berzonsky (1992) suggests that successful adaptation is required to reduce such conflicts. Therefore, the definition of this successful adaptation also changes from context to context that's why we have different pattern of items in each style for our culture.

Conclusion

In conclusion it is explained that identity style inventory has good factor structure in indigenous culture with few modifications. EFA confirmed three factors that is diffuse identity style, informational identity style and normative identity style. Diffuse identity style emerged with nine items, informational style with ten items and normative style emerged with six items. Furthermore, three factor model emerged in EFA was confirmed in CFA with good model fit indexes.

Limitations and Suggestions

There are certain limitations of current study. The most concerning limitation is that sample of study was only taken from Punjab the results can be more applicable if in future adolescents from all over the Pakistan will be the part of study. One more limitation is that scale has not been validated in current study; future researchers can find-out convergent and divergent validity.

Implications

Present study has important implications in academic and practical settings. On the other side the current study would provide help to counselors, teachers and researchers so that they can pay attention to the problems of mental health, identity and motivation of adolescents. Study will also provide help and guidance for parents in resolving identity issues of their children. Current research will also helpful for researchers for using identity style inventory in Urdu language.

References

- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*, 469-480.
- Berzonsky, M. D. (1992). *Identity style inventory (ISI-3): Revised version*. Department of Psychology, State University of New York, USA. Retrieved from <http://w3.fiu.edu/srif/archivedpagesjk/berzonsky/berzonskyisi3.rtf>
- Berzonsky, M. D. (2003). Identity Style and well-being: Does commitment matter? *Identity: An International Journal of Theory and Research*, *3*, 131-142.
- Berzonsky, M. D., & Kuk, L. S. (2000). Identity status, identity processing style, and the transition to university. *Journal of Adolescent Research*, *15*, 81-98.
- Berzonsky, M. D. (1990). Self-construction over the life-span: A process perspective on identity formation. In G. J. Neimeyer & R.A. Neimeyer (Eds.), *Advances in personal construct psychology* (Vol. 1, pp. 155-186). Greenwich, CT: JAI Press.
- Berzonsky, M. D. (2008). Identity formation: The role of identity processing style and cognitive processes. *Personality and Individual Differences*, *44*, 645-655. doi.10.1016/j.paid.2007.09.024
- Berzonsky, M. D. (2011). A social-cognitive perspective on identity construction. In S.J. Schwartz, K. Luyckx, & V. Vignoles (Eds.), *Handbook of identity theory and research: Structures and processes* (Vol. 1, pp. 55-76). London, England: Springer. doi.10.1007/978-1-4419-7988-9_3
- Berzonsky, M. D., & Ferrari, J. R. (2009). A diffuse-avoidant identity processing style: Strategic avoidance or self-confusion? *Identity: An International Journal of Theory and Research*, *9*, 145-158.
- Berzonsky, M. D., & Kinney, A. (2008). Identity processing style and defense mechanism. *Polish Psychological Bulletin*, *39*, 111-117.
- Berzonsky, M. D., & Neimeyer, G. J. (1994). Ego identity status and identity processing orientation: The moderating role of commitment. *Journal of Research in Personality*, *28*, 425-435.
- Berzonsky, M. D., & Sullivan, C. (1992). Social-cognitive aspects of identity style: Need for cognition, experiential openness, and introspection. *Journal of Adolescent Research*, *7*, 140-155.
- Berzonsky, M. D., & Kuk, L. S. (2005). Identity style, psychosocial maturity, and academic performance. *Personality and Individual Differences*, *39*(1), 235-247. doi. 10.1016/j.paid.2005.01.010
- Berzonsky, M. D., Branje, S. J. T., & Meeus, W. (2007). Identity processing style, psychosocial resources, and adolescents' perceptions of parent-adolescent relations. *Journal of Early Adolescence*, *27*, 324-335.

