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Açık Erişim

The Relation between Positive Humor Use and Authenticity: Mediation of Cognitive Flexibility and Psychological Vulnerability

Özgünlük ile Olumlu Mizah Kullanımı İlişkisinde Bilişsel Esneklik ve Psikolojik Kırılganlığın Aracılığı

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ABSTRACT

In the literature, authenticity is stressed as one of the main sources of well-being. At the same time, authenticity is considered as crucial for functional therapeutic outcomes in many counseling approaches and therapeutic relationships. However, although authenticity is considered as an inherent determinant of well-being and therapeutic functioning, there are hardly any studies to explain authenticity. Therefore, the goal of the current study is to examine the mediating roles of cognitive flexibility and psychological vulnerability in the relationship between positive humor use and authenticity amongst undergraduate participants. In the study, data were collected from 660 participants through the Short Form of Authenticity Inventory, Cognitive Flexibility Inventory, Psychological Vulnerability Scale, Humor Styles Questionnaire and a personal information sheet. In the analysis of the data, a bootstrapping-based multi-mediation test was used. According to the results of the mediation test, partial mediation model was confirmed. In other words, it was revealed that the use of positive humor predicts authenticity both directly and indirectly through cognitive flexibility and psychological vulnerability. Findings were integrated and discussed within the framework of the relevant literature, and recommendations were offered.

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ÖZET

Yazında özgünlük, iyi-oluşun temel kaynaklarından birisi olarak vurgulanmaktadır. Aynı zamanda özgünlük, birçok psikolojik danışma yaklaşımında olumlu çıktılar ve terapötik ilişki için önemli görülmektedir. Özgünlük, içkin olarak iyi-oluşun ve terapötik işlevselliğin önemli bir belirleyicisi olmasına karşın özgünlüğü açıklamaya yönelik yeterli araştırma yoktur. Bu nedenle bu çalışmada, özgünlük ile olumlu mizah kullanımı ilişkisinde bilişsel esnekliğin ve psikolojik kırılganlığın aracılık rollerinin lisans öğrencilerinden oluşan katılımcılarda incelenmesi amaçlanmıştır. Bu amaç çerçevesinde, 660 lisans öğrencisinden Özgünlük Envanteri kısa formu, Bilişsel Esneklik Envanteri, Psikolojik İncinebilirlik Ölçeği, Mizah Tarzları Ölçeği ve kişisel bilgi formu aracılığıyla veri toplanmıştır. Verilerin analizinde bootstrapping temelli çoklu aracılık testi kullanılmıştır. Aracılık testi sonucunda kısmi aracılığı gösteren ilişkiler doğrulanmıştır. Kısmi aracılık, olumlu mizah kullanma eğiliminin hem doğrudan hem de bilişsel esneklik ve psikolojik kırılganlık aracılığıyla dolaylı olarak özgünlüğü yordadığını göstermektedir. Bulgular ilgili yazın çerçevesinde tartışılmış ve öneriler sunulmuştur.

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INTRODUCTION

The dualism between freedom and determinism is one of the basic dilemmas of human beings (De Castro, 2013). As a result of the responsibility to decide and choose in uncertainty, modern humans can experience an existential vacuum (Schlegel, Hicks, Arndt, & King, 2009). Based on this dilemma, a life has been formed that is strictly determined by modern institutions today (Martens, 2007). This makes it difficult for the individual to clearly respond the timeless questions “who am I” and to choose an authentic existence (Cole, 2016).

Authenticity operationally describes reflecting and behaving true and core self in the daily enterprise (Kernis & Goldman, 2006). Similar line of reasoning authenticity describes the overlap between ideal and actual selves (Barnett & Deutsch, 2016; Wood, Linley, Maltby, Baliousis, & Joseph, 2008). Authenticity reflects consistency among behavior, emotion, and intentions as well as openness to experience, self-awareness and belief in actualization their full potential (Medlock, 2012), and also choosing one's own life, being honest, natural and real to one's self (Safran, 2017).

