

Development of the Polish version of Zimbardo Time Perspective Inventory

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Introduction

Zimbardo Time Perspective Inventory (Zimbardo & Boyd, 1999) measures five time perspectives:

1. Past negative (PN)
2. Future (F)
3. Present hedonistic (PH)
4. Present fatalistic (PF)
5. Past positive (PP)

The original version consists of 56 items: 10 for PN, 13 for F, 15 for PH, 9 for PF and 9 for PP.

Aim of the study

Our aim was to adapt the Polish version of ZTPI using exploratory (EFA) and confirmatory factor analysis (CFA) on separate samples to achieve a good model fit. ZTPI was translated into Polish by three independent translators, final version was translated back into English and compared with the original by a specialist with Phd in English Linguistics.

Procedure

Exploratory Factor Analysis (Principal Axis Factoring, Varimax rotation)

Sample consisted of 400 participants (232 F, 163 M, 5 participants did not indicate their gender), aged 17 - 78 (M = 31, SD = 13). KMO = .802.

Results:

- five-factor structure was confirmed
- five factors explained 37% of variance
- several items showed unsatisfactory factor loadings or large cross-loadings

	Factor				
	1	2	3	4	5
PN7	.745				
PN9	.708				
PN3	.705				
PP6	.651				
PN5	.647		.216		
PN4	.629				
PN6	.581				
PN8	.574				
PN1	.554				
PN10	.534				
PF5	.477			.307	
PP3	-.451				.263
PF7	.394				.203
PF4	.375		.245		
PF3	.347				
PF1	.291			.221	
F9		.688			
F4		.678			
F1		.493			
F11		.490			
F10		.474			
F12		.465			
F3		.441	.247	-.232	
F6		.434			.234
F8		.398			
F5		.359			.249
PH11			.604	.202	
PH7			.579		.261
PH9			.527		
PH4			.496		
PH14			.479	.218	
PH1			.423		.333
PH15			.397		.228
PH3			.296		
PH8			.286		
PF9			.252		
PH6				.566	
PF2				.543	
PH2			.278	.501	
F7		-.391	.246	.410	
F2		-.257		.409	
PF6				.376	
PH10			.300	.370	
PH13	.213		.268	.317	.228
PH12	.257	-.212	.282	.308	.240
PF8		-.270	.213	.280	
F13		-.241		.276	
PN2				.250	
PP9					.552
PP5			.217		.507
PP4					.474
PP1					.459
PP2				.251	.441
PH5			.219		.315
PP7	.207			.221	.309
PP8	.204			.201	-.305

Solution:

We decided to select the best items with procedure suggested by Donnellan, Oswald, Baird & Lucas (2006): for each ZTPI item we calculated the "difference between its loading on its primary factor and the average of the absolute 'off' factor loadings" (p. 194). Six items with the highest "discrimination score" were selected for each scale.

Confirmatory Factor Analysis

Second sample consisted of 516 participants (299 F, 209 M) aged 15-72 (M = 32, SD = 12).

CFA was carried out in AMOS 18. The 30-item structure achieved unsatisfactory model fit, thus half of the items were dropped (according to Modification Indices).

Final 15-item version

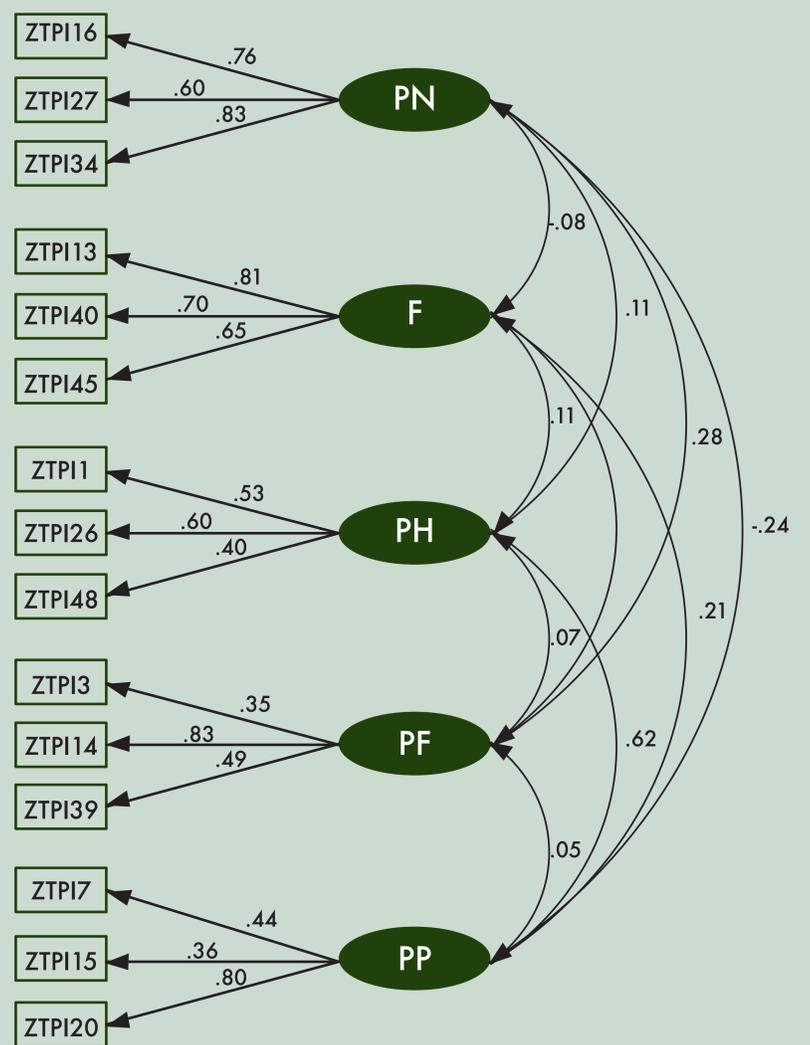
PN: Painful past experiences keep being replayed in my mind; I've made mistakes in the past that I wish I could undo; It's hard for me to forget unpleasant images of my youth.

F: Meeting tomorrow's deadlines and doing other necessary work comes before tonight's play; I complete projects on time by making steady progress; I am able to resist temptations when I know that there is work to be done.

PH: I believe that getting together with one's friends to party is one of life's important pleasures; It is important to put excitement in my life; I prefer friends who are spontaneous rather than predictable.

PF: Fate determines much in my life; Since whatever will be will be, it doesn't really matter what I do; It doesn't make sense to worry about the future, since there is nothing that I can do about it anyway.

PP: It gives me pleasure to think about my past; I enjoy stories about how things used to be in the "good old times"; Happy memories of good times spring readily to my mind



Model fit indices:

CFI = .93; RMSEA = .04; SRMR = .06

Discussion

CFA confirmed good model fit of the final 15-item version- the model fit indices were close to the cut-off points suggested by Hu & Bentler (1999).

However, internal consistency was low in three scales: PH ($\alpha = .45$), PP ($\alpha = .54$) and PF ($\alpha = .60$); only F and PN had acceptable Cronbach's alpha coefficient (.80 and .78, respectively).

Fourth factor in EFA consisted of mixed PH, PF and F items, representing impulsive, 'carpe diem' attitude- idea for a different time perspective?

Bibliography

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