

# Associations between Hexaco model of personality structure, motivational factors and self-reported creativity among architecture students



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## Introduction

Creativity is a key element in various design fields such as architecture (Casakin & Kreitler, 2011).

There are researches which investigate individual differences, personal susceptibility, that could determine creativity (ex. Choi, 2004; Furnham & Niderstrom, 2010). Studies which analyze the relation between **creativity and personality** show different results. Some of them have demonstrated strong associations, predictive value for creativity. There are only a few researches in the literature regarding Hexaco model of personality and creativity.

Regarding the relation between **motivation and creativity**, there are some studies that have shown a close relationship between intrinsic motivation and creativity (ex.: Eisenberger & Aselage, 2009), while others found no or weak association (ex.: Dewett, 2007; Perry-Smith, 2006).

Another factor is the **creative self-efficacy (CSE)** which could influence creative performance (ex.: Choi, 2004). Jaussi, Randel & Dionne (2007) have made distinction between creative personal identity (creative role-identity) and creative self-efficacy. These two constructs are not equal, but they are strongly related. Creative role-identity describes how important it is to be creative (Karwowski, Lebuda & Wiśniewska, in press). Creative behavior represents the possibility of being creative in specific situations.

## Objective

Our **research goal** was to identify relations between self-measured creativity (creative self-efficacy, role-identity and behavior), Hexaco Personality factors and motivational orientations..

## Method

### Participants

- 182 (N=182) participants were assessed, architecture students of Technical University of Cluj-Napoca, with ages between 18 and 38 years (M= 20.97, SD= 3.15)

