

Measuring the construct of Optimism-Pessimism with single item indicators

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Survey Design and Methodology

The construct of Optimism-Pessimism

- Generalized expectancies concerning future events
Scheier & Carver (1985), Carver, Scheier, & Segerstrom (2010)
 - anticipating good vs. anticipating bad
 - broad and generalized versions of confidence and doubt

- Positive outlook on life *Dember, Martin, Hummer, Howe, & Melton (1989)*
 - biases for the positive or negative features of life
 - also includes present perceptions and appraisals

Optimism-Pessimism and well-being

- Optimists report less distress before surgery or treatments and more life satisfaction afterwards **Allison, Guichard, & Gilain (2000), Fitzgerald, Tennen, Alleck, & Pransky (1993)**
- Optimists report higher relationship satisfaction mediated by the perceived higher relative supportiveness of their partners **Srivastava, McGonigal, Richards, Butler, & Gross, 2006**

Optimism-Pessimism and health

- Mean effect size for the relationship between optimism and physical health outcomes in a meta-analysis was .17 ($p < .001$)
Rasmussen, Scheier, & Greenhouse (2009)

- Women's Health Initiative (WHI): $N = 95,000$ women across the US; 8 year period **Tindale, Chang, Kuller, Manson, Robinson, & Rosal (2009)**
 - Optimists were less likely to develop coronary heart disease (CHD)
 - Optimists were less likely to die from CHD-related causes

Optimism-Pessimism and socioeconomic status

- Dispositional optimism predicts income of law schools students 10 years later **Segerstrom (2007)**
- Dispositional optimism before starting school is associated with a significantly higher probability of returning the second year **Solberg Nes, Evans, & Segerstrom (2009)**

Latent structure of Optimism-Pessimism Polar opposites or two dimensions?

- Structure is one-dimensional
 - a person can either be optimistic or pessimistic – not both
 - dominant view for a long time

Scheier & Carver (1985), Segerstrom, Evans, & Eisenlohr-Moul (2011)

- Structure is two-dimensional
 - partially independent constructs

Mroczek, Spiro, Aldwin, Ozer, & Bossé (1993), Herzberg, Gläsmer, & Hoyer (2006), Chang, D'Zurilla, & Maydeu-Olivares, 1994

Measurement

- Life Orientation Test (LOT) **Scheier & Carver (1985)**
 - 12 Items
 - one-dimensional
- Life Orientation Test-Revised (LOT-R) **Scheier, Carver, & Bridges (1994)**
 - 10 Items
 - one-dimensional
- Optimism and Pessimism Scale (OPS) **Dember, Martin, Hummer, Howe, & Melton (1989)**
 - 56 Items
 - two-dimensional

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too long

Goals

- Construction of
 - an ultra-short measure for survey research
 - with sufficient psychometric quality
- Achieve sufficient psychometric quality
 - by replicating relationships reported in the Optimism literature
 - Internal structure
 - convergent and discriminant validity
 - by estimating reliability of the measure

Construction of the Optimism-Pessimism-2 Scale (OP2)

(The next question deals with optimism.) Optimists are people who look to the future with confidence and who mostly expect good things to happen. How would you describe yourself?

How optimistic are you in general?

not at all optimistic						very optimistic
1	2	3	4	5	6	7

Construction of the Optimism-Pessimism-2 Scale (OP2)

(The next question is about pessimism.) Pessimists are people who are full of doubt when they look to the future and who mostly expect bad things to happen. How would you describe yourself?