Authenticity is an important concept discussed as a result of questioning social norms and the process of creating self. Authenticity is a creative self-construction process developed to get rid of the alienation that originates as a result of completely conforming to social norms (Lenton, Bruder, Slabu, & Sedikides, 2013). At the same time, authenticity should not be considered as a complete rupture of one's self from social relations, because authenticity is an important phenomenon contributing to social functioning (Smallenbroek, Zelenski, & Whelan, 2017). Furthermore, the relational component of authenticity reflects a supportive attitude for the authentic existence of others as well as the individual's own authenticity (Kernis & Goldman, 2006).

Culture may be an important moderator in the relationship between authentic self-development and social norms. In the context of authenticity and culture, arguably, while there is an expectation of consistency in the narrow circle of family and close friends in Eastern cultures, there may be a general expectation of consistency in western cultures (English & Chen, 2011). Since culture is an important feedback mechanism for behaviors, it is one of the main factors determining the perception of behavior as being authentic or inauthentic (Kokkoris & Kühnen, 2014). Nevertheless, authenticity is a crucial concept for all cultures (Church et al., 2013; Kagitcibasi, 2005; Slabu, Lenton, Sedikides, & Bruder, 2014). At the same time, in modern global culture, the self can be objectified by mass media (Rollero, 2016), and the illusion of authenticity created in conjunction with neoliberalism can be used as a self-disciplinary device (Foster, 2016). While today's people seem to be liberating in terms of constructing an authentic life, they may actually be overwhelmed in a very rigidly constructed environment (Martens, 2007).

The accumulated evidence from research has shown that authenticity is an important positive predictor of well-being (Kernis & Goldman, 2006; Robinson, Lopez, Ramos, & Nartova-Bochaver, 2013; Sheldon, Ryan, Rawsthorne, & Ilardi, 1997; Vainio & Daukantaitė, 2016; Wang & Li, 2018; Wood et al., 2008), meaning in life (Schlegel et al., 2009), and self-esteem (Heppner et al., 2008; Wood et al., 2008). On the other hand, authenticity negatively predicts concepts that can be associated with psychological difficulties such as aggression (Pinto, Maltby, Wood, & Day, 2012), contingent self-worth (McCormick, Turner, & Foster, 2015), psychological distress (Boyras & Kuhl, 2015) as well as anxiety, alcohol use and depressive-physical symptoms (Bryan, Baker, & Tou, 2017). Although there are ongoing conceptual debates about

authenticity, available research findings show that authenticity contributes to functionality within its' own right.

Humor

Humor is one of the phenomena that can be important in preserving and improving authenticity. Humor can evolutionarily enable survival by facilitating adaptation to the environment (Caron, 2002). Humor can increase resilience in the face of life problems (Gladding, 1995; Gladding & Melanie, 2016; Smies, 2003), self-distance as well as mood problems (Keltner & Bonanno, 1997; Kuiper, Martin, & Olinger, 1993) and can be an important method of self-protection against social norms (Edwards & Martin, 2014; Freud, 1928; Pettifor, 1982) in dealing with problems that could threaten existence (Frankl, 1963).

An important function of humor is that it is an inherent source of pleasure in social constraints (Hull, Tosun, & Vaid, 2017; Major, 1999). Humor is also an important emotion regulation method (Samson & Gross, 2012). It may also contribute to physical health (Gelkopf & Kreitler, 1996; Martin, 2001).

In a study conducted using stress priming, it was found that people who use self-enhancing humor perceive lower stress and experience lower anxiety (Ford, Lappi, O'Connor, & Banos, 2017). In another study also, moderator role of humor in the relationship between stressors and psychological distress was revealed (Fritz, Russek, & Dillon, 2017), and partial mediation role of affiliative humor relations between shyness and loneliness was also found (Fitts, Seby, & Zlokovich, 2009). Further research indicates that self-enhancing humor positively predicts subjective well-being (Jovanovic, 2011; Özbay, Palanci, Kandemir, & Çakır, 2012), and subjective happiness (Ford, Lappi, & Holden, 2016). In experimental studies, it was found that humor can increase self-efficacy (Smies, 2003), and is effective in regulating positive emotions (Samson & Gross, 2012).

