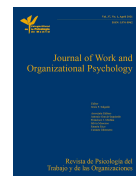




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Disentangling the Linkage between Personality and Commitment: A Moderated Mediation Model of Core Self-Evaluations and Affectivity

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ABSTRACT

The purpose of this study is to investigate how several personality traits and two affective states might be associated with organizational (affective) commitment in a Middle Eastern collectivist culture like Turkey. We tested moderated mediation models of the effects of Big-Five personality traits on affective commitment to the organization while investigating the mediation effects of two affective states (i.e., positive affectivity and negative affectivity) and the moderating effects of a personality trait (i.e., core self-evaluations) on these relationships. Data were collected in a field study ($N = 312$) using a time-lagged research design. As expected, the results indicated that the traits extraversion and agreeableness are positively related to affective commitment through positive affectivity when core self-evaluations is high-to-medium in strength. The results also showed that the indirect and negative effect of neuroticism on affective commitment via negative affectivity was not supported. The main contribution of this study is the focus on personality and affective-commitment linkages, giving an increased understanding of the processes, mechanisms, and conditions (i.e., indirect and moderating) operating within these linkages.

Desenredando la conexión entre personalidad y compromiso: un modelo de mediación moderada de las autoevaluaciones centrales y de la afectividad

RESUMEN

El objetivo del estudio es investigar cómo podrían asociarse diversos rasgos de personalidad y dos estados afectivos con el compromiso afectivo organizativo en una cultura colectivista de oriente próximo como Turquía. Probamos modelos de mediación moderada de los efectos de los rasgos de la personalidad de los Cinco Grandes en el compromiso afectivo con la organización a la vez que investigamos los efectos de la mediación de dos estados afectivos (la afectividad positiva y negativa) y los efectos moderadores de un rasgo de personalidad (las autoevaluaciones centrales) en estas relaciones. Mediante un estudio de campo se recogieron los datos ($N = 312$) mediante un diseño de investigación demorado. Tal y como era de esperar, los resultados indican que los rasgos extraversión y amabilidad se asocian positivamente al compromiso afectivo mediado por la afectividad positiva cuando las autoevaluaciones centrales tienen una fuerza entre elevada y media. Los resultados muestran también que el efecto indirecto y negativo del neuroticismo en el compromiso afectivo, mediado por la afectividad negativa, no se sostiene. La contribución más importante del estudio es que se centra en los vínculos entre personalidad y compromiso afectivo, mejorando el conocimiento de los procesos, mecanismos y condiciones (indirectos y moderadores) que operan en estos vínculos.

Organizational commitment is an important employee attitude because it can render increased predictability in an organization's future (Meyer, 2017). For example, making an investment in developing the talent of a firm's employees becomes less problematic when these employees are strongly committed to the firm. As for a formal definition of organizational commitment, it is described as "an individual's psychological bond with an organization" (Choi et al., 2015, p. 1542).

Organizational commitment has evolved into three components: affective commitment, continuance commitment, and normative commitment (Meyer et al., 2002). Affective commitment (AC) denotes an individual's emotional attachment, identification, and engagement in his or her organization, whereas continuance commitment represents the noticeable costs of leaving an organization and normative commitment reflects a sensed obligation, perhaps even a call to remain in the organization. When compared to

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the other two, AC is more strongly correlated with key organization and individual outcomes, such as turnover, turnover intentions, absenteeism, job performance, organizational citizenship, stress, and work-family conflict (Meyer et al., 2002). As such, AC seems to exceed continuance commitment and normative commitment in importance. Put simply, AC is an indicator of having a favorable attitude, which is desiring to be affiliated with the organization (Meyer, 2017). Indeed, Solinger et al. (2008) identified AC as the most crucial of the organizational commitment components because the construct validity of the other two kinds of commitment has been questioned. As a result, numerous studies have included AC as their only measure of organizational commitment (Solinger et al., 2008). Due to these considerations, AC is the priority of this research effort and serves as this study's dependent variable.

Understanding the antecedents of AC can be of benefit to employees and the organization fostering a better person-organization fit via human resource management processes. In their critique of past meta-analyses, Choi et al. (2015) noted the dearth of personality antecedents in prior commitment research. In their meta-analysis, Meyer et al. (2002) examined the relationship of two personality traits (i.e., locus of control and self-efficacy) to AC. External locus of control (i.e., belief that events occur beyond an individual's control) was discovered to be negatively associated with AC, whereas self-efficacy (i.e., belief that an individual can perform competently) was positively correlated with AC. Paying attention to their own counsel, Choi et al.'s (2015) meta-analysis findings revealed that five personality traits (i.e., extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience) are correlated with AC. Panaccio and Vandenberghe's (2012) study showed that two personality traits, extraversion and agreeableness, indirectly and positively relate to AC through a mediator (positive affectivity [PA]), and the personality trait, neuroticism, indirectly and negatively relates to AC through another mediator (negative affectivity [NA]).

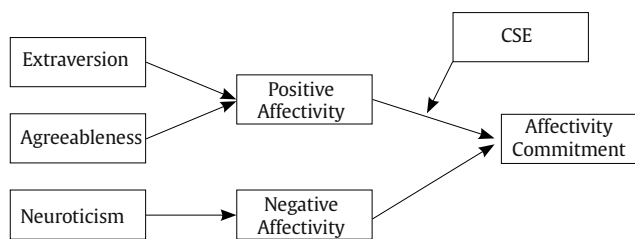


Figure 1. The Conceptual Moderated Mediation Model of the Study.
 Note. CSE = core self-evaluations.