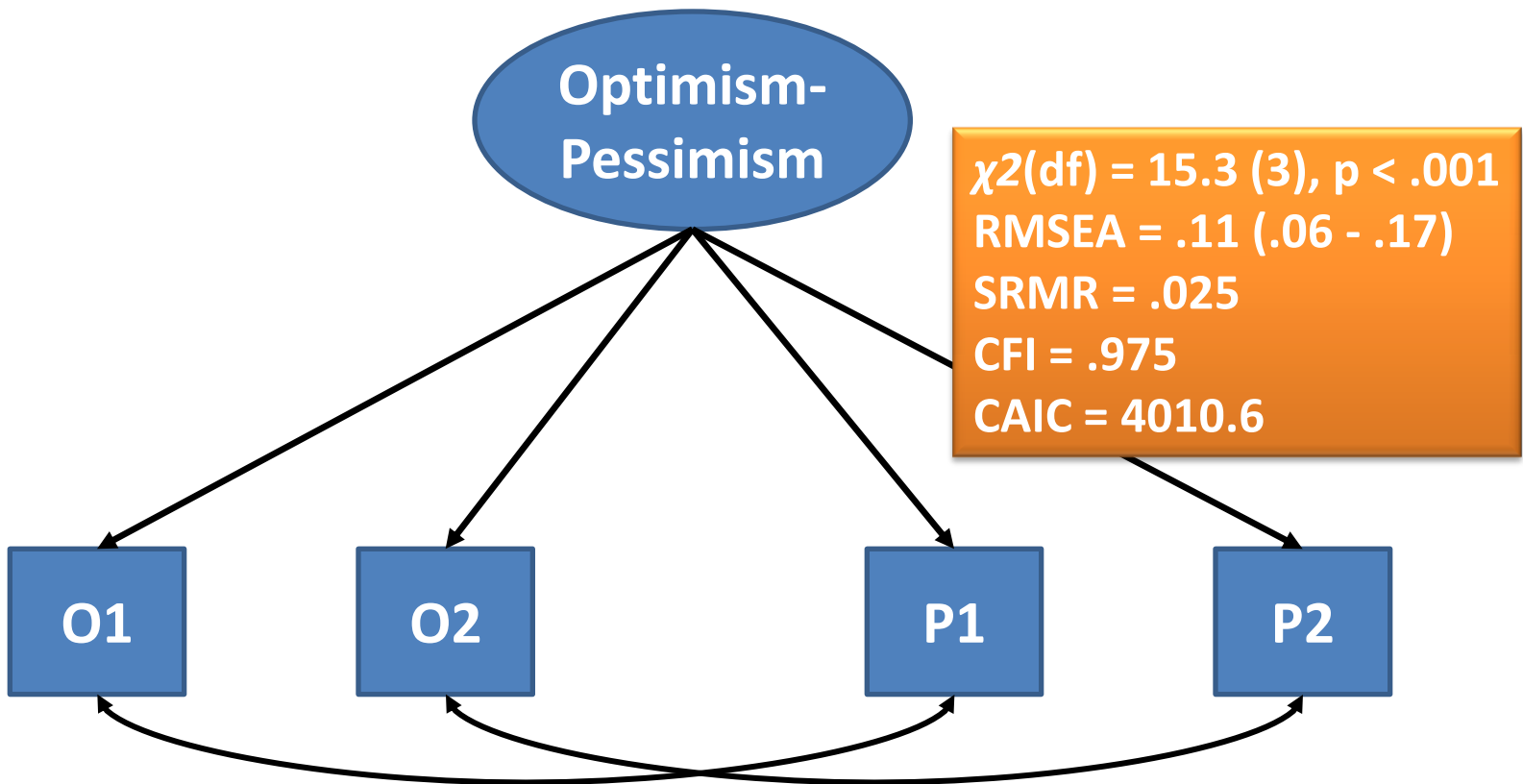
How pessimistic are you in general?

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		Sample 1	Sample 2*	Sample 3*
sampling	<i>N</i>	539	741	1206
	procedure	quota	quota	random route
	mode	CAPI, self-assessment	online	CAPI
sex	female	52.5%	51.8%	55.4%
age	<i>M (SD)</i>	47.2 (15.2)	48.3 (13.0)	52.6 (18.5)
education	≤ 9 yrs	44.7%	40.1%	38.8%
	10 yrs	30.2%	29.1%	34.2%
	≥ 11 yrs	23.7%	30.8%	25.5%