Cognitive Flexibility

Cognitive flexibility; reflects the tendency to perceive difficult situations as controllable, to produce multiple explanations for human behavior and life events, and to develop alternative solutions in difficult situations (Dennis & Vander Wal, 2010). Cognitive flexibility defines awareness of alternatives, willingness to change and adapt, and self-efficacy towards flexibility (Martin & Anderson, 1998). Cognitive flexibility is described as a basic competence in terms of developing behaviors compatible with changing environmental demands (Kloo, Perner, Aichhorn, & Schmidhuber, 2010; Prado, Janickova, Al-Onaizi, & Prado, 2017). In this respect, cognitive flexibility is considered as an effective way to increase well-being by regulating effective responses to stress sources and crisis situations encountered in life (Cardom, 2017), and by being able to go beyond the usual reaction patterns (Dajani & Uddin, 2015).

In an experimental study, it was found that stress limits cognitive flexibility in men (Shields, Trainor, Lam, & Yonelinas, 2016). The negative effects of various stressors on cognitive flexibility have been examined in studies. For example, it has been found that socio-economic disadvantage can lead to a slowdown in the development of infants' cognitive flexibility (Clearfield & Niman, 2012). Research has found that cognitive flexibility positively predicts post-traumatic growth (Keith, Velezmoro, & O'Brien, 2015), and problem-focused coping (Johnson, 2016). In the conducted studies in Turkey, it was found that cognitive flexibility was negatively predicted by irrational beliefs, obsessive attachment, and anxiety (Gunduz, 2013) and there were negative correlation among cognitive flexibility and depression/anxiety (Dag & Gülüm, 2013). In a longitudinal study, it was found that the baseline hopelessness measure

moderate the relationship between cognitive flexibility and hopelessness in the second measure (Yu & Lee, 2017).

Psychological Vulnerability

Psychological vulnerability is defined as cognitive belief patterns that include self-worth's dependence on success or external approval (Sinclair & Wallston, 1999). Similarly, psychological vulnerability is the cognitive structures that make individuals more sensitive in terms of stress and social dependence, self-perfectionism, negative attitudes and self-blame mechanisms (Sinclair & Wallston, 2010). This approach overlaps with the premises of cognitive behavioral approaches. According to cognitive therapies, negative thinking styles and schemas are the main causes of vulnerability. Hopelessness, exaggeration of external influence, and perceptions of self-sabotage are factors that increase cognitive vulnerability (Kovacs & Beck, 1978). Similar line of reasoning, when people transform their strong choices or demands for affection, comfort and success into a rigid imperative, they often feel hostile, anxious or miserable (Kendall et al., 1995).

In the study by Sinclair and Wallston (1999), psychological vulnerability was found to be correlated positively with learned helplessness, dysfunctional coping with pain, and negative affect, however, correlated negatively with life satisfaction, positive affect, self-efficacy and perceived social support. In another study, depressive symptoms were found to be positively predicted by psychological vulnerability in individuals with rheumatoid arthritis (Sinclair & Wallston, 2010). Studies show that psychological vulnerability is also an important indices depressive symptom in non-clinical samples. Accordingly, amongst a convenience sample of undergraduates, depressive symptomology (Nogueira, Barros, & Sequeira, 2017) and hopelessness (Satici & Uysal, 2017) were positively predicted by psychological vulnerability. In other studies, the mediating role of mindfulness in the relationship between psychological vulnerability and shyness was found (Sarıçalı & Satici, 2017), and it was also revealed that psychological vulnerability positively predicted problematic Facebook use (Satici, Saricali, Satici, & Eraslan Capan, 2014). Further studies indicated that, psychological vulnerability negatively predicted flourishing (Uysal, 2015), authenticity (Satici, Kayis, & Akin, 2013), and positively social anxiety (Palancı 2004).

The Current Study

In literature, authenticity is considered as an ambiguous concept (Burks & Robbins, 2011; Medlock, 2012), and the boundary between authenticity and inauthenticity is highly complex because of the predominance of white middle-class western values (Walker & Taylor, 2014) which may limit any authenticity research. The most important reason for this confusion is the complex nature of the self and the lack of consensus in the literature regarding the self (Gülerce, 2014; McConnell, 2011). Therefore, although authenticity is seen as an inherently important indicator of well-being, variables that explain authenticity need to be determined.