Panaccio and Vandenberghe's (2012) study clearly helps our understanding of the mechanism between the personality traits and AC. As Choi et al. (2015) has pointed out, situational conditions such as national culture could strengthen or weaken the effects of personality on variables such as AC. Therefore, the first purpose of this study is to assess whether the effects found in Panaccio and Vandenberghe's study carry over into a markedly different culture (i.e., Turkey) and profession (i.e., technology professionals). The present study also considers Chang et al.'s (2012) call for the use of moderated mediation to determine if a moderator, such as core self-evaluations (CSE), bolsters or hinders the mediation in our study's models. Accordingly, we will attempt to extend the AC literature with the introduction of a boundary variable (i.e., a personality trait known as core self-evaluations), determining if CSE moderates the relationships of extraversion and agreeableness to AC through PA. CSE deals with self-perceptions of one's worth and the related capacity to function effectively in that environment (Judge et al., 1998). These moderated mediation models are presented in Figure 1.

Conceptual Framework and Hypothesis Development

Affective Commitment

A review of the literature indicates that situational-and-experiential antecedents of AC (e.g., leadership, empowerment, trust) have captured more of the research attention when compared to personality predictors (Choi et al., 2015). In a recent study of lower-order personality traits, Albrecht and Marty (2020) reported that sentimentality (i.e., propensity to have deep emotional connections with other people) is directly related to AC as well as indirectly associated with AC via self-efficacy and work engagement. Social boldness (i.e., speaking up in group deliberations) and diligence (i.e., persistence in striving to accomplish a goal) were also found to be related to AC through self-efficacy and work engagement. T.-Y. Kim et al.'s (2015) research design included a CSE predictor and a situational-experiential moderator (i.e., leadership). They found that CSE is positively correlated with AC; however, the relationship between CSE and AC was even stronger when the employee's boss was considered a transformational leader.

Big-Five Personality Model

The Big-Five model includes five personality traits: extraversion, agreeableness, conscientiousness, neuroticism (emotional instability), and openness to experience (Goldberg, 1990). This model has had a growing presence in workplace literatures, predicting prime workplace outcomes such as job performance (Barrick et al., 2001) and turnover (Zimmerman, 2008).

Extraversion is a tendency to display features of sociability, assertiveness, cheerfulness, talkativeness, optimism, and high activity (Bruck & Allen, 2003). Magnus et al.'s (1993) four-year longitudinal study demonstrated that extraverted persons are inclined to experience more positive life events such as marriage, graduate school, promotions at work, and pay raises. In another longitudinal study, Kokkonen and Pulkkinen (2001) reported that a high level of extraversion led to a greater use of social support (e.g., friendships) to maintain positive emotions and minimize negative emotions. Furthermore, extraverted individuals are likely to be trusted and to have good-natured relationships in the workplace (Panaccio & Vandenberghe, 2012). Persons scoring high on the extraversion scale tend to "get along with others ... and behave prosocially" (Choi et al., 2015, p. 1546).

The principal focus of the agreeableness trait is preserving positive dealings with others (Tobin et al., 2000). Bruck and Allen (2003) describe agreeableness in terms of soft-heartedness and cooperativeness whereas disagreeableness is characterized by egocentrism, irritability, and competitiveness. At work, individuals with an agreeable personality tend to have reciprocating friendships: liking others while being liked. These individuals are highly engaged in their work teams – accepted and highly trusted.

According to Zimmerman et al. (2012), individuals scoring high in neuroticism seem more attentive to negative stimuli and more likely to form negative attitudes. Those with neurotic tendencies will "experience emotional instability and will show characteristics of worrying, fear, guilt, sadness, anger, embarrassment, and disgust" (Bruck & Allen, 2003, p. 461). Magnus et al.'s (1993) longitudinal study indicated that a neurotic disposition increased the likelihood of the occurrence of negative life events, meaning that suicide attempts, abortion, encounters with violent crimes, various forms of organizational termination, among others, are more probable. In another longitudinal study, Kokkonen and Pulkkinen (2001) discovered that a high level of neuroticism increased reliance on dysfunctional, maladaptive emotion regulation (e.g., choosing strategies that are ineffective in regulating emotions).

Both conscientiousness and openness to experience were omitted in Panaccio and Vandenberghe's (2012) study due to a lack of theoretical and empirical justification. Cropanzano and Dasborough (2015, p. 844) noted that "Some personality traits impact workplace affect (...) not all are 'affectively relevant'." In line with this thinking, conscientiousness relates to AC through cognitive mediators instead of affective states (Panaccio & Vandenberghe, 2012). Panaccio and Vandenberghe's data also showed that the openness trait is unrelated to both PA and NA, making this trait less relevant to the mediation models proposed in their study as well as ours. Therefore, both traits will not be considered in the present study.

Choi et al. (2015) stated that one dimension of national culture, individualism and collectivism, is a situational factor that could influence the association between personality and AC. Members of collectivist societies tend to prize loyalty, pride, and cohesiveness to the family, whereas members of individualist societies have a more egalitarian, less exclusive view to valuing persons in the family versus persons outside of the family (Gelfand et al., 2004). Choi et al. (2015) reported further that the Big Five-AC studies in their meta-analysis were chiefly conducted in individualist (e.g., U.S., Canada, England) or East Asian collectivist cultures (e.g., China, South Korea, Japan). The Panaccio and Vandenberghe's (2012) study, for example, was conducted in individualistic Canada. The sample in our study is drawn from a unique collectivist location, Middle Eastern Turkey, giving some pause on how well Panaccio and Vandenberghe's findings travel across different collectivist cultures.

According to Gurbuz et al. (2021), it might be a mistake to assume that East Asian and Middle Eastern cultures are invariant. Scholars such as Kagitcibasi (1997), Triandis (1995), and Uskul et al. (2010) have long proffered that there are subtle distinctions between Middle Eastern and East Asian collectivism. Uskul et al. (2010) deepened this insight, stating that there is a collectivism grounded in East Asian Confucianism that prizes self-effacement; then, there is a Middle Eastern form of collectivism that values family honor and protection of the family's good name. Considering Turkey's geographic positioning, we think that it is primarily an honor-based culture instead of Confucian-based (i.e., self-effacement), heightening interest in this research. Discovering if Turkey's distinct collectivist culture alters the effects found in Panaccio and Vandenberghe's (2012) study is an aim of this study.