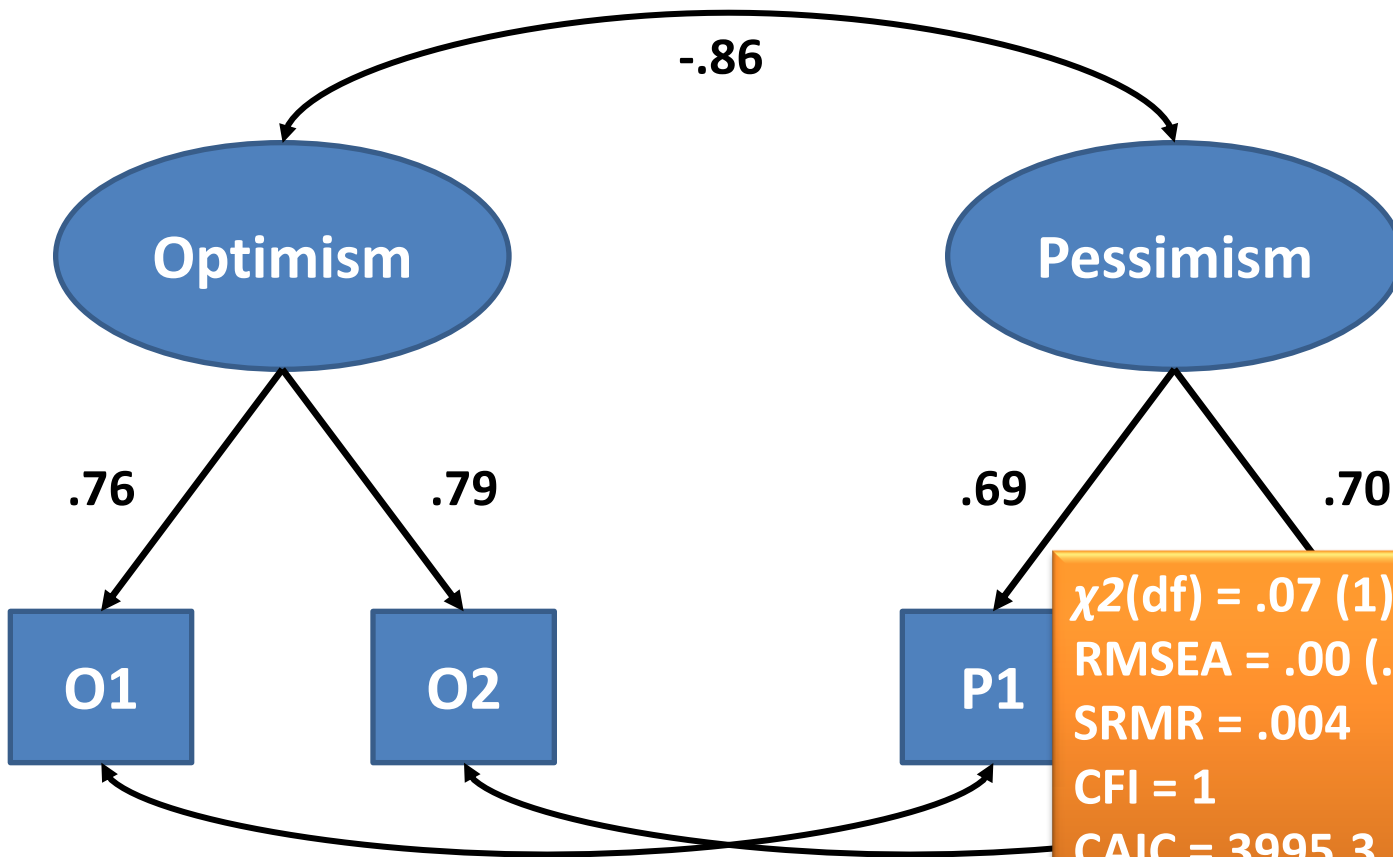
* preliminary analyses

One dimension with polar opposites?



