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EUDAIMONIA INVOLVES COMPLEXITY: EGO DEVELOPMENT AND EUDAIMONIC FUNCTIONING

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Eudaimonia is theorized to be a more complex type of positive functioning than hedonia, associated with personality development and maturity. In this study, we aimed to find out whether ego development (ED), proposed as a measure of psychosocial maturity, is related to eudaimonic well-being and whether trait indicators of eudaimonic functioning can explain this association. Adult participants from a community sample (N = 357, age 18-80, 63% female) completed Russian versions of WUSCT, MLQ, HEMA-R, and MHC-SF. The results of structural equation modeling indicate that trait indicators of eudaimonic functioning can explain the association between ED and eudaimonic well-being, providing some support for the view of eudaimonia as a complex type of flourishing more easily attained by mature personalities.

JEL Classification: Z.

Keywords: eudaimonia, ego development, well-being, mental health, structural equation modeling

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Introduction

The research into eudaimonia and hedonia began with the question whether they are different types of well-being or different pathways to well-being (Ryan & Deci, 2001; Kashdan et al., 2008). Although a consensus is yet to be reached, recent empirical and theoretical work suggests that eudaimonia and hedonia can be conceptualized as two distinct types of positive functioning (Huta, 2016; Vittersø, 2016a) associated with different activities, motivational patterns, and emotional states, despite both being positively related to trait well-being indicators.

According to the functional model of well-being (Vittersø, 2016a), hedonia is a simpler type of positive functioning that involves satisfying one's needs and maintaining homeostasis, and is reflected in the feelings of pleasure and satisfaction; in turn, eudaimonia involves effortful growth, overcoming challenges, and is reflected in the experience of interest. Hedonic motives comprise striving for pleasure and comfort, avoidance of distress and negative emotions, whereas eudaimonic motives comprise the pursuit of personal growth, meaning, authenticity, and excellence (Huta, 2016). In a systematic review of existing theories of eudaimonia, growth and meaning emerged as two universal themes (Huta & Waterman, 2014).

Because it is a more complex type of positive functioning, one would expect eudaimonia to be based on more complex cognitive processes and personality structures developed through a lifespan. The idea that eudaimonia is related to maturity has been expressed by various authors (see Vittersø, 2016b). However, empirical support for this link is scarce, as maturity is rather difficult to measure. One theory of adult development that proposes a valid and reliable measure is Loevinger's (1976) theory of Ego Development, which describes a sequence of nine developmental stages (labelled E1 to E9) reflecting a progressive reorganization of the self and characterized by distinct features of character, cognitive style, interpersonal style, and conscious preoccupations. The levels of ED can be understood as distinct forms of meaning-making, templates, or frameworks that individuals continuously apply to their experiences. As ED level increases, individuals gradually progress from rigid and simplified understanding of the world (e.g. dichotomous "good vs. bad" evaluations) to increased complexity and integration of thinking about oneself and others (Hauser, 1993). To assess ED level, Loevinger developed the Washington University Sentence Completion Test (WUSCT; Hy & Loevinger, 1996) with extensive evidence of validity (Gilmore & Durkin, 2001).

Within the context of well-being research, the ED level has previously been proposed as a measure of psychosocial maturity (Bauer, 2016). Most notably, Bauer & McAdams (2010) found that intellectual-growth goals predicted increased ED, whereas socioemotional-growth goals

predicted higher subjective well-being (SWB) in young adults in a 3-year perspective. They proposed the concept of eudaimonic growth defined as a combination of SWB and psychosocial maturity. However, the correlations of ED with SWB have been modest, at best (e.g., r = .22 and r = .00 in Bauer & McAdams, 2010), and it was only at the highest ED stages that higher SWB scores were discovered more or less consistently (Bauer, 2011; Bauer, Schwab, & McAdams, 2011)

Given the scarcity of existing evidence, we sought to re-examine this link in a different cultural setting using a measure of eudaimonic well-being, rather than SWB, whose common measures tend to contain a mixture of hedonic and eudaimonic indicators (Vittersø, 2016a). Building on Bauer (2011), we hypothesized that ED should be associated with eudaimonic well-being, and their shared variance should be fully mediated by indicators of eudaimonic functioning.

Methods

Participants

Participants were 357 anonymous Russian-speaking volunteers (130 males and 227 females, aged 18 to 85, median 27) who agreed to take part in an online study of views on life meaning. Participants could opt-in to receive brief feedback on their scores. We had aimed for a minimum N = 193 to detect a typical effect size (r = .20) with 80% power.