In the current study, the aim has been to contribute to the synthesis of the theoretical paradigms by examining the cognitive variables together with the authenticity, which is one of the basic concepts of existentialist and humanistic theory. It is argued that the synthesis of the cognitive variables together with Rogers' person-centered approach will contribute to the paradigmatic integration and pragmatic practice (Motschnig & Nykl, 2003). Based on this philosophy, the fact that the interaction of here and now is at the center in Humanistic and Existentialist Theories supports the idea that cognitive tools are effective

in processing inputs to the self (Sleeth, 2007). In this sense, positive humor, cognitive flexibility and psychological vulnerability are considered to be variables that can explain authenticity. The prediction that positive humor can explain authenticity through cognitive structures predicated on the basic propositions of Broaden and Build Theory. According to the Broaden and Build Theory, experiencing positive emotions such as pleasure, play, and joy can expand an individual's behavioral and cognitive repertoire (Fredrickson, 2004). In addition to expanding the cognitive and behavioral repertoire by positive affect, it is emphasized that positive affect may expand the behavioral repertoire of the self in the context of cultural norms (Ashton-James, Maddux, Galinsky, & Chartrand, 2009).

Furthermore, studies show that cognitive flexibility can contribute to self-compassion (Martin, Staggars, & Anderson, 2011) mindfulness (Moore & Malinowski, 2009), creativity (Müller, Gerasimova, & Ritter, 2016), and reduce dogmatic thinking (Martin et al., 2011). In addition to the aforementioned contributions, it was expected that cognitive flexibility developed through humor could contribute to authenticity in the current study.

Beside cognitive flexibility, it was expected that humor could contribute to authenticity by reducing psychological vulnerability, which defines negative cognitions in the face of stress as well as and seeking social approval (Sinclair & Wallston, 1999). Individual's excessive dependence and sensitivity to social relationships (Beck et al., 2001), and dogmatic, rigid demands of the individual towards themselves or the social relations (Ellis, 2003) are the main factors of vulnerability. People often exhibit inauthentic behaviors because of their perceptions of social rejection, punishment, and disapproval (Leary, 2003). Therefore, the following research questions were investigated in this study within the scope of the given theoretical propositions and research findings.

1. Does the use of positive humor significantly predict authenticity?
2. Does cognitive flexibility mediate the relationship between positive humor use and authenticity?
3. Does psychological vulnerability mediate the relationship between positive humor use and authenticity?

METHOD

Participants

A total of 660 volunteer students aged between 18 and 34 ($M = 21.01$; $sd = 1.94$) from nine faculties participated in this study. 352 of the participants are women and 305 of them are men. The remaining three participants did not provide any information about their gender.

Ethical Statement

The authors declare that they continue to work in accordance with scientific study ethics and the Helenski declaration in this study. Accordingly, the research was reviewed by the Social Sciences Research Ethics Board of AU Anadolu University and permission was given (REF: 126575). In addition, the participants participated in the study on a voluntary basis.

Measures

Authenticity Inventory. It is a short form of the 45-item authenticity inventory developed by Kernis and Goldman (2006) and adapted to Turkish by İmamoğlu, Günaydın and Selçuk (2011). The inventory has been set on a seven-point Likert scale, from 1 (never agree) to 7 (strongly agree). The inventory consists of four sub-dimensions, namely: relational authenticity, unbiased processing, awareness, and

authentic behavior. Result of confirmatory factor analysis, the values are at an acceptable level (χ^2 (16, N = 341) = 35.03, $p < .004$, RMSEA = .06, GFI = .98, AGFI = .94, NFI = .97, CFI = .98) (İmamoğlu et al., 2011). The internal consistency values of the authenticity inventory were found to be .77 for unbiased processing, .77 for relational authenticity, .76 for awareness, .66 for authentic behavior, and .84 for the whole inventory (İmamoğlu, Selçuk, & Günaydın 2011). In this study, the internal consistency values were; .80 for relational, .80 for unbiased processing, .82 for awareness, .73 for behavioral dimensions and .84 for the total inventory.