- Berzonsky, M. D., Soenens, B., Luyckx, K., Ilse, S., Papini, D. R., & Goossens, L. (2013). Development and validation of the revised identity style inventory (ISI-5): Factor structure, reliability, and validity. *Psychological Assessment, 25*(3), 893-904. doi:10.1037/a0032642
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology, 1*, 185-216.
- Crocetti, E., Rubini, M., Berzonsky, M. D., & Meeus, W. (2009). The identity style inventory – Validation in Italian adolescents and college students. *Journal of Adolescence, 32*, 425-433.
- Crocetti, E., & Shokri, O. (2010). Iranian validation of the identity style inventory. *International Journal of Testing, 10*, 185-199. doi:10.1080/1530505090343596
- Duriez, B., & Soenens, B. (2006). Personality, identity styles, and religiosity: An integrative study among late and middle adolescents. *Journal of Adolescence, 29*, 119-135.
- Duriez, B., Soenens, B., & Beyers, W. (2004). Personality, identity styles, and religiosity: An integrative study among late adolescents in Flanders (Belgium). *Journal of Personality, 72*, 877-910.
- Field, A. (2005). Reliability analysis. In: A. Field (Ed.), *Discovering statistics using SPSS (2nd ed.)*, Sage, London.
- Hassan, B., Vignoles, V. L., & Schwartz, S. J. (2018). Researching identity styles In Pakistan: Confirmatory factor analysis and associations with commitment and value priorities. *Identity: An International Journal of Theory and Research, 1*-15. <https://doi.org/10.1080/15283488.2018.1487843>
- Hejazi, E., Shahraray, M., Farsinejad, M., & Asgary, A. (2009). Identity styles and academic achievement: Mediating role of academic self-efficacy. *Social Psychological Education, 12*, 123-135.
- Jakubowski, T. G., & Dembo, M. G. (2004). The relationship of self-efficacy, identity style, and stage of change with academic self-regulation. *Journal of College Reading and Learning, 35*, 7-24.
- John M. T., Hirsch C., Reiber T., & Dworkin S. F. (2006). Translating the research diagnostic criteria for temporo mandibular disorders into German: evaluation of content and process. *Journal of Orofacial Pain, 20*, 43-52.
- Jones, P.S., Lee, J. W., Phillips, L. R., Zhang, X. E., & Jaceldo, K. B. (2001). An adaptation of Brislin's translation model for cross - cultural research. *Nursing Research, 50*, 300-304.
- Kagitçibasi, C. (1999). The model of family change: A Rejoinder. *International Journal of Psychology, 34*(1), 15-30.
- Kunnen, E. S., & Bosma, H. A. (2000). Development of meaning making: A dynamic systems approach. *New Ideas in Psychology, 18*(1), 57-82.

- McDermott, M. A. & Palchanes, K. (1992). A process for translating and testing a quantitative measure for cross-cultural nursing research. *Journal of the New York State Nurses Association*, 23, 12-15.
- Nisbett, R. D., & Ross, L. (1980). *Human inference: Strategies and shortcomings of social judgment*. Englewood Cliffs, NJ: Prentice-Hall.
- Nurmi, J. E., Berzonsky, M. D., Tammi, K., & Kinney, A. (1997). Identity processing orientation, cognitive and behavioral strategies and well-being. *International Journal of Behavioral Development*, 21, 555-570.
- Plummer, J. D. & Tanis O. A. (2015). Pre-service teachers developing coherent inquiry investigations in elementary astronomy. *Science Education*, 99(5), 932-957.
- Schwartz, S. J. (1996). The structure of identity consolidation: multiple correlated construct or one super ordinate construct? *An international Journal of Theory & Research*, 2, 7-58.
- Seaton, C. L., & Beaumont, S. L. (2008). Individual differences in identity styles predict proactive forms of positive adjustment. *Identity: An International Journal of Theory and Research*, 8, 249-268.
- Sechrest, L., & Fay, T. L. (1972). Problems of translation in cross-cultural research. *Journal of Cross-Cultural Psychology*, 3, 41-56.
- Smits, I., Soenens, B., Luyckx, K., Duriez, B., Berzonsky, M., & Goossens, L. (2008). Perceived parenting dimensions and identity styles: Exploring the socialization of adolescents' processing of identity-relevant information. *Journal of Adolescence*, 4, 23-41.
- Soenens, B., Duriez, B., & Goossens, L. (2005). Social-psychological profiles of identity styles: Attitudinal and social-cognitive correlates in late adolescence. *Journal of Adolescence*, 28, 107-125.
- Tariq, S. (2012). *Identity styles, causality orientations and psychological wellbeing among adolescents: A cross cultural comparison* (Unpublished doctoral dissertation). National Institute of Psychology, Quad-i-Azam University, Islamabad, Pakistan.
- Waters, Davis, Boyd, Reddihough, Mackinnon, Graham, Lo, Wolfe, Stevenson, Bjornson, Blair & Ravens-Sieberer, (2006). CP QOL-Child Translation Guidelines
- Weigert A. J. (1988). To Be or Not: Self and Authenticity, Identity and Ambivalence. In: Lapsley D. K., Power F. C. (Eds), *Self, ego, and identity*. New York: Springer.
- Weigert, A. J., Teitge, J. S., & Teitge, D. W. (1986). *Society and identity: Toward a sociological psychology*. Cambridge, MA: Cambridge University Press.

- Whitbourne, S. K., Sneed, J. R., & Sayer, A. (2009). Psychosocial development from college through midlife: A 34-year sequential study. *Developmental Psychology, 45*, 1328-1340.
- Xu, S. (2009). What are the Relations between identity styles and adolescence's academic achievement? A study of college students at a private University in China. *International Journal of Adolescence and Youth, 14*(4), 299-311. doi.10.1080/02673843.2009.9748011

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