Measures

Washington University Sentence Completion Test (WUSCT)

The short form of WUSCT (Hy & Loevinger, 1996) includes 18 open-ended sentences (e.g., "When people are helpless…") the respondents are asked to complete. Each response is assigned an ED level ranging from E2 (Impulsive) to E9 (Integrated). Each protocol was scored by an experienced rater with four weeks of training and was moderated by another rater with several years of experience in coding the WUSCT. We used the item sum score approach recommended for the 18-item version to generate a total protocol rating.

Hedonic and Eudaimonic Motives for Activities-Revised (HEMA-R; Huta, 2015)

The HEMA-R consists of 11 items rated on a 5-point scale assessing hedonic (reflects the concept of pleasure) and eudaimonic motives (authenticity, excellence, growth, and meaning). Internal consistency coefficients for all measures are given in Table 1.

Mental Health Continuum — Short Form (MHC-SF; Keyes et al., 2011).

MHC-SF includes 14 items rated on a 6-point scale and tapping into Emotional Well-Being (happiness, interest, and satisfaction), Social Well-Being (social contribution, integration, growth, acceptance, and coherence), and Psychological Well-Being (self-acceptance, environmental mastery, positive relations, personal growth, autonomy, and purpose in life).

Meaning in Life Questionnaire (MLQ; Steger et al., 2006)

MLQ is a brief measure of meaning with two subscales, Presence of Meaning (e.g., My life has a clear sense of purpose), and Search for Meaning (e.g., I am seeking a purpose or mission for my life). It includes 10 items rated on a 5-point scale.

Results

In terms of the distribution of individuals across the ED levels, the sample was consistent with existing findings, revealing a prevalence of conventional ego stages (see Appendix). The correlations (see Table 1) reveal weak positive associations of ED scores with eudaimonic motives, presence of meaning, search for meaning, emotional well-being, and the total MHC score.

Table 1. Descriptive statistics and correlations for the study measures

Variable	M	SD	α	1	2	3	4	5	6	7	8
1. Ego Development	4.92	0.55	.89								
2. Hedonic motives	5.02	0.95	.74	.01							
3. Eudaimonic motives	5.53	0.87	.69	.21**	.29**						
4. Presence of meaning	4.39	1.54	.90	.13*	.07	.52**					
5. Search for meaning	4.32	1.41	.86	.11*	-.07	.08	-.12*				
6. Emotional well-being	3.75	1.26	.82	.11*	.16**	.43**	.53**	-.05			
7. Social well-being	2.92	1.03	.70	.10	.09	.34**	.48**	.02	.60**		
8. Psychological well-being	3.63	1.07	.78	.09	.11*	.47**	.59**	-.05	.73**	.65**	
9. MHC Total Score	3.40	0.97	.89	.11*	.13*	.47**	.61**	-.03	.85**	.86**	.92**

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

We used SEM in Mplus 8.4 (WLSMV estimator for categorical items) to improve the power of the indirect effect tests by controlling the measurement error. We started by establishing a measurement model for each questionnaire and proceeded by testing structural models where ED predicted a latent well-being factor defined by the three MHC scales to investigate the mediating effects of HEMA and MLQ scales. In each case, we tested a partial mediation model with correlated mediators and applied the Wald test to find out whether constraining the direct path from ED to MHC to zero would adversely affect the model fit. Below we present standardized coefficients with 95% CI.

In the first model, hedonic and eudaimonic motives mediated the association of ego development with well-being. The model fit the data well ($\chi^2 = 749.10$, df = 457, p < .001; CFI = .940; RMSEA = .042 [.036; .047]; SRMR = .053). Hedonic motives were not significantly associated either with ED (.076 [-.025; .177], p = .139) or well-being (-.089 [-.223; .046], p = .196). Eudaimonic motives, in turn, were predicted by ED (.257 [.150; .363], p < .001) and predicted well-being (.647 [.496; .799], p < .001). The specific indirect effect of ED on well-being mediated by eudaimonic motives was significant (.166 [.083; .250]), and the Wald test supported the full mediation hypothesis ($\chi^2(1) = .42$, p = .52).

