

Interests and Self Efficacy: Distinct Constructs?

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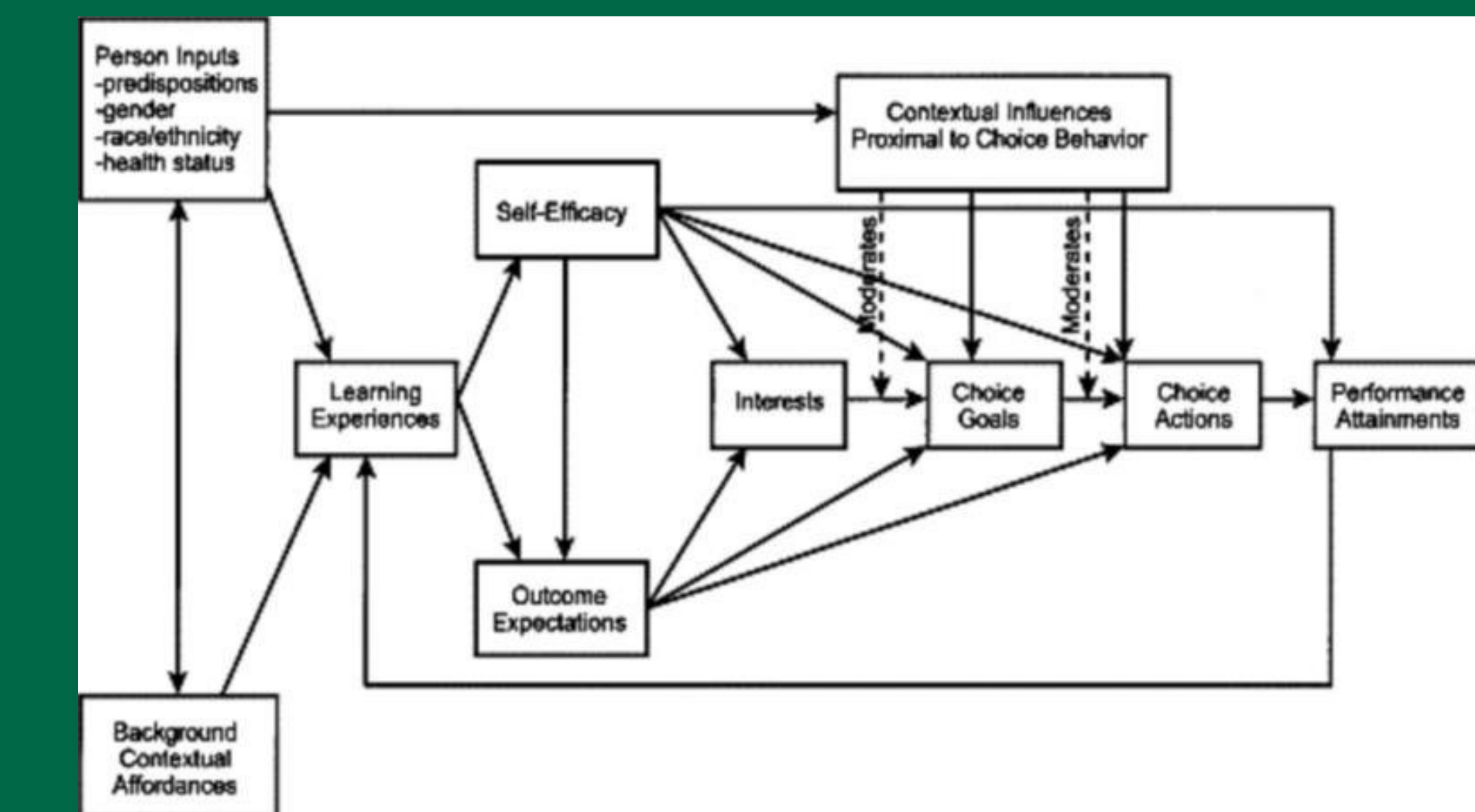
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• Interactions between interests (I) and self-efficacy (SE), modeled by social cognitive career theory (SSCT), are used to predict domain relevant career paths.

• SE is a precursor to I development, implying the two constructs are ‘related but distinct’.



• Previous meta-analytic results have found strong mean correlations between the two. Existing heterogeneity is attributed to tangible differences between the constructs.

