

THE ASSOCIATIONS BETWEEN NEED FOR COGNITIVE CLOSURE AND BASIC VALUES

Betül Dilara ŞEKER*
Emine AKMAN**

ABSTRACT

The cognitive needs of individuals are considered to be a part of the substructure of basic values, but there is no research to test this association using a Turkish sample. In this research, the relationship between need for cognitive closure and Schwartz's ten values was examined in the context of individual differences within a Turkish sample. The need for cognitive closure and basic values of 286 male and female participants were measured from a university in Turkey. Results of the study indicated that the need for cognitive closure was positively associated with valuing tradition, conformity and security; negatively associated with valuing stimulation. Additionally, the need for cognitive closure was found to be unrelated to values associated with power, achievement, hedonism, self-direction, universalism and benevolence.

Keywords: *Need for Cognitive Closure, Values, Turkish Sample.*

ÖZET

BİLİŞSEL KAPALILIK İHTİYACI VE TEMEL DEĞERLER ARASINDAKİ İLİŞKİLER

Bireylerin bilişsel ihtiyaçları ile temel değerleri birbiriyle ilişkili yapılar olarak düşünülmesine rağmen bu ilişkiler Türk örnekleme incelenmemiştir. Bu çalışmada, Bilişsel Kapalılık İhtiyacı ile Schwartz'ın ortaya koyduğu değerler arasındaki ilişki bireysel farklılıklar bağlamında Türk örnekleminde incelenmiştir. Türkiye'de üniversite öğrencisi olan 286 kadın ve erkekte bilişsel kapalılık ihtiyacı ve temel değerlere ait ölçümler alınmıştır. Çalışma bulguları, bilişsel kapalılık ihtiyacı ile geleneksellik, konformite ve güvenlik değerlerinin pozitif; uyum değerinin ise negatif ilişkili olduğunu göstermiştir. Ek olarak, bilişsel kapalılık ihtiyacı, güç, başarı, hazcılık, öz yönlendirme, evrensellik ve yardım severlik ile ilişkili bulunmamıştır.

Anahtar Kelimeler: *Bilişsel Kapalılık İhtiyacı, Değerler, Türk Örnekleme.*

* Yrd. Doç. Dr., Celal Bayar Üniversitesi Psikoloji Bölümü (dilaraseker@hotmail.com)

** Araştırma Görevlisi, Celal Bayar Üniversitesi Psikoloji Bölümü (emi.akman@gmail.com)

1. Introduction

The phenomenon of the need for cognitive closure combines both cognitive and social processes. The need for cognitive closure is closely linked with one's epistemic motivations, that is implicit or explicit goals one possesses with respect to knowledge (Kruglanski, 2004: 3). The need for cognitive closure represents a general and universal aspect of human functioning, influencing the judgments and decisions of individuals with regard to the social world. Individuals acquire a variety of knowledge about daily affairs that guides their decisions, activities and judgments. In this regard, there could be a connection between values and closure needs. Individuals use values to measure whether actions, events or people are desirable and cause positive or negative feelings (Pieurko, Schwartz & Davidov, 2011). For the reason that, values have an important role on social cognitive and behavioral tasks related the selection, interpretation, evaluation, and justification of one's own behaviors and attitudes (Schwartz, Sagiv & Boehnke, 2000). Values could be based on socialization, life experience, personality traits and needs (Cable & Parsons, 2001; Schwartz, 1992). Values begin to be developed through early socialization processes and there is a large number of empirical research studies about the important connections between values (Bardi, Calogero & Mullen, 2008; Pieurko et al., 2011), there is a much more limited literature on the link between needs and values. Thus, values may offer deep-rooted epistemic needs similar to the need for cognitive closure which displays the social information processing styles of the individuals (Thorisdottir, & Jost, 2011). Previous studies have investigated the connection between the need for cognitive closure and values (Calogero, Bardi & Sutton, 2009); however, there is no previous research about the relationship between the need for cognitive closure and values based on a Turkish sample.

Lay-epistemic theory (Kruglanski, 1989: 6, 2004: 11) constructs a theoretical framework for the motivational aspects of decision-making, focused on the need for cognitive closure theory that states a general cognitive-motivational predisposition toward the social world. Kruglanski developed the need for cognitive closure theory to explain the individual's urge to reach any definite information at a time of cognitive confusion and uncertainty (Kruglanski, 2004: 5). The need for cognitive closure indicates a strong motive for any kind of certain belief on a given topic that is contrary to confusion and uncertainty (Jost, Glaser, Kruglanski & Sulloway, 2003). There are situational and motivational factors that enhance the cognitive-motivational predispositions toward the social world which is either open and exploratory or closed and immutable (Kruglanski & Webster, 1996). Thus, individuals might have different levels of need for cognitive closure which in itself

is secure, stable and permanent (Roets, Van Hiel & Cornelis, 2006). Specifically, Kruglanski et al. (1997) defined the need for nonspecific cognitive closure, as a content-free motivation to answer a question and avoid from an ambiguous situation. Moreover, in several studies, it was demonstrated that the high need for cognitive closure and low tolerance for ambiguity could be a dispositional trait that affects social behavior, cognitive style and motivational tendencies of the individuals (Chirumbolo, 2002). The related contents with the closure transform the nonspecific closure into a specific need for cognitive closure. The consistency of the need for cognitive closure and certain related attitudes such as stability, clarity, order, and uniformity might provide a conservative predisposition for the individuals who have high levels of need for cognitive closure (Federico, Jost, Pierro, Kruglanski, 2006).