The focus of Confucian-based collectivism is a culture of modesty which entails maintaining harmony within the group whereas the focus of honor-based collectivism is maintaining a good reputation, both personally and for the benefit of the group (Uskul et al., 2010). The commonality between honor-based collectivism and Confucian-based collectivism is that both give priority to interpersonal connectedness (Uskul et al., 2010). Interpersonal connectedness is emphasized within family, organizational, and community groups. According to Uskul et al. (2010), the mutual theme of connectedness in honor-based and Confucian-based collectivism can produce the same cognitive outcomes for the two, suggesting that the effects of the two collectivist cultures on AC may not differ. Consequently, we think that the results of the Big-Five traits examined in the present study on the AC outcome via positive and negative affect will be similar in honor-based and Confucian-based societies.

Mediating Role of Affective States

PA and NA can be either affective states or affective traits (Weiss & Cropanzano, 1996). Not unlike Panaccio and Vandenberghe's (2012) study, we have defined PA and NA as affective states composed of "short-lived episodes of positive and negative mood" (Barr, 2018, p. 773). PA and NA states can be explained by work events such as a pay raise, promotion, reprimand, or downsizing (see Affective Events Theory, Weiss and Cropanzano, 1996) or by personality such

as extraversion, agreeableness, and neuroticism (Hengartner et al., 2017; Herrbach, 2006; Weiss & Cropanzano, 1996). Personality traits predispose individuals to experience specific events and influence how they respond to these events which, in turn, induces certain emotions and moods (Panaccio & Vandenberghe, 2012). Mood, emotions, and feelings which make up PA and NA states tend to "flow in a more or less regular fashion" from personality (Cropanzano & Dasborough, 2015, p. 845). Feeling excited, inspired, and determined are examples of a PA state whereas feeling irritable, upset, and ashamed typify a NA state (Barr, 2018).

Extraverts and agreeable types tend to seek out and enact work environments in line with their personalities, yielding a positive affective state over time (Panaccio & Vandenberghe, 2012). Neurotics, on the other hand, tend to place themselves in work settings allowing their neurotic tendencies to continue, resulting in a negative affective state. Not only do the three personality types find work sites that fit their disposition but they also respond to coworkers in a manner consistent with a trait, contributing more emotion to their positive or negative state. In line with Cropanzano and Dasborough's (2015) thinking, the three personality traits form individuals' affective states with higher or lower moods and the waxing-and-waning of mood changes over time. In turn, these affective states can spill over into a particular AC attitude that the individual holds. Indeed, the Panaccio and Vandenberghe's (2012) study found support for these personality-affective state-AC relationships.

Moderating Role of Core Self-evaluations

The CSE construct is described as the "fundamental appraisal of one's worthiness, effectiveness, and capability as a person" (Judge et al., 2003, p. 304). It is "a broad, latent, higher-order trait indicated by four well established traits in the personality literature" (Judge et al., 2003, p. 303). The four lower-order traits are self-esteem, generalized self-efficacy, neuroticism, and locus of control. CSE is not simply a combination of these lower-order traits but is more accurately defined as the principal source of the four.

Results of past research indicate that CSE predicts a long list of positive and negative outcomes such as life satisfaction, performance, and burnout (Joo et al., 2012). Moreover, the CSE literature is replete with examples of significant moderator effects for this construct (e.g., Boyar et al., 2016; Debusscher et al., 2017; Duffy et al., 2012; Harris et al., 2009; Joo et al., 2012; Liang & Gong, 2013; Peng et al., 2016; Rey et al., 2012; Selvarajan et al., 2016; Valls et al., 2020; Volmer 2015; Yuan et al., 2014). For instance, Selvarajan et al.'s (2016, p. 39) results indicated that CSE moderated two relationships: (1) "perceived organization support and work interfering with family conflict" and (2) "perceived supervisor support and work interfering with family conflict". Volmer (2015) reported that CSE moderated the relationship of social conflicts with supervisors to negative affect. Valls et al.'s (2020) findings revealed that CSE moderated the negative relationship of proactive personality to perceived overqualification through career planning.

To explain CSE's potential as a moderator, Aryee et al. (2017) argued that CSE is the basis for an individual's sense of agency. This sense of agency refers to the control that one can exert to impact their environment. Individuals with a strong CSE possess a robust self-worthiness, effectiveness, and capability, indicating that they can and do shape their surroundings. Chang et al.'s (2012) research has shown that high CSE individuals are better able to discover and pursue opportunities as they occur. Duffy et al.'s (2012) results give a different twist that supports the agency perspective. The belief that one is vocationally called via some kind of external force (i.e., a force coming from outside the individual) is more strongly associated with life satisfaction for low CSE persons than mid-to-high CSE individuals,

suggesting that a path to increased life satisfaction for the low self-concept persons (i.e., low CSEs) could be the absence of agency and personal control.

Judge and Hurst's (2007) findings suggest that high-CSE individuals are better at capitalizing on the resources available to them and they can take advantage of opportunities coming their way. Accordingly, we can see that the high-CSE participants in the present study might gain from the advantages of having certain personality traits (i.e., extraversion and agreeableness) whereas low CSE persons may be less likely to grasp or wield any benefit from these traits. Having a strong CSE may give individuals a keen self-awareness of the advantages to being an extravert or agreeable, allowing them to capitalize on those advantages, which in our study means a more positive affective state and, in the end, a higher AC.

Several CSE moderator studies (Boyar et al., 2016; Harris et al., 2009; Selvarajan et al., 2016; Volmer 2015) were conducted in individualist cultures, such as the U.S. and Germany, while other CSE moderator studies (Joo et al., 2012; Liang & Gong, 2013; Peng et al., 2016) were conducted in East Asian collectivistic cultures such as China, Taiwan, and South Korea. Regardless of geographic location, these studies found strong support for the CSE moderator effects, suggesting that these effects may not be confined to certain cultures.