Cognitive Flexibility Inventory. The original form of the scale was developed by Dennis and Vander Wal (2010). It was adapted to Turkish culture by Sapmaz and Doğan (2013). The scale consists of 20 items and has a five-point rating. Values obtained as a result of confirmatory factor analysis are in the acceptable range ($\chi^2 = 406.98$, $sd = 167$, $\chi^2 / sd = 2.44$, AGFI = 0.90, GFI = 0.92, NFI = 0.96, RFI = 0.95, CFI = 0.98, IFI = 0.98, RMR = 0.052, RMSEA = 0.054) (Sapmaz & Doğan, 2013). In terms of reliability, the scale was .75 for the whole scale, .78 for the alternatives sub-dimension, and .73 for the control sub-dimension (Sapmaz & Doğan, 2013). In this study .81 for the control sub-dimension, .89 for the alternatives sub-dimension, and .88 for the total of the scale internal consistency coefficient values were obtained.

Psychological Vulnerability Scales. The Psychological Vulnerability Scale was developed by Sinclair and Wallston (1999). The scale was adapted to Turkish culture by Erözkan (2004). As a result of the adaptation, the internal consistency coefficient of the scale was found to be .73. The scale consisting of six items has a 5-point Likert type rating. In the adaptation study of the scale, confirmatory factor analysis was not applied. Therefore in this study confirmatory factor analyses was conducted for the scale. In the current study, the internal consistency coefficient of the scale was found .71. Regression coefficients standardized according to the results of the confirmatory factor analysis performed in this study ranged from .45 to .67 ($p < .001$). When the goodness of fit indices are taken into consideration to see if the scale is verified or not, it is seen that the data have acceptable goodness of fit indices. According to the analysis results, fit indices: χ^2 (9 N = 660) = 37.81, $\chi^2 / df = 4.20$, $p < .001$; GFI = .98; CFI = .95; TLI = .92; SRMR = .036; RMSEA = .070.

Humor Styles Questionnaire. The Humor Styles Scale by Martin et al. (2003) has been designed as a four-dimensional structure. Two of the four dimensions are negative (self-destructive and aggressive humor) and two are positive (self-enhancing and affiliative humor). The scale was adapted to Turkish culture by Yerlikaya (2003). In the adaptation study, internal consistency coefficients are .80, .81, .77 and .80 for affiliative, self-enhancing, aggressive and self-destructive humor styles, respectively (Yerlikaya, 2003). Considering the validity of the scale, it was found as a result of the explanatory factor analysis that the factor loads of the items in the scale varied between .32 and .75 and these values explained 36.9% of the total variance (Yerlikaya, 2003). In terms of internal consistency, values of .81 for affiliative humor sub-dimension and .86 for self-enhancing humor sub-dimension were obtained in this study.

Personal Information Form. It was designed by the researchers. The form contains questions to determine the age, gender, faculty and class levels of the participants.

Procedures

First of all, all stages of the research were reviewed by the Anadolu University ethics board (REF: 126575) and application permission was given. Four forms were prepared to apply the counterbalancing process

by changing the orders of the four scales used in the research equally. The forms that were created were filled out by 11 volunteer participants and feedback was received from the participants in terms of understandability and readability. Then, final version of data set was applied for study group.

Data Analysis

In the analysis of the model proposed in the research, the mediation model of Preacher and Hayes (2008), which allows revealing indirect relationships was used. Bootstrapping method was used to control the sample-based margin of error and statistically strengthen the research. This method provides convenience for the estimation of indirect effects through statistical resampling methods (Preacher & Hayes, 2008). Increasing the representation power of the sample with bootstrapping is considered as one of the ways to prevent type-1 error (Hayes & Scharkow, 2013). In the Bootstrapping method, the estimated value of the mediating variables should be .95 and the confidence interval not including zero considering proposed model statistically significant (Preacher & Kelley, 2011). For this study, 10.000 bootstrapping resampling were performed. Gender and age were included in the model as control variables. In the study, PROCESS Macro plug-in developed by Preacher and Hayes (2004) for the SPSS program (Preacher & Hayes, 2004) was used for bootstrapping analysis.

RESULTS

Before presenting the findings for the model, distributions, means, standard deviations, skewness and kurtosis values concerning the authenticity, cognitive flexibility, psychological vulnerability and positive humor style use were given. The correlation coefficients between the variables examined are shown in Table 1. The table for the Pearson Moment Product Correlation Coefficients between the variables of the model is provided below.