The need for cognitive closure concept is conceived as a continuum that arrays from a strong need for cognitive closure to a strong need to avoid cognitive closure (Chirumbolo, 2002). The driving force towards closure within an individual can differ according to the particular situation those person encounters, which highlights the cost of openness and the benefits of closure: for example time pressure, environmental noise and mental fatigue (Heaton & Kruglanski, 1991; Webster & Kruglanski, 1994). In addition, both contextual and individual factors may cause a motivation to avoid from cognitive closure. As an example, the need for cognitive closure might be costly and might cause some judgmental mistakes for the perceiver. Moreover, the degree of preference may differ from person to person (Kruglanski & Webster, 1996; Roets & Van Hiel, 2011). By this means, the need for cognitive closure is classified as both a situationally induced motivation and a particular dimension of stable individual differences (Mannetti, Pierro, Kruglanski, Tavis, & Bezinovic, 2002). The need for cognitive closure affects both social behavior and cognitive style and reveals cognitive and motivational consequences (Chirumbolo, 2002). The need for cognitive closure is not only a dispositional drive that leads people to act differently when faced with decision-making situations, but may also affect the characteristics of the situation itself (Roets & Van Hiel, 2007).

According to Kruglanski and Webster (1996), the inclination for closure affects information processing when individuals construct their judgments, decisions, and knowledge in two distinct ways, which are the urgency tendency and the permanence tendency. The urgency tendency refers to the inclination to 'seize' quickly on given information to meet closure. On the other hand, the permanence tendency refers to 'freeze' in terms of past knowledge in order to maintain future knowledge. Both seizing and freezing tendencies serve to avoid the lack of closure, maintain knowledge and keep it from recurring. Seizing tendency brings the

situation to a rapid end, whilst freezing tendency allows information to be re-processed and stored (Webster & Kruglanski, 1994; Roets & Van Hiel, 2011). The need for cognitive closure is related with revealing the correspondence bias in attitude attribution, to resist influential attitudes, and to reject opinions (Kruglanski, 1996; Jost et al., 2003). Therefore, according to the lay-epistemic approach on the basis of need for cognitive closure, individuals differ from one another according to varying situations and they might be open to novel information and tend to evaluate different cognitive alternatives (Federico, Jost, Pierro, Kruglanski, 2006).

Webster and Kruglanski (1994) offered the need for cognitive closure as a unitary latent variable which prominents itself in one of five ways: a preference for order; a preference for predictability; discomfort with ambiguity; closed-mindedness; and decisiveness (Mannetti et al., 2002). Although, the existing controversies about the construct of the need for cognitive closure (Neuberg, Judice, & West, 1997), Webster and Kruglanski's five facets of cognitive closure were taken into consideration in the current study. The preference for order refers to the need to gain order and structure and to avoidance of chaos and disorder in one's life. The preference for predictability indicates one's desire for a secure or stable knowledge that can be relied upon across circumstances, and to avoidance of change. The discomfort with ambiguity refers to one's need to have certainty and to avoid confusion. The closed-mindedness points out the need to protect knowledge and to avoidance of confrontation that may arise from alternative opinions or inconsistent evidence. Finally, the decisiveness refers to urgency during decision-making and thus to avoidance of indecision (Webster & Kruglanski, 1994). These five manifestations of the need for cognitive closure reflect a single underpinning mechanism that holds the primary cognitive-motivational forces underlying the need for cognitive closure (Calogero et al., 2009).

The need for cognitive closure affects the processing of new information, the generation of alternative hypotheses and is also associated with a range of social psychological phenomena. Examples of the latter include studies showing that the need for cognitive closure has been found to affect dogmatism (Francis, 2001); authoritarianism (Duck & Hunsberger, 1999; Leak & Randall, 1995); ethnocentrism (Cunningham, Nezlek, & Banji, 2004); political conservatism (Jost et al., 2003; Kimmelmeier, 2008); social judgment (Kruglanski, Pierro, Mannetti, & De Grada 2006); group processes (Federico et al., 2005; Pierro, Mannetti, De Grada, Livi & Kruglanski, 2003); stereotypical thinking (Watson, Morris, Hood, JR. Miller & Waddell, 1999); conformism and norm adherence (Chao, Zhang, & Chiu, 2009). The need for cognitive closure has also been examined in the context of various

cultures (Kossowska, Van Hiel, Chun & Kruglanski, 2002; Mannetti et al., 2002; Moneta & Yip, 2004; Şeker & Akman, 2015). Thus, we propose that the need for knowledge that guides individuals' decisions, activities and judgments may be related with the adoption of different value types.

Basic values are defined as cognitive representations of desirable, contextual and relatively stable goals that adapt individuals' or groups' perceptions, attitudes, and behaviors (Purkayastha et al., 2011). Values have prominent roles in social cognitive and behavioral tasks that offer the selection, interpretation, evaluation and justification of one's own behavior and that of others (Schwartz, Sagiv & Boehnke, 2000). Values begin to be developed through early social interactions with different role models. A new social environment can affect the progress of composition of one's values structure and socialization efforts can change the values (Cable & Parsons, 2001). The transmission of values to following generations leads to similarities of value patterns within cultures (Parks & Guay, 2009). Schwartz's theory of values provides conceptual, methodological and empirical contributions to frame a set of universal values in social psychology (Gouveia, Milfont, & Guerra, 2014; Schwartz, 2011). Individuals could use values to evaluate actions, events or people are desirable and cause positive or negative feelings (Purkayastha et al., 2011). The main difference between values that have dynamic relationships with each other is the type of motivational goal they express.