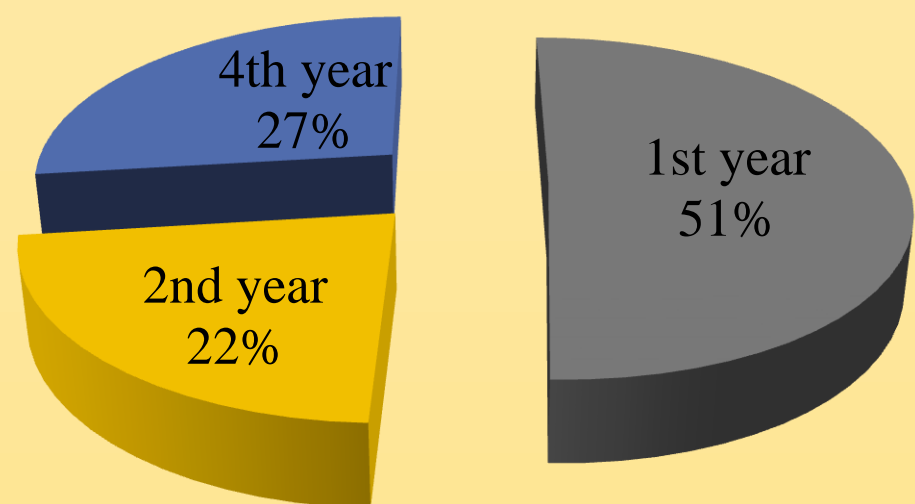


Fig. 1. Distribution of the sample by university year

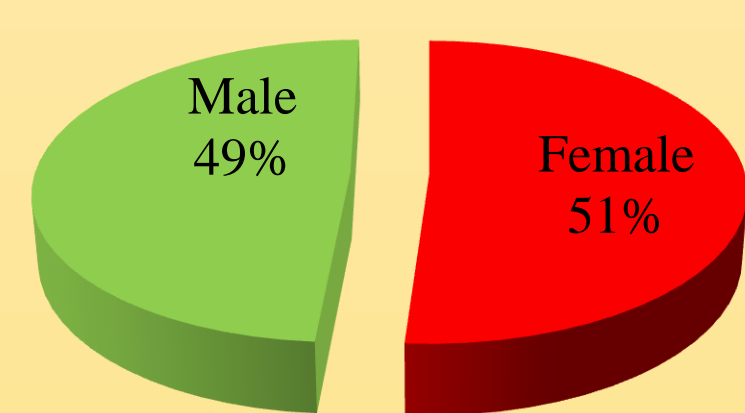


Fig. 2. Distribution of the sample by gender

### Intruments

- Self-reported Creativity Scale** (Karwowski, Lebuda and Wiśniewska, in press; Yu, 2013)
  - Creative Self-Efficacy (CSE)
  - Creative Role-Identity (CRI)
  - Creative Behavior (CB)
- Hexaco Personality Inventory** (Ashton, Lee, De Vries, Perugini, Gnisci, & Sergi, 2006)
  - Honesty-Humility (H),
  - Emotionality (E),
  - Extraversion (X),
  - Agreeableness (A),
  - Conscientiousness (C),
  - Openness to Experience (O)
- Work Preference Inventory** (Amabile, Hill, Hennessy and Tighe, 1994)
  - Extrinsic subscale
  - Intrinsic subscale

## Results

- IBM SPSS Statistics and IBM SPSS Amos (20.0)
- Descriptive statistics, Pearson correlation, regression analysis and t-tests were used for testing our goals. Significance level was set at  $p \leq .05$ .

### Reliability and factor structure of the creativity measures

- $\alpha = .91$
- we used CFA with AMOS (Fig.3)
- Model fit was good**, the chi-square test was significant ( $\chi^2 (149) = 295.9, p < .001$ ) and the remaining fit indices suggested also a good fit (CFI= .88, RMSEA= .074 (90% CI= .061 to .086))