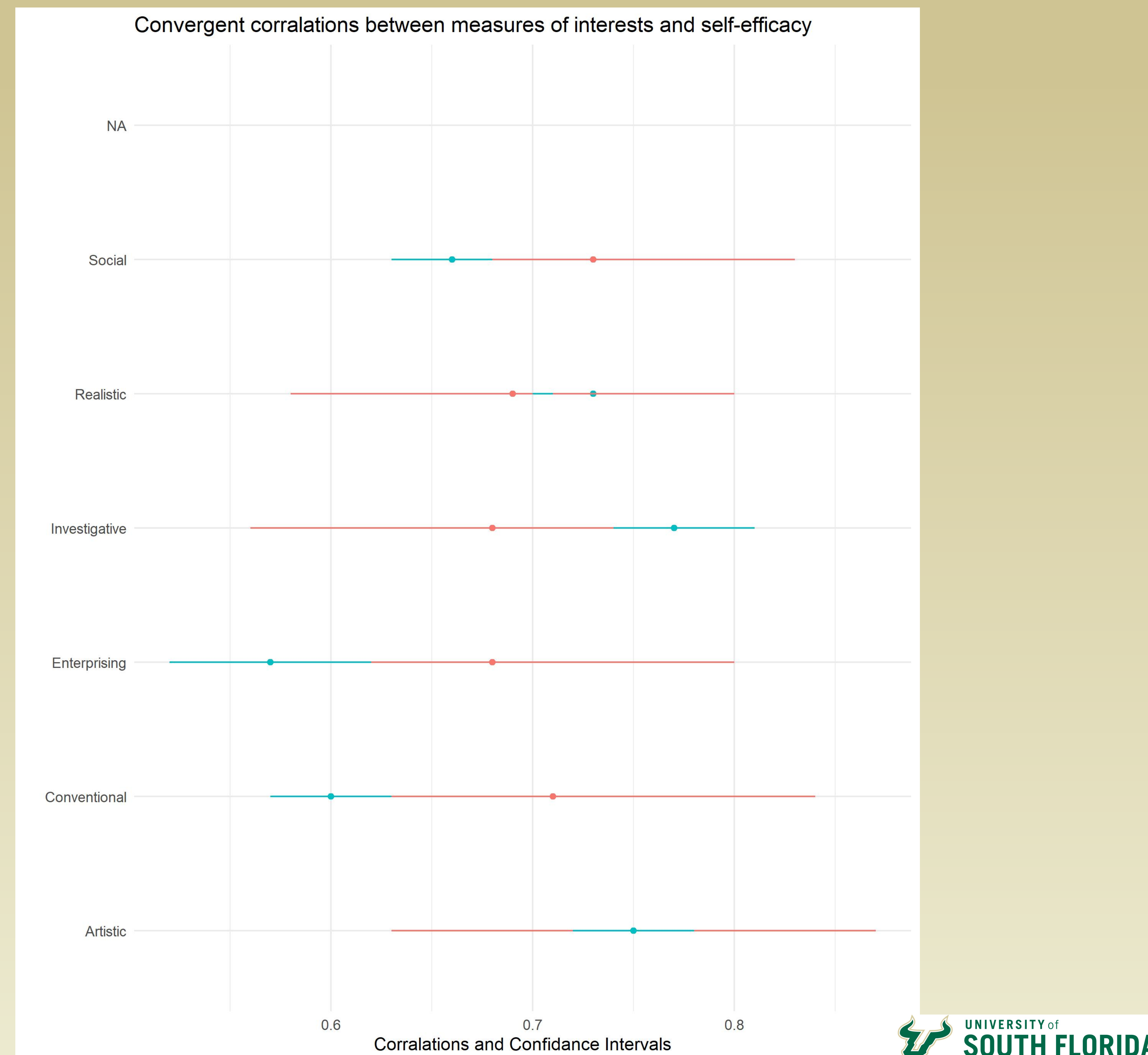
• Specifically, SE is capturing specific orientations toward work activities that interest measures alone can not capture.

Objectives

• Illuminate potential measurement artefacts between I and SE measures by:

1. Determining convergence between I and SE measures.
2. Analyzing the structure of cross method correlations.
3. Using multi-trait multi-method (MMTM) factor analysis for each construct

Interests and self-efficacy largely capture the same underlying attitudes toward work tasks.



Methods

- An exhaustive literature search resulted in 292 studies with unique samples made up of 834,087 people.
- Correlations were calculated using the R package psychmeta.
- The MMTM analysis: a correlated-traits, correlated-uniqueness (CTCU) model was fit to a synthetic meta-analytic correlation matrix constructed to reflect meta-analytic mean observed (not corrected for unreliability) correlations among:
 1. Typical RIASEC interest scales
 2. Typical RIASEC self-efficacy scales
 3. RIASEC interest scales drawn from a different inventories
- To account for method variance the uniqueness's for the six scales from the same method to co-vary.
- Confidence intervals, were found through the harmonic mean sample size across included correlations.

Results

Construct	Parameter	Loading	95% CI
R	Interest	.894	[.869, .919]
	Self-efficacy	.714	[.685, .742]
	Interest (diff. inv.)	.742	[.717, .768]
I	Interest	.948	[.853, .975]
	Self-efficacy	.745	[.718, .773]
	Interest (diff. inv.)	.644	[.616, .672]
A	Interest	.838	[.812, .864]
	Self-efficacy	.732	[.704, .759]
	Interest (diff. inv.)	.787	[.761, .814]
S	Interest	.965	[.869, .994]
	Self-efficacy	.708	[.681, .736]
	Interest (diff. inv.)	.681	[.653, .710]
E	Interest	.751	[.721, .781]
	Self-efficacy	.667	[.639, .697]
	Interest (diff. inv.)	.734	[.707, .762]
C	Interest	.809	[.781, .836]
	Self-efficacy	.715	[.687, .744]
	Interest (diff. inv.)	.730	[.706, .754]
Mean (SD)		.868 (.083)	
	Self-efficacy	.714 (.027)	
	Interest (diff. inv.)	.720 (.050)	

Figure 1: Latent variable factor loadings for correlated trait–correlated uniqueness CFA model

• The model showed moderate fit: $\chi^2(75)$, $N_{\text{harmonic}} = 3$ 903.936 $= 2566.848$, comparative fit index = .943, root mean square error of approximation = .092 [.089, .096], mean absolute residual correlation = .042.

• Only sources of misfit were modest overestimates of correlations among select self-efficacy scales and between select self-efficacy scales and different-inventory interest scales.

References