Schwartz's value theory has promoted multiple configurations of the value domain which are explained with seven (Schwartz & Bilsky, 1987), ten (Schwartz, 1992), eleven (Schwartz, 1994) or nineteen (Schwartz et al., 2012) motivational value types. Schwartz assumed ten types of value for distinct motivational goals: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity and security (Schwartz, 1992). Although, there are multiple configurations of value types, Schwartz (1992) specified the structure of the dynamic relations between values as being based on a circular motivational continuum reflecting the conflict and compatibility between the values. The placement and closeness of the values around the circular continuum make them more compatible in accordance to motivations and thus the more likely that the similar motivations express or attain both values. Values which are more distant in this circular continuum might have more conflicting motivations and might express or attain discriminant actions (Purkayastha et al., 2011). Indeed, each value is associated with adjacent values in a positive direction and associated with opposite values in a negative direction within this circular structure (Calogero et al., 2009). Therefore, the whole of values are associated with the others in the integrated structure of values

continuum. The structure of values is organized along two bipolar dimensions as self-enhancement versus self-transcendence and openness to change versus conservatism. The power and achievement value types that encourage and legitimize the pursuit of self-interest, oppose the universalism and benevolence types of value that emphasize concern for the welfare of others in the self-enhancement versus self-transcendence dimension. In the openness to change versus conservatism dimension, the self-direction and stimulation value types that support changes, new ideas and experiences, are contrary to conservation values which oppose the security, conformity, and tradition value types that supports attaining the status quo and avoiding a threat. In addition, hedonism values take place in both of the openness and self-enhancement dimensions (Purko et al., 2011).

The one of the most important contents of the Schwartz value theory is the type of motivational goal that values express, whereas the existence of a structure with dynamic relations among these different value types. The set of 10 values has attempted to explain a wide variety of attitudes, behaviors, and subjective states across many nations (Schwartz & Bardi, 2001). This structure of values has been tested in more than 200 samples from more than 70 cultures and indicates the underlying motivations that may include a universal principle by which they are organized (Schwartz, 1992; Schwartz, 1994; Schwartz & Sagiv, 1995). Although the attributed importance of values has been recognized, it is possible that people organize their values with the same structure of motivational oppositions and agreements (Schwartz, et al., 2000). Consequently, the Schwartz (1992) value theory suggests a near-universal system of values that allows for cross-cultural comparison. The Schwartz (1992) value theory derives the following 10 personal values, according to the distinct motivational goals that they express. Each value type is defined in accordance to the central goals of the single value. (Schwartz et al., 2000). Specific values types appear in parentheses following the definitions.

Power: Social status and prestige, control or dominance over people and resources (authority, social power, wealth, preserving ones' public image). Achievement: Personal success through demonstrating competence according to social standards (ambitious, successful, capable, influential). Hedonism: Pleasure or sensuous gratification for oneself (pleasure, enjoying life, self-indulgent). Stimulation: Excitement, novelty, and challenge in life (daring, a varied life, an exciting life). Self-Direction: Independent thought and action - choosing, creating, exploring (creativity, freedom, independent, choosing own goals, curious). Universalism: Understanding, appreciation, tolerance, and protection for the welfare of all people and for nature (equality, social justice, wisdom, broad-minded,

protecting the environment, unity with nature, a world of beauty). Benevolence: Preservation and enhancement of the welfare of people with whom one is in frequent personal contact (helpful, honest, forgiving, loyal, responsible). Tradition: Respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provides (devout, respect for tradition, humble, moderate). Conformity: Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms (self-discipline, politeness, honoring parents and elders, obedience). Security: Safety, harmony, and stability of society, of relationships, and of self (family security, national security, social order, clean, reciprocation of favors) (Piturko et al., 2011).

Schwartz (1992) described values as desirable, trans-situational goals varying in importance that serve as guiding principles in people's lives (Roccas et al., 2002; Saroglou, Delperre & Dernelle, 2004). Also, Schwartz (1994) mentioned needs as one of the universal sources of values and, as with needs, values motivate actions. However, unlike needs, values are intrinsically desirable and must be represented cognitively in ways that enable people to communicate about them (Roccas et al., 2002). Values may offer deep-rooted epistemic needs, for instance, the need for cognitive closure indicates the social information processing of the individuals (Saroglou & Dupuis, 2006; Thorisdottir, Jost, Liviatan, & Shrout, 2007; Thorisdottir & Jost, 2011). Although values have been used to explain a variety of attitudes, behaviors and subjective states across many nations, there is a few empirical researches on values as based on the need for cognitive closure (Calogero et al., 2009). Hence, we suggest that the need for cognitive closure may be linked with maintenance of specific value dimensions in the context of the attainment or avoidance of cognitive closure in terms of individual differences. Values as criteria for selection and evaluation have a prominent role during the acquisition of many social cognitive and behavioral tasks. Thus, values may provide more deep-rooted epistemic needs, such as the need for cognitive closure that reflect the social information processes of the individuals more broadly (Calogero et al., 2009; Saroglou & Dupuis, 2006; Thorisdottir & Jost, 2011). Although the set of values has been used to explain a wide variety of attitudes, behaviors, and subjective states across many nations (Schwartz & Bardi, 2001), there is little empirical research on values as based on the need for cognitive closure (Calogero et al., 2009). In this direction, we suggest that the need for cognitive closure may be linked with the maintenance of specific value dimension about the attainment or avoidance of cognitive closure in terms of individual differences.