Table 1. Relationships between variables and descriptive statistics

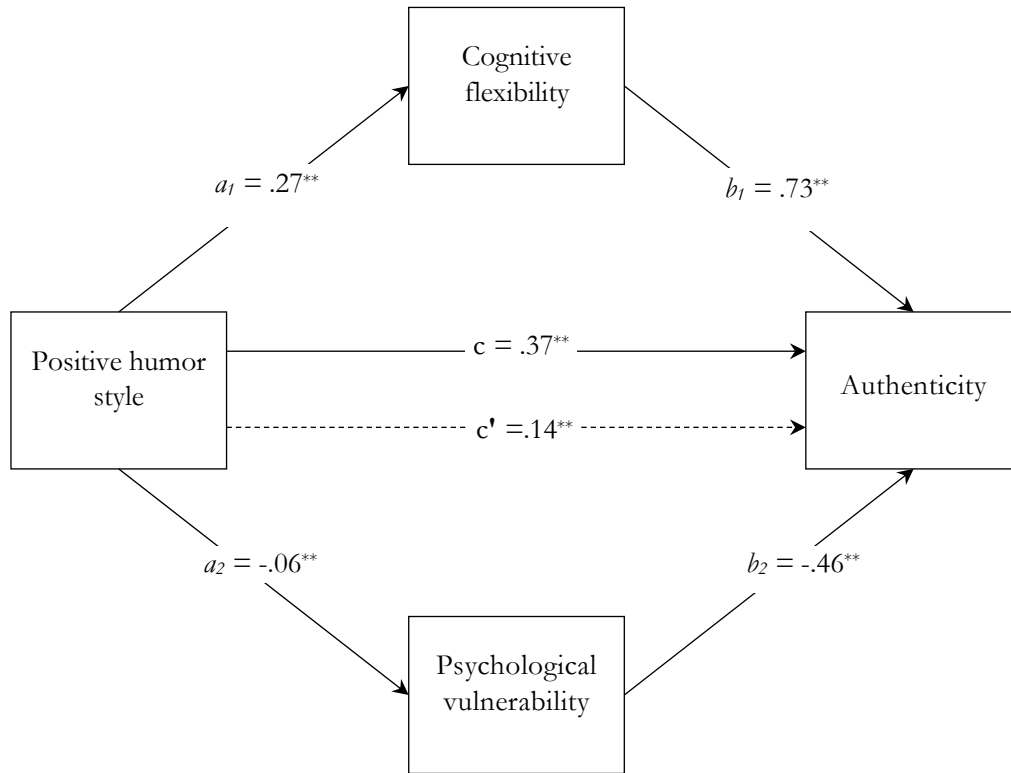
Variables	1	2	3	4
1. Authenticity	-			
2. Positive humor style	.31**	-		
3. Cognitive flexibility	.49**	.38**	-	
4. Psychological vulnerability	-.25**	-.21**	-.28**	-
Average	142.01	79.28	74.39	16.18
Standard deviation	18.29	15.30	10.78	4.44
Skewness	-.49	-.22	-.02	.33
Kurtosis	-.11	-.154	.07	-.05

Note: * $p < .05$, ** $p < .01$

As seen in Table 1, positive significant relationships were observed between the authenticity of participants and their positive humor use ($r = .31$, $p < .01$) and cognitive flexibility ($r = .49$, $p < .01$). Similarly, a positive significant relationship was found between the use of positive humor and cognitive flexibility ($r = .38$, $p < .01$). On the other hand, negative significant relations between positive humor style and psychological vulnerability ($r = -.21$, $p < .01$) were observed. Regarding the descriptive analysis of the variables: the values of skewness and kurtosis were obtained as $-.49$ and $-.11$ for authenticity, $-.22$ and $-.15$ for positive humor, $-.02$ and $.07$ for cognitive flexibility, and $.33$ and $-.05$ for psychological vulnerability, respectively. Since all these values are between ± 3 (Kline, 2011), it was determined that all variables were normally distributed.

Mediation Analysis

In the research model, the mediator roles of cognitive flexibility and psychological vulnerability between tendencies to use positive humor and authenticity were examined. Findings regarding the bootstrapping analysis performed for this model are presented in Figure 1.