Our study attempts to extend the cultural boundaries of CSE moderator research, beyond the U.S., Germany, China, Taiwan, and South Korea, to a Middle Eastern collectivist society. Considering the number of studies finding support for CSE's moderator effects, we are hypothesizing that its effects will also be significant in the current study. That is, a sense of agency and being able to take advantage of opportunities and capitalize on available resources, which characterizes high CSE individuals, is likely not unique to Western and Far East cultures and is an acceptable trait to exhibit in Middle Eastern collectivism that values family honor. According to Kagitcibasi (1997), exhibiting cooperative resourcefulness is an acceptable behavior across collectivist cultures (i.e., Middle Eastern and East Asian); this behavior also appears to relate to the taking advantage of opportunities and capitalizing on available resources which is characteristic of a strong CSE personality. Accordingly, we formally propose that:

H1: The indirect effect of extraversion on AC through PA will be moderated by CSE. Specifically, we predict that the positive indirect effect of extraversion on AC through PA will be stronger for workers who have high CSE.

H2: The indirect effect of agreeableness on AC through PA will be moderated by CSE. Specifically, we predict that the positive indirect effect of agreeableness on AC through PA will be stronger for workers who have high CSE.

Note that a moderation-mediation model is not proposed for the third Big-Five trait in our study (i.e., neuroticism) because past research (Judge et al., 2003) has demonstrated that the latent, higher-order CSE trait forms the lower-order neuroticism trait. This overlap in the two constructs makes a causal connection of CSE's moderation of the neuroticism trait's linkages problematic from both a conceptual and analytical perspective. Therefore, we limit our moderated mediation hypotheses to two traits (i.e., extraversion and agreeableness), not formed from the CSE variable.

Method

Participants and Procedures

We gathered data from 312 technology professionals in Ankara, Turkey. These participants had diversified work positions such as engineering, supervising, and administrative support. The participants were employed in five high-tech firms in the defense industry. According to the 2021 SIPRI report, two of these high-

tech firms are among the world's 100 largest arms-producing and military services enterprises (SIPRI, 2021). The main characteristic of these participants is that they are a well-educated and highly skilled workforce. Participants in our sample were recruited through the networking of the first author. Before data collection, the first author's University's Ethic Review Board approved the design of the study. All procedures were carried out in conformity with the Ethic Review Board's procedures and regulations and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Participation in the study was entirely voluntary, and all individuals provided signed informed consent. The surveys were distributed to these participants with a pre-paid envelope. They were assured that their responses would be kept confidential. We asked each respondent to write the same multi-digit number (unique to them) on both questionnaires so that their responses could be matched in Time 1 and Time 2.

To lessen the effects of common method variance (see Podsakoff et al., 2012), the time-lagged data were collected in two different time periods. Also, a cross-time lagged design is stronger than a cross-sectional design for testing prediction (Wang et al., 2017); therefore, we adopted this design for the present study. In Time 1, we distributed 550 surveys to target employees, 407 of whom (74%) provided usable responses. Approximately three months later (Time 2), the 407 participants were reached via postal mail and asked to complete the second questionnaire. Among them, 355 filled out these questionnaires for 87% response rate. We eliminated 43 participants who changed organization's during the two time periods, reducing our final sample size to 312 participants. In Time 1, we measured the Big-Five personality traits, PA, NA, CSE, and demographic variables while in Time 2, we assessed AC. All participants were Turkish. The mean age of the 312 respondents was 36.6 years ($SD = 7.73$). Of the 312, 135 (43%) were female. Participants were generally well educated: 214 (69%) had a bachelor's degree. The average tenure was 12.85 years ($SD = 7.05$). In our sample, 254 (81%) of the participants were in non-managerial positions (e.g., junior engineer, HR specialist), 50 (16%) were in supervisory positions (e.g., team leader, supervisor), and 8 (3%) were in middle-management positions (e.g., department manager). We conducted a series of one-way analysis of variance (ANOVA) procedures to determine if the main variables vary by the organizational level of these participants (non-management/supervisory/middle management). The ANOVA results show that CSE, $F(2, 312) = 1.35, p = .87$; PA, $F(2, 312) = .72, p = .48$; NA, $F(2, 312) = .79, p = .84$; extraversion, $F(2, 312) = .48, p = .62$; agreeableness, $F(2, 312) = .36, p = .70$; neuroticism, $F(2, 312) = .85, p = .43$; and AC, $F(2, 312) = .71, p = .47$, did not differ by organizational level.

Measures

Except for the demographic variables, all other items in the two surveys were anchored with a 5-point Likert scale (1 = *strongly disagree* and 5 = *strongly agree*).

Core Self-evaluations

A 12-item scale introduced by Judge et al. (2003) was used to assess the CSE of the participants. This scale encompassed four subdimensions: self-esteem, emotional stability (low neuroticism), self-efficacy, and locus of control. Sample items include "I am confident," "I get the success I deserve in life," and "Overall, I am satisfied with myself." The CSE scale was tailored into the Turkish context by Costigan et al. (2018). Costigan et al. confirmed that the Turkish version of the CSE scale is unidimensional. In the current study, the internal consistency (Cronbach alfa) of the scale is .78.

Table 1. Confirmatory Factor Analysis of Measurement Models: Fit Indices

Models	χ^2	df	χ^2/df	CFI	GFI	RMSEA	Model comparison test	
							$\Delta\chi^2$	Δdf
1. Seven factor model ¹	330.78*	168	1.96	.93	.92	.05	-	-
2. Four factor model ²	743.66*	179	4.16	.68	.78	.10	2 vs. 1	287.116
3. Two factor model ³	991.94*	189	5.25	.54	.74	.12	3 vs. 1	661.16
4. One factor model ⁴	1371.20*	190	7.22	.33	.67	.14	4 vs. 1	1040.42

Note. N = 312; CFI = comparative fit index; GFI = goodness-of-fit index; RMSEA = root mean square error of approximation; ¹proposed model; ²combining CSE, commitment, and neuroticism; ³combining CSE, PANAS, neuroticism, agreeableness, and extraversion; ⁴combining all items.