Hypothesis and Study Overview

Previous research demonstrated positive associations between the need for cognitive closure and preferences for conformity and consensus-seeking (Kruglanski, 2004; Kruglanski et al., 2006), conservative ideology and related attitudes (Chirumbolo, Areni, & Sensales, 2004; Kossowska & Van Hiel, 2003; Jost, Kruglanski, & Simon, 1999; Van Lange, Bekkers, Chirumbolo, & Leone, 2012), and religiosity (Saroglou, 2002). The need for cognitive closure would seem to correspond to conservation values, which translate into preserving the status quo and protecting close relationships with others, institutions, and traditions. Along these lines, values of the conservation dimension could display a positive correlation with the need for cognitive closure. Thus, we hypothesized that the need for cognitive closure would show a positive correlation with values reflecting conservation: tradition, conformity, and security.

The association between closed-mindedness and openness to new experience is always negative (Webster & Kruglanski, 1994). Accordingly, openness to change values such as self-direction, stimulation and, in particular, hedonism, all of which favor change and encourage the pursuit of new ideas and experiences, should be negatively correlated with the need for cognitive closure. The empirical literature related to the need for cognitive closure indicated a negative association with cognitive complexity and openness to experience (Jost et al., 2003; Saroglou, 2002; Webster & Kruglanski, 1994); a tendency to change the status quo (Mannetti, Pierro, & Kruglanski, 2007); openness to novel information (Federico et al., 2006). Therefore, we predicted that the need for cognitive closure would be negatively correlated with self-direction and stimulation values. Additionally, the need for cognitive closure was not expected to be associated with self-transcendence, as seen in values such as benevolence and universalism, and/or self-enhancement revealed through the values of power and achievement. Although we derived hypotheses for the relations between the need for cognitive closure and values, these hypotheses were not included in the specific dimensions of the need for cognitive closure scale. Finally, political ideology and religiosity were also included as control variables when testing the pattern of relations between the need for cognitive closure and values.

2. Method

2.1. Participants and Procedure

The participants of the study were 286 students (145 females and 141 males) between ages of 18 and 26 ($M = 19.80$, $SD = 1.44$) from different departments of Celal Bayar University. Participants were told that they were participating in a study about cognitive processes and values. The questionnaire application lasted for three months. Participation was on a voluntary basis and anonymity was maintained. The average completion time of questionnaire was 15 minutes. All participants received course credit for their participation of the current study.

2.2. Measures

2.2.1. The Need for Cognitive Closure Scale

The need for cognitive closure was measured with the recently adapted Turkish version of Webster and Kruglanski's (1994) need for cognitive closure scale (Seker & Akman, 2015). The Turkish version of scale is comprised 36 items from all original scales of the need for cognitive closure questionnaire. The Turkish α of the scale was found to consistent with the unidimensionality of the need for cognitive closure questionnaire (Seker & Akman, 2015). A total need for cognitive closure scale score was calculated by summing 36 items ($\alpha = .79$). Additionally, five subscale scores were computed by summing the subscale items: Preference for order and structure ($\alpha = .83$), preference for predictability ($\alpha = .71$), discomfort with ambiguity ($\alpha = .72$), closed-mindedness ($\alpha = .58$), and decisiveness ($\alpha = .59$). All items are rated on a 6-point scale ranging from 1 (strongly disagree) to 6 (strongly agree), with higher scores of the need for cognitive closure scale reveals a greater need for cognitive closure.

2.2.2. Schwartz Value Survey

Schwartz (1992) designed a scale to determine the importance of each value for the respondent which has been widely used in cross-cultural research on values (Güngör, Bornstein, Phalet, 2012; Meuleman & Billiet, 2011). The shortened list contained the items that Schwartz and Sagiv (1995) have demonstrated to have acceptable equivalence in meaning across cultural groups. All participants in this study completed the Turkish version of the Schwartz Value Survey (Kaya, 2003). Items of the scale expressed the ten value indexes. Each of the ten index ratings were calculated through the mean importance ratings of the value items which represent each particular value. Participants rated each value item on a 6-point scale from 1

(opposed to my principles) to 6 (of supreme importance). Internal reliability of the survey was found to be consistent with previous findings ($\alpha = .86$): power ($\alpha = .54$), achievement ($\alpha = .70$), hedonism ($\alpha = .67$), stimulation ($\alpha = .54$), self-direction ($\alpha = .62$), universalism ($\alpha = .73$), benevolence ($\alpha = .51$), conformity ($\alpha = .59$), tradition ($\alpha = .61$), and security ($\alpha = .59$). Low alphas are not exceptional in value measures (Schwartz & Rubel, 2005), and the results of this study provided an indication of acceptable internal consistency and homogeneity for research purposes on values.

2.2.3. Control Variables

Findings of the previous research indicated that the high need for cognitive closure accepted as to be related with (1) right-wing political orientations; (2) right-wing policy attitudes; (3) authoritarianism; (4) nationalism and militarism predispositions; and (5) religious conservatism (Chirumbolo & Leone, 2010; Jost et al., 2003; Golec & Federico, 2004; Webster & Kruglanski, 1994; Zavala, Golec, Cislak, & Wesolowska 2010). In addition, there is a relevancy between tendencies to eliminate the uncertainty and threat, and resistance to change and acceptance of inequality which are the two core aspects of right-wing ideology (Thorisdottir et al., 2007). Left-right political orientation was obtained with a “where would you place yourself on this scale, where 1 means the left and 7 means the right?” question.

The empirical studies based on measures of general religiosity reveal that there is an always positive association between religiosity and close-mindedness (Saroglou, 2002). In the meta-analysis study of Saroglou, Delperre & Dernelle, (2004) religion was found to be positively correlated with tradition and conformity, security and benevolence; and negatively correlated with hedonism, stimulation, and self-direction; and not significantly related with achievement, power, and universalism in various cultures. In addition, to political orientation, the religiosity of the participants was measured with four questions about religiosity (scale from 1 = not at all religious to 7 = very religious). The average of four questions was calculated as religiosity score in this study.