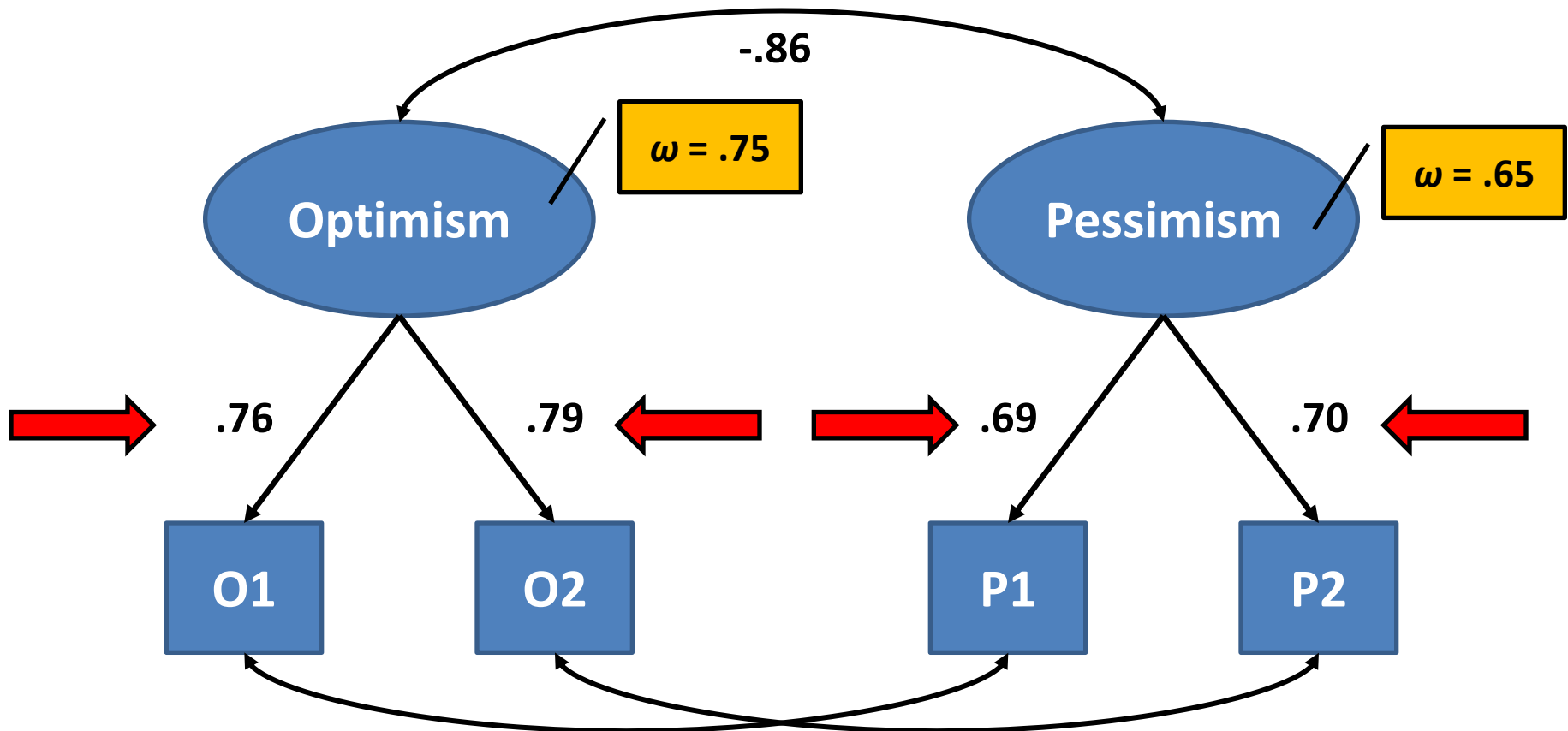
Sample 1, Wave 1 and 2.

Two oblique dimensions?



Sample 1, wave 1 and 2.

Reliability (McDonald's ω) of the OP2



Sample 1, Wave 1 and 2.

OP2 and the LOT-R

	scale level correlations		latent correlations	
	LOT-R Optimism	LOT-R Pessimism	LOT-R Optimism	LOT-R Pessimism
OP2-Optimism	.63	-.43	.79	-.51
OP2-Pessimism	-.51	.50	-.71	.63

Sample 1. All $ps < .01$.

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OP2 and well-being

	OP2-Optimism	OP2-Pessimism
Satisfaction		
<i>Life</i>	.49	-.43
<i>Work</i>	.26	-.26
<i>Partner</i>	.25	-.21
Self-efficacy	.42	-.32
Self-esteem	.49	-.48

Samples 1-3. All $ps < .01$.

OP2 and health

	Health status		
	physical	mental	Health satisfaction
OP2-Optimism	-.27	-.32	.33
OP2-Pessimism	.30	.38	-.31

Sample 3. All $ps < .01$.

OP2 and sociodemographic variables

	OP2-Optimism				OP2-Pessimism			
	S1	S2	S3	M_r	S1	S2	S3	M_r
Sex	-.02	.05	.06*	.04	-.02	-.03	.00	.00
Age	-.05	.15**	-.09**	-.00	.00	-.18**	.06*	-.03
Income	.18**		.02	.08	-.21*		.00	-.09
Years of schooling	.15**	.02	.12**	.10	-.16**	-.05	-.10**	-.10
No. of books		.11*	.14*	.13		-.11*	-.15**	-.08

Samples 1-3 (S1 – S3). * = $p < .05$, ** = $p < .01$.

Discussion

- The OP2 is a very efficient, reliable, and valid measure of the Optimism-Pessimism construct (2 single item indicators)
- Limitation: no modeling of measurement error in cross-sectional designs
- Application of the OP2
 - surveys with severe monetary or time constraints
 - mixed mode surveys (CAPI, self-assessment)
 - preferably in panel studies

**Thank you for
your
attention!**

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Appendix: The Optimism-Pessimism-2 Scale (OP2)

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***** **Please cite this scale as** *****

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