*p < .001.

Positive and Negative Affectivity

We assessed participants' affective states via Watson et al.'s (1988) 20-item Positive and Negative Affect Schedule (PANAS) scale. Participants were asked to appraise the frequency of emotions experienced in the past two weeks (1 = never to 5 = always). Active, enthusiastic, attentive, and inspired adjectives defined PA while afraid, ashamed, nervous, and upset described NA. Note that these operationalizations of PA and NA and the recency of the measurement of these emotions are in line with Klumper et al.'s (2009) procedure for distinguishing between affective state and affective trait variables. Specifically, participants were asked about their recent emotions (past two weeks) instead of their longer-term emotional experiences (e.g., over the past year). Hence, our study's operationalizations provide two affective state variables (PA and NA). The PANAS questionnaire was tailored into the Turkish context of this study in a previous study conducted by Gencoz (2000). We found acceptable internal consistency for the two scales: .77 for the PA scale and .79 for the NA scale.

Big-Five Personality Traits

We measured three Big-Five personality traits using Benet-Martinez and John's (1998) scale. The original scale is comprised of five traits and 44 items. Consistent with our research purposes, we excluded two personality dimensions (i.e., openness and conscientiousness) and used the remaining 25 items. Eight questions for assessing extraversion ("I see myself as someone who is talkative"), nine questions for assessing agreeableness ("I see myself as someone who is considerate to almost everyone"), and eight items for assessing neuroticism ("... worries a lot") were used. We employed Sumer et al.'s (2005) 25-item Turkish scale to assess the three personality traits. The internal consistency reliabilities in the current study are: .71 for extraversion, .70 for agreeableness, and .75 for neuroticism.

Affective Commitment

We assessed AC with Allen and Meyer's (1990) five-item scale. Sample items include: "I do not feel a strong sense of belonging to

my organization" (reverse-scored item) and "I would be very happy to spend the rest of my career in this organization." This scale was validated into the Turkish context by Wasti (2003). The internal consistency of AC in our study is .90.

Control Variables

Earlier research has shown that males have a higher AC than females, while tenure and age show a small but positive correlation with AC (Meyer et al., 2002). Consistent with past AC studies (e.g., Erdheim et al., 2006; Meyer et al., 2002; Panaccio & Vandenberghe, 2012), gender, age, and tenure were controlled in our study's analyses.

Analytical Strategy

We tested the distinctiveness of our measures using a series of a confirmatory factor analysis (CFA) with LISREL version 9.20 (Jöreskog & Sörbom, 2015). The maximum likelihood (ML) was used as an estimation method. To minimize the complexity of our scales, we created three indicators per construct (Landis et al., 2000) using a random assignment method (Williams & Anderson, 1994). This type of parceling strategy has also been employed in similar personality research (e.g., Panaccio & Vandenberghe, 2012). We then compared our hypothesized seven-factor model (i.e., the three Big-Five personality traits, PA, NA, CSE, and AC) with three alternative models using χ^2 difference tests (Bentler & Bonett, 1980). As shown in Table 1, the seven-factor model produced a best fit to the data, $\chi^2(168, N = 312) = 330.78, p < .001; \chi^2/SD = 1.96; RMSEA = .05; CFI = .93; GFI = .92$, and proved that the multi-item scales are distinct from one another.

We conducted a series regression-based path analyses with the aid of PROCESS macro which is an add-on program to IBM SPSS developed by Hayes (2018) to test interactions and conditional indirect effects. To do so, bootstrapping was employed to attain 95% bias-corrected confidence intervals (CI) with 5,000 samples (see MacKinnon et al., 2004, p. 107). We adopted this methodology because it provides more valid results, removing the drawbacks of

Table 2. Correlations, Means, Standard Deviations, and Reliabilities

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Age in years	36.57	7.73	-									
2. Gender ¹	1.57	0.50	.046	-								
3. Tenure in years	13.85	8.05	.846**	-.038	-							
4. CSE	3.46	0.49	.000	.039	-.059	(.78)						
5. PA	3.60	0.54	-.003	.061	-.032	.413**	(.77)					
6. NA	2.49	0.54	-.101	.133*	-.127*	-.242**	.049	(.79)				
7. Neuroticism	2.61	0.61	-.026	-.071	-.052	-.538**	-.349**	.592**	(.75)			
8. Extraversion	3.34	0.57	-.091	-.089	-.077	.309**	.516**	-.153**	-.255**	(.71)		
9. Agreeableness	3.85	0.50	.019	-.097	.024	.265**	.434**	-.515**	-.396**	.198**	(.70)	
10. AC	3.18	0.95	.209**	.191**	.105	.298**	.276**	-.179**	-.172**	.184**	.176**	(.90)

Note. N = 312; CSE = core self-evaluation; PA = positive affective; NA = negative affective; AC = affective commitment; ¹females are coded 1 while males are coded 2.

*p < .05, **p < .01.

Baron and Kenny's (1986) classical three-step method and Sobel's (1982) test in examining conditional and indirect effects (Gurbuz, 2021; Hayes, 2018). Furthermore, the PROCESS macro outperforms LISREL in terms of computing the moderated mediation index and probing the interactional effect.

Results

Descriptive statistics, including standard deviations and means, reliabilities, and correlations, are depicted in Table 2. All scales displayed good internal consistency (> .70). AC was positively associated with PA ($r = .28, p < .01$), extraversion ($r = .18, p < .01$),

agreeableness ($r = .18, p < .01$), CSE ($r = .30, p < .01$), and age ($r = .21, p < .01$), while it was negatively related to NA ($r = -.18, p < .01$) and to neuroticism ($r = -.17, p < .01$).