3. Results

3.1. Relations between the Need for Cognitive Closure and Schwartz’s Values

As presented in Table 1, a series of zero-order correlations demonstrated that higher need for cognitive closure was positively correlated with valuing tradition, $r(128) = .38, p < .001$; conformity, $r(128) = .33, p < .001$; and security, $r(128) = .30, p < .02$. On the other hand, lower need for cognitive closure was found to be

negatively correlated with valuing stimulation, $r(128) = -.20, p < .03$. In addition, need for cognitive closure was generally not associated to power, achievement, self direction, hedonism, benevolence, and universalism values. Also, as demonstrated in Table 1, a series of partial correlations between the need for cognitive closure and values controlling for age, gender, religiosity, and political orientation indicated that the size of the associations remained broadly consistent when controlling for these four potential confounding variables.

3.2. Relations between the Need for Cognitive Closure Subscales and Schwartz's Values

A series of zero-order correlations results showed a various correlations between the five dimensions of the need for cognitive closure (NFCC) and Schwartz's ten values (see Table 1). The preference for order (PO) dimension of the need for cognitive closure was differentially associated with Schwartz's values (see Table 1). The preference for order subscale was found to be positively associated with valuing tradition, $r(128) = .61, p < .001$; conformity, $r(128) = .51, p < .001$; and security, $r(128) = .34, p < .02$. In addition, the preference for order and achievement value was found to be related positively, $r(128) = .20, p < .03$. The preference for predictability (PP) subscale was found to be associated with conservation values similar preference for order dimension. Preference for predictability subscale was positively associated with tradition, $r(128) = .29, p < .001$; conformity, $r(128) = .35, p < .001$; and security values, $r(128) = .28, p < .001$. In contrast, the preference for predictability was negatively associated with openness to change values that are stimulation $r(128) = -.32, p < .001$; and self direction, $r(128) = -.18, p < .04$. The discomfort with ambiguity (DA) subscale was only positively related with self direction, $r(128) = .19, p < .04$; and universalism values, $r(128) = .18, p < .05$. The closed mindedness (CM) subscale was associated negatively with openness to change and self transcendence values. Zero order correlation results indicated that, the closed mindedness subscale is negatively related with stimulation, $r(128) = -.25, p < .01$; self direction, $r(128) = -.36, p < .001$; universalism, $r(128) = -.27, p < .01$; and benevolence values, $r(128) = -.31, p < .001$. The decisiveness (DE) subscale was not associated significantly with none of the ten values. Only, the preference for order and the preference for predictability subscales were positively correlated with valuing security, and only the closed mindedness subscale was found to be related valuing tradition in a positive direction. On the assumption that, preference for order subscale of need for cognitive closure may be relevant to the pursuit of conservation values.

Table 1. Zero-order Correlations for Values with Overall Need for Cognitive Closure and Subscales

		NFCC	PO	PP	DA	CM	DE
Power	Zero order	.06	.12	-.05	.16	-.03	-.03
	(partial)	.07	.15	-.03	.18*	-.01	-.06
Achievement	Zero order	.12	.20*	-.01	.13	-.05	.02
	(partial)	.12	.21*	-.01	.13	-.03	.02
Hedonism	Zero order	-.05	-.03	-.04	.16	-.08	-.09
	(partial)	-.05	-.02	-.05	.12	-.13	-.04
Stimulation	Zero order	-.20*	.00	-.32**	-.02	-.25**	.00
	(partial)	-.19*	.00	-.33*	.00	-.23**	.00
Self Direction	Zero order	-.08	.04	-.18*	.19*	-.36**	.07
	(partial)	-.08	.05	-.18*	.18*	-.38**	.07
Universalism	Zero order	-.02	.15	.05	.18*	-.27**	-.17
	(partial)	-.03	.15	.03	.16	-.31**	-.13
Benevolence	Zero order	-.14	.03	.01	.01	-.31**	-.13
	(partial)	-.13	.04	.00	.01	-.30**	-.13
Tradition	Zero order	.38**	.61**	.29**	.09	-.12	-.01
	(partial)	.41**	.63**	.26**	.11	.02	.01
Conformity	Zero order	.33**	.51**	.35**	.09	-.03	-.07
	(partial)	.34**	.52**	.34**	.08	-.02	-.06
Security	Zero order	.22*	.34**	.28**	.09	-.13	-.06
	(partial)	.22*	.32**	.26**	.09	-.12	-.01
	Mean (SD)	4.03 (.43)	4.75 (.91)	4.70 (.75)	4.87 (.61)	2.41 (.67)	3.42 (.89)

4. Discussion

In this study, the relationship between the need for cognitive closure and values was examined using a Turkish university student sample. Specifically, we hypothesized that high need for cognitive closure would be related with the cluster of values associated with conservation, whilst we considered low need for cognitive closure would be related to the group of values expressing openness to change. Indeed, the results of the current study consistent with the previous research of Calogero et al., (2009) indicated that high levels of need for cognitive closure would drive individuals to retain values related with tradition, conformity and security; whereas low need for cognitive closure would drive individuals to value and sustain novel experiences, creativity, independent thought and action. The derived relationships between the need for cognitive closure and values did not significantly change after controlling for variables of age, gender, religiosity and political orientation. The associations between conservation and openness to change values

and the need for cognitive closure could be a pattern of relationship. This pattern may support the idea that tendencies to protect things as they offer individuals the opportunity to obtain cognitive closure, whereas openness to new experiences may satisfy individual needs to attain cognitive openness. Moreover, the findings of this study are coherent with Kruglanski's need for cognitive closure theory which posits that there are situational factors that may encourage a general cognitive-motivational orientation toward the social world (Kruglanski & Webster, 1996).