In the second model, the presence and search for meaning mediated the association of ego development with well-being. The model also showed a good fit to the data ($\chi^2 = 779.78$, df = 428, p < .001; CFI = .958; RMSEA = .048 [.042; .053]; SRMR = .052). ED significantly predicted both Presence of meaning (.147 [.040; .253], p = .007) and Search for meaning (.119 [.016; 222], p = .024); however, well-being was only predicted by Presence of meaning (.680 [.606; .755], p < .001), but not by the Search for meaning (.071 [-.016; .158], p = .111). The specific indirect effect of ED on well-being mediated by Presence of meaning was significant (.100 [.026; .174], p = .010) with the Wald test supporting full mediation ($\chi^2(1) = .09$, p = .77).

Finally, we tested whether eudaimonic motives and presence of meaning would independently contribute to explaining the shared variance of ED and MHC when combined in a single model (Fig. 1). The model fit the data quite well ($\chi^2 = 627.22$, df = 428, p < .001; CFI = .973; RMSEA = .036 [.030; .042]; SRMR = .048). Predictably, the Wald test supported full mediation ($\chi^2(1) = .10$, p = .76). Both specific indirect effects of presence of meaning (.076 [.017; .134], p = .011) and eudaimonic motives (.061 [.014; .109], p = .011) were significant and comparable in magnitude. The results were substantially the same when each of the three MHC scales was modeled individually as a latent dependent variable (full mediation with comparable sizes of both indirect effects in the .060-.080 range).
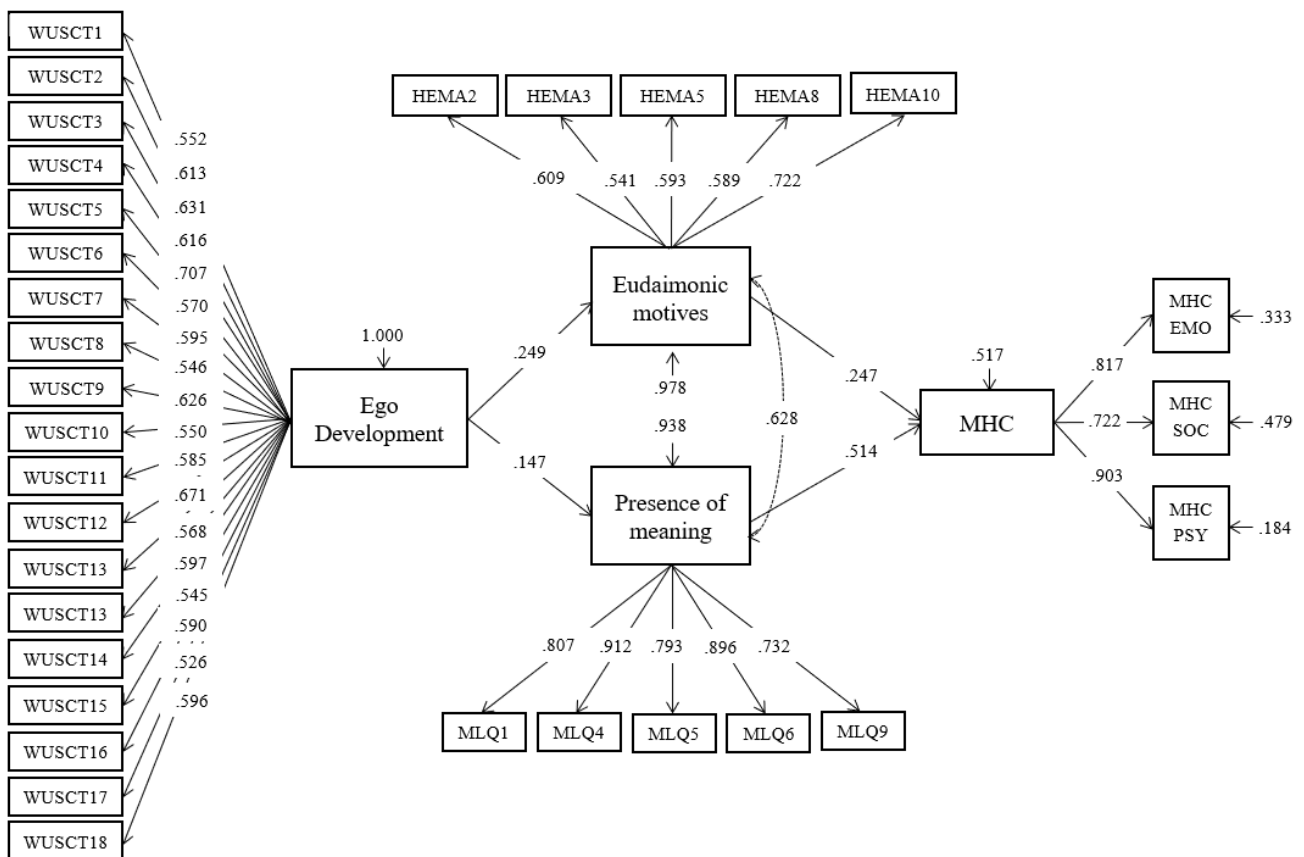
Figure 1. Parameters of the final model (3) (standardized coefficients are shown).