Note: ** $p < .01$

Figure 1. Cognitive flexibility and psychological vulnerability mediate between positive humor style and authenticity

As shown in the direct effects in Figure 1, the use of positive humor directly, positively and significantly predicts the cognitive flexibility levels of participants ($\beta = .27, p < .01$). Similarly, the use of positive humor predicts students' psychological vulnerability directly, negatively and significantly ($\beta = -.06, p < .01$). It is seen that cognitive flexibility ($\beta = .73, p < .01$) positively predicts authenticity, while psychological vulnerability ($\beta = -.46, p < .01$) predicts significantly and negatively.

It is seen that the total effect of positive humor use on authenticity is .37, but when the mediator variables, cognitive flexibility and psychological vulnerability, are included in the model, this effect decreases to .14 and this value is also significant. As a result, it is understood that there is a partial mediation. Bootstrapping coefficient and 95% confidence intervals (CI) regarding whether the indirect effects for partial mediation are significant are presented in Table 2.

Table 2. Bootstrapping results for mediating cognitive flexibility and psychological vulnerability between positive humor style and authenticity

Indirect effects	Bootstrap Coefficient	SE	%95 CI		R ²	F
			Lower Limit	Upper Limit		
PHS → cognitive flexibility → authenticity	.20	.028	.146	.255	.36	72.79**
PHS → psychological vulnerability → authenticity	.03	.010	.011	.052		

Not: ** $p < .01$; PHS Positive humor style; SE standard error; CI confidence interval

As a result of the bootstrapping analysis, it is understood that the indirect effect of cognitive flexibility between positive humor style and authenticity is significant (Bootstrap coefficient = .20, 95% CI = .146, .255). Similarly, the indirect effect of psychological vulnerability between positive humor style and authenticity is also significant (Bootstrap coefficient = .03, 95% CI = .011 .052). Taken all these results into consideration, it can be stated that cognitive flexibility and psychological vulnerability are partial mediators in the relationship between positive humor style and authenticity. In addition, when Table 2 is examined, it can be seen that the variables in the model explaining 36% of the total variance of authenticity and the model are significant [$F(5, 649) = 72.79, p < .001$].

DISCUSSION

In this study, the mediator role of cognitive flexibility and psychological vulnerability in the relationship between positive humor style and authenticity was investigated. The results show that positive humor style is a significant positive predictor of authenticity, and this relationship is mediated partly by cognitive flexibility and psychological vulnerability. These findings show that the use of positive humor is a direct predictor of authenticity, and that indirect relationships are significant through mediator variables.

The finding of the research that authenticity is positively predicted by the use of positive humor is consistent with research findings and theoretical views showing that positive affect was robust predictors of authenticity (Cooper, Sherman, Rauthmann, Serfass, & Brown, 2018; Erickson, 1995; Sedikides, Lenton, Slabu, & Thomaes, 2018). Also, the explanation for the authenticity of humor is in line with the proposition that humor is a basic self-preservation strategy (Ellis, 1987; Frankl, 1963; Freud, 1928; Metzger, 2014). One of the reasons that Humor's being an important self-preservation method is that humor makes it easier to break out of cultural way of thinking. In this study, the prediction of authenticity by positive humor overlaps with the finding that positive affect can facilitate acting outside cultural patterns (Ashton-James et al., 2009). Given the view that humor is an effective method against social constraints (Gladding, 1995; Gladding & Melanie, 2016), it can be inferred that it is also an effective method in stretching the social limitations encountered in reflecting authentic self. The use of humor as a force for change in the therapeutic process (Fitzpatrick & Stalikas, 2008; Sultanoff, 2013) also seems to be related to the acceptance and social acceptance of authentic existence.

Within the scope of the research, partial mediation was proposed in response to the question whether cognitive flexibility mediates the relationship between positive humor and authenticity. The explanation of the authenticity by the positive mood is criticized on the grounds that a person with antisocial tendencies may feel authentic (Jongman-Sereno & Leary, 2018). Considering this criticism, volitional variables are required as well as heuristic variables that explain authenticity. Considering the emotional component of humor, research findings that provide evidence for the Broaden and Build hypotheses, which demonstrate the positive affect can expand cognitive repertoire (Chang, 2017; Fredrickson, 2004;

Fredrickson & Branigan, 2005; Tugade, 2004) are consistent with the finding that positive humor use predicts cognitive flexibility. The development of positive effect as a result of the use of positive humor (Gerbino et al., 2018) shows that humor can influence cognitive processes, which is in line with the premises of the Broaden and Build Theory.