Whilst the main hypotheses of the study concerned the need for cognitive closure in general, supplementary findings were also obtained from the relationships between the need for cognitive closure subscales and values. The preference for order and preference for predictability subscales of the need for cognitive closure were related to conservation values. According to this, valuing security, conformity and tradition roots the typical epistemic motives within individuals' need for order and prediction. The correlation coefficients for preference for order subscale were higher than for preference for predictability subscale with values, and the highest association between tradition and preference for order is an important finding which should be emphasized. In addition, the association between tradition and the need for cognitive closure has the highest value among all the other values. Calogero et al. (2009) reported that valuing tradition has the weakest correlation with the need for cognitive closure. As valuing tradition has an ideological structure because of the strong relationship with religion, it would seem that the need for cognitive closure is not an ideologically based structure. This contradictory result may derive from the cultural (religious) properties of the Muslim participants in our study. Many studies carried out in different cultures have indicated that religious people tend to favor values that promote conservation of social and individual order; and conversely, they dislike values that promote openness to change and autonomy (Saroglou, Delpierre, & Dernelle, 2004; Meuleman & Billiet, 2011). Research has also indicated that the significance of relations between religion and values depends on socio-economic development, and in a developing country like Turkey religion mainly implies conservative values (Saraglou & Galand, 2004). In the light of such information, the strong association between tradition and the need for cognitive closure became comprehensible.

Two dimensions of the need for cognitive closure were related to stimulation. Thus, aiming to acquire stimulation may contribute to satisfying a need for less order and being open-minded. Additionally, three dimensions were related to self-direction, demonstrating that independent thoughts and actions may correspond to needs for less order, predictability and open-mindedness. In addition to relations

with openness to change and conservation values, preference for order was found to be positively correlated with achievement. The closed mindedness was also related with self-transcendence value dimension suggesting that universalism and benevolence values may lead to open-mindedness. These unexpected relations may be a result of Turkish society's high levels of cultural interdependence and religiosity. Previous findings from different studies indicated that self-transcendence values are high in cultures which are more interdependent and religious such as Turkey (Güngör et al., 2012; Kuşdil & Kağıtçıbaşı, 2000).

There are some limitations that must be considered. First of all, the sample of the current study comprised students, and it would seem relevant to test the hypothesis of the present study within a non-student population. However, the age range of the students involved was considered wide enough to ameliorate this limitation. Secondly, causal pathways between the need for cognitive closure and values are absent, as the correlation method employed did not give results showing a causal relation between the need for cognitive closure and values. However, despite this lack of direction of the significant relationship between any two variables, we interpreted the results on the assumption that the need for cognitive closure motivates the maintenance of values. In order to examine causal relations between the need for cognitive closure and values, experimental research is necessary to test causal pathways. Furthermore, totally unexpected associations emerged between the openness to change and conservation dimensions of the values and some of the subscales of the need for cognitive closure were found to be related to benevolence, universalism, and achievement. These unexpected associations were interpreted as a culturally shaped situation and future research should consider these results within a range of different Turkish samples.

BIBLIOGRAPHY

Bardi, A., Calogero, R. M., & Mullen, B. (2008). "A New Archival Approach to the Study of Values and Value-Behavior Relations: Validation of the Value Lexicon". *Journal of Applied Psychology*, 93, 483-497.

Cable, D. M., & Parsons, C. K. (2001). "Socialization Tactics and Person-organization Fit". *Personnel Psychology*, 54(1), 1-23.

Calogero, R. M., Bardi, A., & Sutton, R. M. (2009). "A Need Basis for Values: Associations between the Need for Cognitive Closure and Value Priorities". *Personality and Individual Differences*, 46(2), 154-159.

Chao, M. M., Zhang, Z. X., & Chiu, C. Y. (2009). "Adherence to Perceived Norms across Cultural Boundaries: The Role of Need for Cognitive Closure and Ingroup Identification". *Group Processes & Intergroup relations*, 13(1) 69-89.

Chirumbolo, A. (2002). "The Relationship between Need for Cognitive Closure and Political Orientation: The Mediating Role of Authoritarianism". *Personality and Individual Differences*, 32(4), 603-610.

Chirumbolo, A., Areni, A., & Sensales, G. (2004). "Need for Cognitive Closure and Politics: Voting, Political Attitudes and Attributional Style". *International Journal of Psychology*, 39(4), 245-253.

Chirumbolo, A., & Leone, L. (2010). "Personality and Politics: The Role of the HEXACO Model of Personality in Predicting Ideology and Voting". *Personality and Individual Differences*, 49(1), 43-48.

Cunningham, W. A., Nezlek, J. B., & Banaji, M. R. (2004). "Implicit and Explicit Ethnocentrism: Revisiting the Ideologies of Prejudice". *Personality and Social Psychology Bulletin*, 30(10), 1332-1346.

Duck, R. J., & Hunsberger, B. (1999). "Religious Orientation and Prejudice: The Role of Religious Proscription, Right-Wing". *The International Journal for the Psychology of Religion*, 9(3), 157-179.

Federico, C. M., Golec, A., & Dial, J. L. (2005). "The Relationship between the Need for Closure and Support for Military Action against Iraq: Moderating Effects

of National Attachment”. *Personality and Social Psychology Bulletin*, 31, 621-632.

Federico, C. M., Jost, J. T., Pierro, A., & Kruglanski, A. W. (2006). *The Need for Closure and Political Attitudes: A Proposal for the 2006 ANES Pilot Study*.