We then performed a series of bootstrapping-based regressions, given its robustness in testing conditional indirect effects. This approach focuses on the indirect effect of predictor (X) on outcome variable (Y) via the intervening variables and argues that even if there is no total effect between X and Y, a mediation effect may still occur. (Hayes, 2018). In such analyses, when the confidence interval did not include "zero", the indirect and conditioning effects were significant. The bootstrap regression analysis results are given in Table 3. First, we tested a bootstrapping model (Model 1 in Table 3) examining whether

Table 3. Bootstrap Regression Analysis Results (N = 312)

Variables	Positive Affective (PA)			Negative Affective (NA)			Affective Commitment (AC)		
	β	LLCI	ULCI	β	LLCI	ULCI	β	LLCI	ULCI
Model 1									
Extraversion	.493***	.401	.584	-	-	-	.094	-.117	.304
Positive affective (M)	-	-	-	-	-	-	.435***	.214	.655
R ²	.266						.079		
Bootstrap indirect effect	Extraversion → Positive affective → Affective commitment $\beta = .214, \% 95 \text{ BCA CI } [.103, .349]$								
Model 2									
Agreeableness	.470***	.361	.580	-	-	-	.132	-.095	.358
Positive affective (M)	-	-	-	-	-	-	.433***	.223	.642
R ²	.189						.080		
Bootstrap indirect effect	Agreeableness → Positive affective → Affective commitment $\beta = .203, 95\% \text{ BCA CI } [.090, .330]$								
Model 3									
Neuroticism	-	-	-	.690***	.586	.795	-.159	-.372	-.055
Negative affective (M)	-	-	-	-	-	-	-.160	-.343	.024
R ²				.592			.197		
Bootstrap indirect effect	Neuroticism → Negative affective → Affective commitment $\beta = -.110, 95\% \text{ BCA CI } [-.248, .025]$								
Model 4 (Hypothesis 1)									
Extraversion	.493***	.401	.584	-	-	-	.040	-.166	.246
Positive affective (M)	-	-	-	-	-	-	.307**	.081	.533
CSE (W)	-	-	-	-	-	-	.414***	.190	.638
X*W (interaction)	-	-	-	-	-	-	.407*	.066	.749
R ²	.266						.133		
Bootstrap moderated mediation effect	β	LLCI	ULCI						
Low CSE	.058	-.070	.197						
Medium CSE	.151	.039	.283						
High CSE	.232	.090	.413						
Moderated mediation index	.201	.017	.375						
Model 5 (Hypothesis 2)									
Agreeableness	.470***	.361	.580	-	-	-	.057	-.166	.280
Positive affective (X)	-	-	-	-	-	-	.306**	.088	.523
CSE (W)	-	-	-	-	-	-	.413***	.190	.636
X*W (interaction)	-	-	-	-	-	-	.399*	.055	.742
R ²	.189						.133		
Bootstrap moderated mediation effect	β	LLCI	ULCI						
Low CSE	.057	-.075	.187						
Medium CSE	.143	.027	.269						
High CSE	.229	.080	.395						
Moderated mediation index	.187	.015	.366						

Note. β = unstandardized regression coefficient; CSE = core self-evaluations; M = mediator; W = moderator; LLCI = lower-level confidence interval; ULCI = upper-level confidence interval; bootstrap re-sampling = 5,000. All variables were centered during the moderation analyses.
* $p < .05$, ** $p < .01$, *** $p < .001$.

extraversion indirectly and positively relates to AC through PA using a simple mediation model (Model number 4) in the process macro. As shown in Table 3, it was observed that extraversion's positive indirect effect on AC via PA is significant ($\beta = .214$, 95% BCA CI [.103, .349]). Next, we examined whether agreeableness indirectly and positively relates to AC through PA by employing the same model number. As can be seen in Table 3 (Model 2), we found that agreeableness' positive indirect effect on AC via PA is significant ($\beta = .203$, 95% BCA CI [.090, .330]). We then tested whether neuroticism indirectly and negatively relates to AC through NA. Contrary to our expectation (Model 3 in Table 3), we observed that neuroticism's indirect impact on AC via NA is not significant ($\beta = -.110$, 95% CI [-.248, .025]). In sum, these findings show that both extraversion and agreeableness indirectly and positively relate to AC through PA, showing support for our replication of this part of Panaccio and Vandenberghe's (2012) study. However, our attempt to replicate their neuroticism finding was not successful. Neuroticism did not indirectly and negatively relate to AC through NA.

Hypothesis 1 proposed that the indirect effect of extraversion on AC through PA will be moderated by CSE. To test Hypothesis 1, we tested the moderated mediation model with CSE as a moderator (Hayes, 2018) (Model 4 in Table 3). Prior to the analyses, the independent and moderating variables were mean-centered to reduce multicollinearity (Aiken & West, 1991). As a first step in assessing the conditional indirect effects of extraversion on AC (via PA and dependent on the levels of CSE), we first examined whether the relationship between PA and AC depends on CSE by running model number 1 in the process macro. We observed a significant interaction between PA and CSE on AC ($\beta = .407$, 95% CI [.070, .740]). Figure 2 presents a depiction of this interaction. When CSE is high ($\beta = .232$, 95% CI [.090, .413]) and medium ($\beta = .151$, 95% CI [.039, .283]), PA is associated with higher levels of AC. However, when CSE is low, this relationship becomes nonsignificant ($\beta = .058$, 95% CI [-.070, .197]). As a second step, we analyzed the conditional indirect effects model which is moderated mediation using model number 14 in the process macro (Hayes, 2018). As can be seen Table 3 (Model 4), the moderated mediation index is significant ($\beta = .201$, 95% CI [.017, .375]). This result depicts that when the level of CSE is high and medium, the positive indirect effect of extraversion on AC through PA is stronger. However, when the level of CSE is low, the positive indirect effect of extraversion on AC through PA is weaker and not significant. Taken altogether, these results support Hypothesis 1.