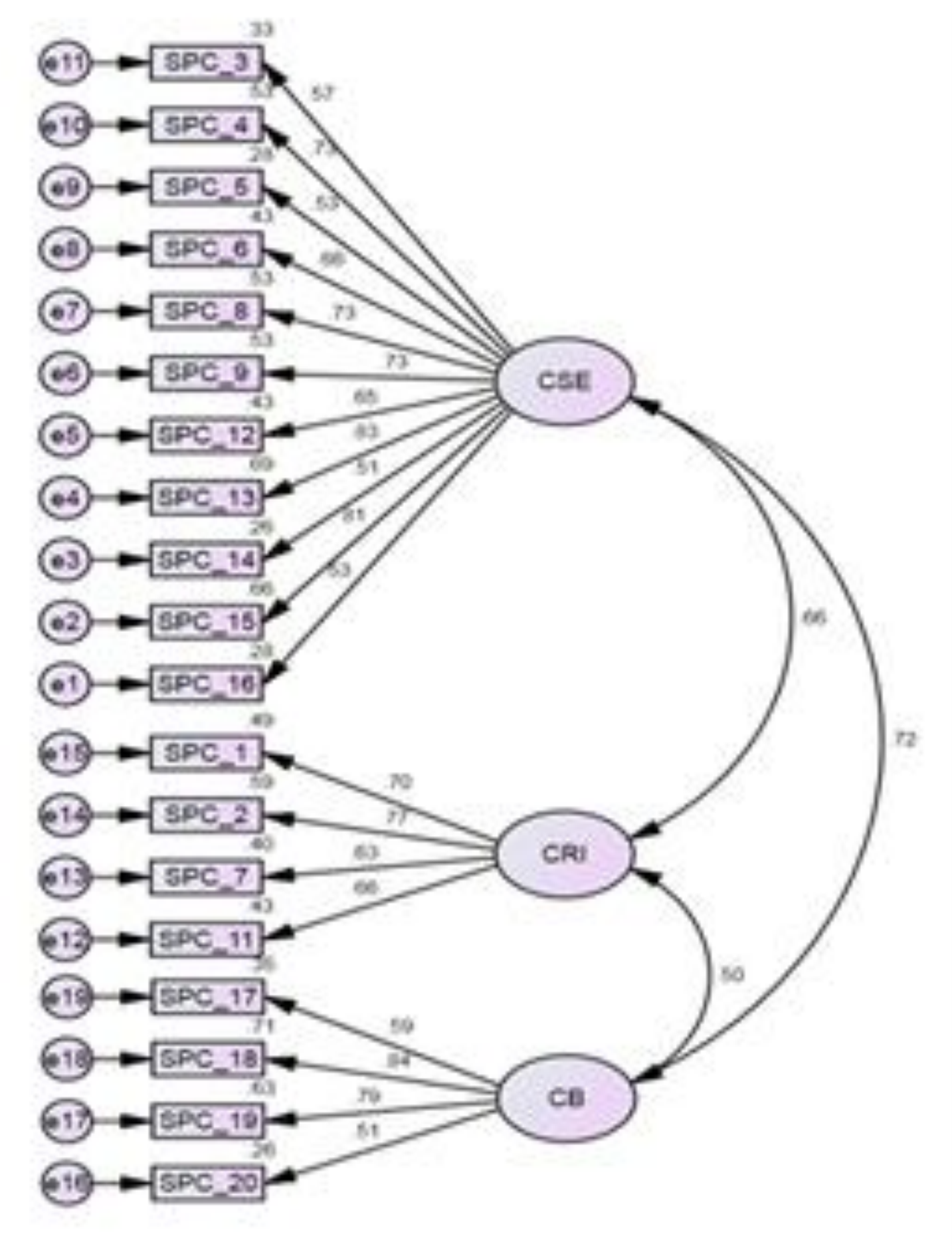


Fig. 3 CFA loadings for self-reported creativity

## Creative Self-Efficacy, Hexaco Personality factors and motivational factors

		N	M(SD)	t (df)	p	d
Emotionality	low level	60	49.51(8.96)	2.29(103)	.024	.45
	high level	45	45.28(9.80)			
Extraversion	low level	61	48.63(10.04)	2.71(103)	.008	.53
	high level	44	54.20(10.76)			
Conscientiousness	low level	61	54.32(8.10)	2.23(105)	.027	.43
	high level	46	58.00(8.77)			
Openness to experience	low level	61	61.47(6.66)	3.57(105)	.001	.69
	high level	46	66.45(7.72)			
Challenge	low level	60	20.20(2.48)	3.21(103)	.002	.63
	high level	45	21.82(2.64)			
Enjoyment	low level	60	26.81(2.33)	2.15(103)	.034	.41
	high level	45	28.13(3.90)			
Compensation	low level	58	12.73(2.11)	2.81(102)	.006	.57
	high level	46	14.04(2.43)			

Table 1  
Differences between **low** and **high** levels of CSE on Hexaco Personality factors and motivational factors

## Creative Role-Identity, Hexaco Personality factors and motivational factors

		N	M(SD)	t (df)	p	d
Extraversion	low level	77	50.29(10.41)	2.55(107)	.012	.55
	high level	32	55.62(8.60)			
Openness to experience	low level	78	61.00(6.25)	4.56(109)	.000	.91
	high level	33	67.27(7.41)			
Challenge	low level	77	20.63(2.59)	2.53(107)	.013	.54
	high level	32	21.96(2.25)			
Enjoyment	low level	77	26.70(3.27)	3.35(107)	.001	.75
	high level	32	28.84(2.34)			
Outward	low level	75	27.62(3.70)	2.02(106)	.045	.42
	high level	33	29.18(3.60)			

Table 2  
Differences between **low** and **high** level of CRI on Hexaco Personality factors and motivational factors

## Conclusion

- differences on some personality factors and on intrinsic motivational orientations vary **depending on the measured facets of creativity**
- participants who have beliefs that they **are able to try out new ideas are more patient, flexible and tend to avoid being overly judgmental**
- students with **better creative self-efficacy are more compensation oriented** than people who have weaker creative self-efficiency.
- persons who value **more being creative are more oriented toward recognition** than participants with lower level of creative personal identity.

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