Francis, L. J. (2001). “Christianity and dogmatism revisited: “A Study among Fifteen and Sixteen Year Olds in the United Kingdom”. *Religious Education*, 96, 211-226.

Golec, A., & Federico, C. M. (2004). “Understanding Responses to Political Conflict: Interactive Effects of the Need for Closure and Salient Conflict Schemas. *Journal of Personality and Social Psychology*, 87(6), 750-762.

Gouveia, V. V., Milfont, T. L., & Guerra, V. M. (2014). “Functional Theory of Human Values: Testing its Ontent and Structure Hypotheses”. *Personality and Individual Differences*, 60, 41-47.

Güngör, D., Bornstein, M. H., & Phalet, K. (2012). “Religiosity, Values, and Acculturation: A Study of Turkish, Turkish-Belgian, and Belgian Adolescents”. *International Journal of Behavioral Development*, 36(5), 367-373.

Heaton, A. W., & Kruglanski, A. W. (1991). “Person Perception by Introverts and Extraverts under Time Pressure: Effects of Need for Closure”. *Personality and Social Psychology Bulletin*, 17(2), 161-165.

Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). “Political Conservatism as Motivated Social Cognition. *Psychological Bulletin*, 129(3), 339-375.

Jost, J. T., Kruglanski, A. W., & Simon, L. (1999). “Effects of Epistemic Motivation on Conservatism, Intolerance, and Other System Justifying Attitudes”. In J. M. Levine, L. T. Thompson, D. M. Messick (Eds). *Shared Cognition in Organizations: The Management of Knowledge*, 91-116. New York: Psychology Press.

Kuşdil, M. E., & Kağıtçıbaşı, Ç. (2000). “Türk Öğretmenlerin Değer Yönelimlerine Schwartz Değer Kuramı. *Türk Psikoloji Dergisi*, 15(45), 59-76.

Kaya, A. G. (2003). *Savaşa Karşı Tutumların Normativizm – Hümanizm ve Değerler Çerçevesinde İncelenmesi*. Unpublished Graduate Thesis. İzmir: Ege University.

Kemmelmeier, M. (2008). "Is There a Relationship between Political Orientation and Cognitive Ability? A Test of Three Hypotheses in Two Studies". *Personality and Individual Differences*, 45(8), 767-772.

Kossowska, M., Van Hiel, A., Chun, W., & Kruglanski, A. W. (2002). "The Need for Cognitive Closure Scale: Structure, Cross-cultural Invariance and Comparison of Mean Ratings between European-American and East Asian Samples". *Psychologica Belgica*, 42, 267-286.

Kossowska, M., & Van Hiel, A. (2003). "The Relationship between Need for Closure and Conservative Beliefs in Western and Eastern Europe". *Political Psychology*, 24, 501-518.

Kruglanski, A. W. (1989). *Lay Epistemics and Human Knowledge: Cognitive and Motivational Bases*. New York: Plenum Press.

Kruglanski, A. W. (1996). "Motivated Social Cognition: Principles of the Interface". In E. T. Higgins, A. W. Kruglanski, (Eds). *Social Psychology: Handbook of Basic Principles*, 493-520. New York: Guilford Press.

Kruglanski, A. W. (2004). *The Psychology of Closed Mindedness*. NY: Psychology Press.

Kruglanski, A. W., Atash, M., DeGrada, E., Mannetti, L., Pierro, A., & Webster, D. M. (1997). "Psychological Theory Testing Versus Psychometric Nay-saying: Comment on Neuberg et al. (1997) Critique of the Need for Closure Scale". *Journal of Personality and Social Psychology*, 73(5), 1005-1016.

Kruglanski, A. W., Pierro, A., Mannetti, L., & De Grada, E. (2006). "Groups as Epistemic Providers: Need for Closure and the Unfolding of Group-centrism". *Psychological Review*, 113(1), 84-100.

Kruglanski, A. W., & Webster, D. M. (1996). "Motivated Closing of the Mind: 'Seizing' and 'freezing'". *Psychological Review*, 103, 263-283.

Leak, G. K., & Randall, B. A. (1995). "Clarification of the Link between Right-wing Authoritarianism and Religiousness: The Role of Religious Maturity". *Journal for the Scientific Study of Religion*, 245-252.

Mannetti, L., Pierro, A., & Kruglanski, A. (2007). "Who Regrets More after Choosing a Non-Status-quo Option? Post Decisional Regret under Need for Cognitive Closure". *Journal of Economic Psychology*, 28(2), 186-196.

Mannetti, L., Pierro, A., Kruglanski, A., Taris, T., & Bezinovic, P. (2002). "A Cross-cultural Study of the Need for Cognitive Closure Scale: Comparing its structure in Croatia, Italy, USA and The Netherlands". *British Journal of Social Psychology*, 41(1), 139-156.

Meuleman, B., Billiet, J. (2011). "Religious Involvement: It's Relation to Values and Social Attitudes". In E., Davidov, P., Schmidt, J., Billiet, (Eds.). *Cross-Cultural Analysis: Methods and Applications*, 173-206. New York: Routledge.

Moneta, G. B., & Yip, P. P. (2004). "Construct Validity of the Scores of the Chinese Version of the Need for Closure Scale". *Educational and Psychological Measurement*, 64(3), 531-548.

Neuberg, S. L., Judice, T. N., & West, S. G. (1997). "What the Need for Closure Scale Measures and What it Does Not: Toward Differentiating among Related Epistemic Motives". *Journal of Personality and Social Psychology*, 72(6), 1396-1412.