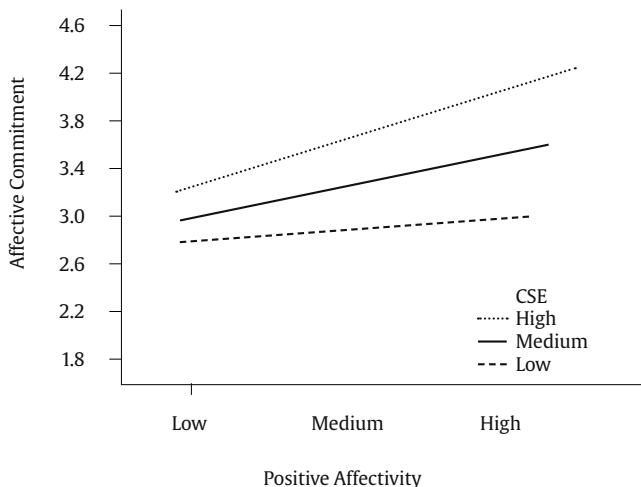


Figure 2. Plot for the Interaction between PA and CSE on AC.

Hypothesis 2 proposed that the indirect effect of agreeableness on AC via PA will be moderated by CSE. To test Hypothesis 2, we followed similar procedures by using the same model number in

the process macro for testing the first hypothesis (see Model 5 in Table 3). As a first step in assessing the conditional indirect effect of agreeableness on AC via PA while dependent on the levels of CSE, we first examined whether the relationship between PA and AC depends on CSE. This analysis established that this relationship is indeed moderated—contingent on CSE. As a second step, we analyzed the conditional indirect effect model which is moderated mediation. As can be seen in Table 3 (Model 5), the moderated mediation index is significant ($\beta = .187$, 95% CI [.015, .366]). Put another way, when the level of CSE is high ($\beta = .229$, 95% CI [.080, .395]) and medium ($\beta = .143$, 95% CI [.027, .269]), the indirect effects of agreeableness on AC via PA is stronger. However, when CSE is low ($\beta = .057$, 95% CI [-.075, .187]), the beneficial indirect effect of agreeableness on AC is weaker and not significant. These results give support to Hypothesis 2.

Discussion

In investigating the proposed moderated mediation models, we sought to make two contributions to the AC literature. First, we examined the robustness of PA and NA as mediating variables and the conditional mechanism of CSE as a moderator of the relationships of extraversion and agreeableness to AC through the PA state. As said, identifying the combinations of personality traits and affective states that predict AC could eventually lead to improved employee well-being. Second, we tested these models in a Middle Eastern culture giving clarity on how well these models travel to such a distinctive collectivist setting. A Middle Eastern collectivist society such as Turkey tends to respect in-group honor whereas the East Asian form of collectivism tends to value self-effacement.

Our Turkish findings concur, in part, with Panaccio and Vandenberghe's (2012) results, revealing that two Big-Five traits (i.e., extraversion and agreeableness) were indirectly and positively associated with AC through PA. In addition, CSE moderated both sets of relationships extending the literature with a new understanding of how a disposition like CSE can have such a strong effect in moderating the relationships of multiple predictors of AC. More specifically, we discovered that extraversion and agreeableness are indirectly and significantly related to AC through PA when the CSE moderator was high-to-medium in strength. On the other hand, the effects of both extraversion and agreeableness on AC via PA were weak and non-significant when CSE was low in strength.

Implications for Theory

Meyer et al. (2002, p. 39) stated that “the advantage of identifying such mediating mechanisms is that they can provide order to what has, to date, been largely unsystematic attempts to investigate ‘antecedents’ of commitment.” Honoring Meyer et al.'s stance on the benefit of examining mediators, our results indicated support for moderated mediation models, deepening our understanding of how personality traits including CSE, along with the PA mediator, interrelate to predict AC. As pointed out by Weiss and Cropanzano (1993), a high PA score reflects “zest for living” whereas a low PA score reflects “apathy.” The emotional state (i.e., PA) which has a continuum from “zest for living” to “apathy” seems to supply the necessary link between the two personality traits and AC. According to Weiss and Cropanzano (p. 37), PA “help(s) set the stage for individuals to have more or less intense bouts of emotions.” Positive or negative emotions and moods in the instance of states (versus traits) do not mean that the individual is always happy or sad, but it does suggest that a general affective emotion or mood in the moment could be significantly augmented by the influence of personality traits (Herrbach, 2006). The results of our study suggest that the two traits (extraversion and agreeableness) contributed to the

employee's current PA state which later dispersed positive emotions toward a relevant workplace attitude (i.e., AC) that reflects a positive personal well-being in the form of increased emotional attachment, identification, and engagement.

Our findings showed that NA did not mediate the neuroticism-AC relationship. Our attempt to replicate Panaccio and Vandenberghe's (2012) research was, in this instance, not supported. One explanation could be the dissimilarity of the two samples. Panaccio and Vandenberghe drew their participants from diverse industries apparently in French Canada whereas our sample came from five high-tech firms in Ankara, Turkey. Might the differences in the makeup of the two samples or perhaps cultural differences account for the inconsistency in the findings? A second possibility can be gleaned with a closer look at the neuroticism-NA correlations in the Panaccio and Vandenberghe's study ($r = .25$) and the present study ($r = .59$). The inconsistency in the size of these correlations suggests that the measurement of neuroticism and NA may have differed in the two studies. The Turkish respondents' perceptions of this neuroticism trait and NA state seem overlapping with a good amount of shared variance, at least in comparison to the perceptions made in the Panaccio and Vandenberghe's study. Perhaps, the non-significant mediating finding in the present study can be attributed to measurement error, traceable to a sample's unique usage of one or both scales.