Through humor, a person is able to stretch priori assumptions and generate new cognitive syntheses (Papousek et al., 2017), and it may internally reinforce that problems can be difficult but not impossible to solve (Gladding, 1995; Gladding & Melanie, 2016). Besides these theoretical predictions, humor can activate parts of the brain that process complex information (Dai et al., 2017), can increase creativity (Wycoff & Pryor, 2003), and sincere smiling can broaden attention (Johnson, Waugh, & Fredrickson, 2010). The finding of the current study that the use of positive humor predicts cognitive flexibility is in line with the given findings.

Moreover, the current study revealed that positive humor can partially explain authenticity through cognitive flexibility. This finding is in line with the proposition that cognitive flexibility can enhance control perception (Dennis & Vander Wal, 2010), and that the perception of power, a structure similar to the perception of controllability, is the main determinant of authenticity (Chen, 2018). It is emphasized that for the autonomous functionality of the self, it should be informed by the executive cognitions that cognitive flexibility is also the main component (Ryan & Deci, 2006). Keeping this proposition in mind, the finding in this study that cognitive flexibility predicts authenticity overlaps with the findings that cognitive flexibility predicts mindfulness (Moore & Malinowski, 2009), flow (Moore, 2013), as well as negatively predicting dogmatic thinking (Martin et al., 2011). Accordingly, theoretically authenticity has two dimensions; identity and entity, and entity component can be affected by instant cognitive inputs (Sleeth, 2007). In essence, the use of positive humor can facilitate the intuition that there may be another way of thinking in situations of self-restrain. As a result, the person can think more flexibly, evaluate the problems they encounter under control, and act in accordance with their authentic self.

Another finding obtained within the scope of the study is the partial mediating role of psychological vulnerability in the relationship between positive humor use and authenticity. This finding is consistent with the findings showing that humor is effective in handling stress conditions (Dowling, Hockenberry, & Gregory, 2003; Romundstad, Svebak, Holen, & Holmen, 2016; Ware, 2012). Thus, it can be speculated that the hypothesis that humor can facilitate the separation between self and stressors (Keltner & Bonanno, 1997) is still worthy of consideration because psychological vulnerability may emerge as a result of stressing situations attributing to self-worth (Sinclair & Wallston, 1999). At the same time, humor is an important factor that can increase resilience (Kuiper, 2012; Tucker, 2016), a factor which may be regarded as an opponent of psychological vulnerability. Hence, along the lines of the findings of this research, positive humor may be fruitful to control psychological vulnerability, which is a potential stressor in the reflection of the authentic self.

Conclusion

In this study, it was found that positive humor use, cognitive flexibility, and psychological vulnerability were significant predictors of authenticity. In line with the mediation model, it was found that the use of positive humor predicted authenticity and it was inferred that positive humor was an effective coping method in conditions restricting authenticity. Considering the finding that cognitive flexibility and

psychological vulnerability partially mediate the relationship between authenticity and positive humor, it may be deduced that individual may be more authentic by increasing control over cognitive processes.

Limitations and Recommendations

Although this research reveals some important findings, some limitations should also be noted.

Firstly, this research was carried out cross-sectional with self-report data. Stronger causal clues can be obtained with longitudinal data in future research. At the same time, studies with higher external validity can be carried out by obtaining data in daily life with the experimental sampling method.

Secondly, in this study, as an individual factor, authenticity was examined. More comprehensively, ethnographic research can yield impressive results in order to observe the function and transformation of authenticity in university cultures in today's neoliberal system.

Thirdly, this study showed that the use of positive humor along with cognitive factors can contribute to the enhancement of authenticity. This finding may be seminal for counselors working with clients who have difficulties regarding to be authentic. Nevertheless, causal relations and internal validity of this finding may be strengthened in the experimental setting by using humor priming in future studies by specifically therapeutic relationship.

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Author Contributions

This study was conducted by all the authors working together and cooperatively. All of the authors substantially contributed to this work in each step of the study.

Conflict of Interest

It has been reported by the authors that there is no conflict of interest.

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Ethical Statement

This study was completed in accordance with the Helsinki Declaration. All stages of this study was approved by Social Sciences Ethics Board of AU Anadolu University

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