Parks, L., & Guay, R. P. (2009). "Personality, Values and Motivation". *Personality and Individual Differences*, 47(7), 675-684.

Pierro, A., Mannetti, L., De Grada, E., Livi, S., & Kruglanski, A. W. (2003). "Autocracy Bias in Informal Groups under Need for Closure". *Personality and Social Psychology Bulletin*, 29(3), 405-417.

Piurko, Y., Schwartz, S. H., & Davidov, E. (2011). "Basic Personal Values and the Meaning of Left-Right Political Orientations in 20 Countries". *Political Psychology*, 32(4), 537-561.

Roccas, S., Sagiv, L., Schwartz, S. H., & Knafo, A. (2002). "The Big five Personality Factors and Personal Values". *Personality and Social Psychology Bulletin*, 28(6), 789-801.

Roets, A., Van Hiel, A., & Cornelis, I. (2006). "Does Materialism Predict Racism? Materialism as a Distinctive Social Attitude and a Predictor of Prejudice". *European Journal of Personality*, 20(2), 155-168.

Roets, A., & Van Hiel, A. (2007). "Separating Ability from Need: Clarifying the Dimensional Structure of the Need for Closure Scale". *Personality and Social Psychology Bulletin*, 33(2), 266-280.

Roets, A., & Van Hiel, A. (2011). "Item Selection and Validation of a Brief, 15-item Version of the Need for Closure Scale". *Personality and Individual Differences*, 50(1), 90-94.

Saroglou, V., & Galand, P. (2004). "Identities, Values, and Religion: A Study among Muslim, Other Immigrant and Native Belgian Young Adults after the 9/11 Attacks". *Identity*, 4(2), 97-132.

Saroglou, V., Delpierre, V., & Dernelle, R. (2004). "Values and Religiosity: A Meta-analysis of Studies using Schwartz's Model". *Personality and Individual Differences*, 37(4), 721-734.

Saroglou, V., & Dupuis, J. (2006). "Being Buddhist in Western Europe: Cognitive Needs, Prosocial Character, and Values". *The International Journal for the Psychology of Religion*, 16(3), 163-179.

Saroglou, V. (2002). "Religion and the Five Factors of Personality: A Meta-analytic Review". *Personality and Individual Differences*, 32(1), 15-25.

Schwartz, S. H. (1992). "Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries". In M. Zanna (Ed.). *Advances in Experimental Social Psychology* (vol. 25, pp. 1-65). New York: Academic Press.

Schwartz, S. H. (1994). "Are There Universal Aspects in the Structure and Contents of Human Values?", *Journal of Social Issues*, 50(4), 19-45.

Schwartz, S. H. (2011). "Values: Cultural and Individual". *Fundamental Questions in Cross-Cultural Psychology*, 463-493.

Schwartz, S. H., & Bardi, A. (2001). "Value Hierarchies across Cultures Taking a Similarities Perspective". *Journal of Cross-Cultural Psychology*, 32(3), 268-290.

Schwartz, S. H., & Bilsky, W. (1987). "Toward A Universal Psychological Structure of Human Values". *Journal of Personality and Social Psychology*, 53(3), 550-562.

Schwartz, S. H., & Sagiv, L. (1995). "Identifying Culture-specifics in the Content and Structure of Values". *Journal of Cross-Cultural Psychology*, 26(1), 92-116.

Schwartz, S. H., Cieciuch, J., Vecchione, M., Davidov, E., Fischer, R., Beierlein, C., et al. (2012). "Refining the Theory of Basic Individual Values". *Journal of Personality and Social Psychology*, 103, 663-688.

Schwartz, S. H., & Rubel, T. (2005). "Sex Differences in Value Priorities: Cross-cultural and Multimethod Studies". *Journal of Personality and Social Psychology*, 89(6), 1010-1028.

Schwartz, S. H., Sagiv, L., & Boehnke, K. (2000). "Worries and Values". *Journal of Personality*, 68, 309-346.

Şeker, B. D. & Akman, E. (2015). "Bilişsel Kapalılık İhtiyacı Ölçeğinin Türkçe'ye Uyarlanması, Güvenirlilik ve Geçerlik Analizi". *Türk Psikoloji Yazıları Dergisi*, 18(35), 51-63.

Thorisdottir, H., Jost, J. T., Liviatan, I., & ShROUT, P. E. (2007). "Psychological Needs and Values Underlying Left-right Political Orientation: Cross-national Evidence from Eastern and Western Europe". *Public-Opinion-Quarterly*, 71(2), 175-203.

Thorisdottir, H., & Jost, J. T. (2011). "Motivated Closed-Mindedness Mediates the Effect of Threat on Political Conservatism". *Political Psychology*, 32(5), 785-811.

Watson, P. J., Morris, R. J., Hood, R. W., JR, Miller, L. & Waddell, M.G. (1999). "Religion and the Experiential System: Relationships of Constructive Thinking with Religious Orientation". *International Journal for the Psychology of Religion*, 9, 195-207.

Webster, D. M., & Kruglanski, A. W. (1994). "Individual Differences in Need for Cognitive Closure". *Journal of Personality and Social Psychology*, 67, 1049-1062.

Van Lange, P. A., Bekkers, R., Chirumbolo, A., & Leone, L. (2012). "Are Conservatives Less Likely to be Prosocial than Liberals? From Games to Ideology, Political Preferences and Voting". *European Journal of Personality*, 26(5), 461-473.

Zavala, D., Golec, A., Cislak, A., & Wesolowska, E. (2010). "Political Conservatism, Need for Cognitive Closure and Intergroup Hostility". *Political Psychology*, 31(4), 521-541.