Discussion

Both eudaimonia theories and the ego development theory describe the phenomena of positive functioning characteristic of a mature personality. However, empirical links between the respective constructs have not yet been established. Our findings build on the earlier work by Bauer & McAdams (2010) showing that ED has weak positive associations with current well-being and extend it by confirming these associations for eudaimonic well-being. Unfortunately, modest sample size and the small number of individuals at the Integrated stage did not allow us to replicate the findings of Bauer, Schwab, & McAdams (2011) suggesting that higher levels of well-being might be peculiar to this stage.

Both our hypotheses concerning the presence of meaning and eudaimonic motives were supported, indicating that all the variance shared by ED and eudaimonic well-being is explained by trait-level indicators of eudaimonic functioning. The association of the ED level with eudaimonic motives confirms the thesis that ED and growth orientation accompany each other (Bauer, 2011). Our data suggest that the increase of eudaimonic motives might be related to transition from the

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self-aware (E5) to the conscientious (E6) stage (see Appendix). However, the causal links between these processes are far from clear, as the only longitudinal study to date (Bauer & McAdams, 2010) has tested only one direction of this association, showing that intellectual growth motives predict later ED. Unfortunately, the present study is limited by its cross-sectional design, but we hope that our findings may encourage future integration between these research areas.

The results suggest that eudaimonic functioning may explain why higher well-being is achieved in the process of personality development. Existing work on ED suggests that self-report questionnaires may fail to capture the growing complexity associated with this process. The findings revealing the independent mediating effects of meaning and eudaimonic motives shed light on the mysterious process of attaining psychosocial maturity.

Acknowledgments

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Appendix

Table 1. Descriptive statistics for different ED stages

	E2-E3 (N = 28)	E4 (N = 57)	E5 (N = 138)	E6 (N = 98)	E7-E9 (N = 41)
Hedonic motives	5.25 (0.95)	4.95 (1.11)	4.92 (0.93)	5.14 (0.93)	5.08 (0.83)
Eudaimonic motives	5.30 (1.03)	5.38 (0.92)	5.40 (0.90)	5.73 (0.74)	5.85 (0.68)
Presence of meaning	4.22 (1.40)	4.06 (1.80)	4.35 (1.49)	4.47 (1.51)	4.82 (1.45)
Search for meaning	4.41 (1.29)	3.88 (1.52)	4.38 (1.33)	4.42 (1.50)	4.40 (1.34)
Emotional well-being	3.50 (1.37)	3.56 (1.37)	3.71 (1.29)	3.87 (1.19)	3.98 (1.09)
Social well-being	2.79 (1.03)	2.82 (1.05)	2.87 (0.99)	2.92 (1.01)	3.27 (1.13)
Psychological well-being	3.51 (1.17)	3.49 (1.06)	3.61 (1.12)	3.66 (0.98)	3.87 (1.04)
MHC total score	3.25 (1.07)	3.27 (1.00)	3.37 (0.99)	3.44 (0.87)	3.68 (0.96)

Table 2. Fit of the measurement models

Model	χ^2 (df)	CFI	RMSEA [90 % CI]	SRMR
WUSCT (CFA)	242.62 (135)	.970	.047 [.037; .056]	.038
HEMA (CFA)	357.82 (43)	.819	.143 [.129; .156]	.068
HEMA (ESEM)	141.87 (34)	.938	.094 [.078; .110]	.038
MLQ (CFA)	355.95 (34)	.950	.162 [.147; .177]	.064
MLQ (ESEM)	299.11 (26)	.958	.171 [.153; .188]	.028
MHC (3-factor CFA)	287.72 (74)	.949	.089 [.079; .100]	.044
MHC (3-factor ESEM)	162.79 (52)	.974	.077 [.064; .090]	.030

Footnote

Evgeny N. Osin was responsible for study conceptualization, data preparation, data analysis and report writing.

Elena Yu. Voevodina was responsible for study conceptualization, data collection, data preparation data analysis and report writing.

Vasily Yu. Kostenko moderated the coding of WUSCT and gave his expertise in the field of Loevinger's theory.

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