CSE's past success as a moderator is impressive; its impact in our research effort adds to its record as a potent moderator. The high CSE employee's "sense of agency" seems to be manifested in their exercising personal control over their work setting. Moreover, exercising this personal control could entail behavioral facets such as capitalizing on available resources and opportunities. Low CSE individuals, on the contrary, may have exerted less personal control in letting their extraverted and agreeable natures influence their affect state and AC. Debusscher et al.'s (2017) findings give a nuanced addition to our "sense of agency" thinking. According to Debusscher et al., the high CSE personalities tend to rise to the occasion when faced with challenging situations. Seemingly, they are intrinsically driven to shape their work environments with a high achievement orientation. Low CSE persons, on the other hand, can be threatened by difficult challenges, causing them to withdraw from such challenges.

CSE has had a good record as a moderator across individualist and collectivist societies. Our study's findings reveal that the qualities of a strong CSE personality seem to be an acceptable trait in a collectivist culture (Turkey) that primarily values family honor over self-effacement. It should be noted that the findings of a small number of studies (e.g., Gbadamosi & Ross, 2012; Sun et al., 2014) conducted in non-Middle Eastern countries did not show support for CSE as a moderating variable. Discovering the reasons why the CSE moderator failed to produce the expected results in such studies begs for answers in future studies.

Implications for Practice

What role can personality play in improving AC in organizations? Recent personality research by Bleidorn et al. (2019) concluded that some change in an individual's personality is likely because of "life events" and planned interventions. An increased level of agreeableness, for example, has been detected with different kinds of work experiences (Bleidorn et al., 2019). According to these scholars, trait malleability is good news for the applied setting considering the frequent changes occurring in peoples' jobs, subunits, and organizations. These temporal adjustments in the worker's personality makeup, including CSE, might allow for higher AC through PA under these changing work conditions. A longitudinal research design could address the effects of trait malleability on AC via affective states over time and perhaps in different organizations.

Panaccio and Vandenberghe (2012) suggested that the more extraverted employees prefer to get ahead by leveraging their outgoing personality with the organization's reward practices. Identifying the specific reward practices that complement the extraversion trait might produce additional AC payoffs via PA. Moreover, agreeable employees thrive in organizations that value teamwork—working interdependently is fulfilling for these persons, especially when the organization values empathy in coworker relationships (Panaccio & Vandenberghe, 2012). Placing agreeable individuals in positions calling for teamwork and empathy might also improve AC through PA.

Fitting these personalities to complementary work responsibilities and organizational values could strengthen worker AC thru PA, especially when employees have high-to-medium levels of CSE. Seemingly, CSE serves as a valuable personal resource for those high CSE workers helping them attain the benefits of their personality whereas low scoring CSE employees may not have the personal resources to capitalize on their personality (Harris et al., 2009; Selvarajan et al., 2016; Volmer, 2015). Assessing CSE in the selection process could be another step to enhancing the organization's AC due to the hiring of a better mix of personality traits among its employees.

Strengths and Limitations

The research methods in this study had strengths and weaknesses. One strength is the adequate reliability of our personality measures, affective states, and AC construct. The internal consistency of our variables is good. Attaining an acceptable level of internal consistency does not guarantee acceptable levels of construct validity. We have already expressed some concern on the measurement of our neuroticism and NA variables.

Another strength is the research design—we had a three-month separation between the personality and affective-state measurements and the AC measurement. Some decrease in common method variance may have occurred with such a design (Podsakoff et al., 2012). Although our two-wave design may have helped in lessening this bias, it is still not a perfect design because we did not measure the outcome variable (i.e., AC) in two waves. With our time-lagged research design, these results reflect the relationship among variables. Perhaps, a more elegant longitudinal design that lengthens the time interval between multiple measurements while controlling for any kind of major experiential and situational change could yield increased understanding. Upcoming studies should consider using complete cross-lagged panel designs with at least three measurement waves to understand the causal ordering of the variables.

Our entire sample came from five high-tech companies, giving a sample lacking in diversity. Future research might consider adding participants from the non-tech areas of the economy to determine whether our results generalize across multiple industries and job types. Although our study extended the AC literature with a sample that comes from a Middle Eastern culture, a study that reexamines our work with cross-cultural comparisons (e.g., Middle Eastern collectivism versus East Asian collectivism versus individualism) could increase interest.

In the current study, we did not measure participants' orientation of societal culture and organizational culture because our primary focus is on the effects of participants' personality on AC through PA and NA. Grounded in previous research (e.g., Kagitcibasi, 1997; Uskul et al., 2010), we assumed that honor-based collectivism is the salient cultural characteristic of our Turkish participants. Although we surveyed the participants from five Turkish technology organizations which might lessen the possibility of one organization's culture uniquely influencing our findings, future research examining the association of personality

and AC might aim to control extraneous effects of organizational culture on AC.

Conclusion

The present study demonstrated that the association of an individual's personality (extraversion and agreeableness) with affective state (PA) can sway his/her AC. Moreover, our study adds to the current AC literature, with the inclusion of the CSE moderator variable. More precisely, the significant indirect effect of both extraversion and agreeableness on AC through PA for employees with a high-and-medium CSE score is newsworthy. Examining these relationships with a moderated mediation model that incorporated a bootstrap procedure gives researchers a sophisticated statistical technique for testing conditional and indirect effects and arriving at a more complete understanding of how the combination of two Big-Five personality traits, CSE, and PA state can help shape an employee's attachment, identification, and engagement in the organization. Discovering personality and affective state predictors of AC is also meaningful because the research literature has shown that AC is related to employees' well-being. Finally, conducting this research in a Middle Eastern collectivist culture that primarily values in-group honor instead of the East Asian societal modesty gives added clarity on how well our moderated mediation models travel to a starkly different collectivist culture.

Conflict of Interest

The authors of this article declare no conflict of interest.

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