

Developing Measures



Relational Concepts

CAPTURING POSITIVE RELATIONSHIPS AT WORK: A MEASUREMENT WORKSHOP
AND RESEARCH INCUBATOR

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Why do we need to measure relationships at work?

Assumption:

Relationships influence individual, team and organizational-level outcomes in systematic ways.



Why do we need to measure relationships at work?

We know that *dimensions of relationships* (e.g., trust, emotional bonds) influence:

- Prosocial and citizenship behaviors
- Willingness to act with Interpersonal Sensitivity
- Counterproductive work behaviors
- Team Conflict
- Learning from failure
- Performance



Warning!

High Investment- High Return

- “New” measure bias
- Tap your network
- Make it a side gig





Reasons to Develop a Measure

Good Reasons

1. There is ***no reliable measure*** of your construct of interest
2. There is ***no existing measure*** of your construct of interest
 - Unique dimension of an existing construct
 - multi-dimensional measure of an existing construct
 - new conceptualizations of the construct

Bad Reasons

1. My research site has some items on their employee survey that look good enough.
2. No one told me I needed a validated measure.
3. I couldn't find one and didn't think to ask anyone else.

My Measures [\(https://works.bepress.com/michele_williams/\)](https://works.bepress.com/michele_williams/)

Current

1. **Willingness to Engage with Interpersonal Sensitivity**
2. **Perspective Taking Measure**
3. **Affective Perspective Taking**
4. **Humor Self-efficacy**
5. **Perception of Being Trusted**
6. **Reward Power**
7. **Emotional Closeness**

Under development

- **Multi-dimensional *Relational Measure of Trust Propensity***
- **Being Known**

My Measures [\(https://works.bepress.com/michele_williams/\)](https://works.bepress.com/michele_williams/)

Current

1. **Willingness to Engage with Interpersonal Sensitivity** [\(Williams & Polman, 2015\)](#)
2. **Perspective Taking Measure** [\(Multi-dimensional, Williams, 2012\)](#)
3. **Affective Perspective Taking** [\(Williams, 2011, 2016b, Williams & Polman, 2015 and Ramarajan, Rothbard & Wilks, 2016\)](#)
4. **Humor Self-efficacy** [\(Williams & Emich, 2014\)](#)
5. **Perception of Being Trusted** [\(Two Dimensional, Williams, 2016a\)](#)
6. **Reward Power in Professional Service-Client Relationships** [\(Williams & Polman, 2015\)](#)
7. **Emotional Closeness** [\(Williams & Polman, 2015\)](#)

Under development

- **Multi-dimensional *Relational Measure of Trust Propensity*** [\(Kong & Williams, 2016, IACM\)](#)
- **Being Known** [\(workshop feedback in 2016\)](#)



Developing Measures: Getting Started

Step 1: Define your construct

Step 2: Search broadly.

Step 3:

Uncover

Adapt

Build upon

Innovate

Step 3: Developing Measures



Uncover	Adapt	Supplement	Innovate
Humor Self-Efficacy (Williams & Emich, 2014)	Perception of Being trusted (Williams, 2016a)	Emotional Closeness (Williams & Polman, 2015)	Appraisal-related Perspective Taking (Williams, 2012, 2016b)
			Willingness to act with Interpersonal Sensitivity (Williams & Polman, 2015)



Example: Willingness to Act with Interpersonal Sensitivity

Items ($\alpha = .80$, Williams and Polman, 2015, Organization Science)

1. I try to interact with this person in ways that allow him/her to feel self-confident.
2. I make an effort to approach all situations in ways that will allow this individual feel at ease.
3. I attempt to behave in ways that allow this individual to feel good about him/herself.
4. I purposely use what I know about this person to make suggestions in a non-threatening way.
5. I intentionally choose behaviors that communicate concern for this person's well-being.
6. I consciously try to act in ways that reduce the fears this person may have.



Innovating a Measure: How to Continue

You have defined your construct (1) and searched the literature (2):

3. Generate items
4. Have Experts rate your item against the definition of your construct
5. Sample 1: Determine the reliability and discriminant validity of your measure
6. Refine your measure (delete or add items)
7. Sample 2: Determine the reliability and discriminant validity of your measure
8. Sample 3: test your structural model
9. Sample 4 (fix what you missed): Determine the reliability and discriminant validity of your measure (base on reviewer recommendations)



Use Multiple Strategies

Uncover	Adapt	Build upon	Create
Humor Self-Efficacy <small>(Williams & Emich, 2014)</small>	Perception of Being trusted <small>(Williams, 2016a)</small>	Emotional Closeness <small>(Williams & Polman, 2015)</small>	Appraisal-related Perspective Taking <small>(Williams, 2012, 2016b)</small>
	Affective Perspective Taking <small>(Williams, 2016)</small>		Willingness to act with Interpersonal Sensitivity <small>((Williams & Polman, 2015)</small>
	Cognitive Perspective taking <small>(Williams, 2012)</small>		Reward Power for Consultants <small>(Williams & Polman, 2015)</small>
	Relational Measure of Trust Propensity** <small>(Kong & Williams, 2016, IACM)</small>		
	Being Known**		



The Review Process & Questions

Should you publish a measure validation paper versus embed the validation study in your conceptual paper?



Good Luck!

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Resources: Scale Development

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

DeVellis, R. F. (2016). *Scale development: Theory and applications* (Vol. 26). Sage publications.

Dillman, D. A. (2011). *Mail and Internet surveys: The tailored design method--2007 Update with new Internet, visual, and mixed-mode guide*. John Wiley & Sons.

Diamantopoulos, A., & Winklhofer, H. M. (2001). Index construction with formative indicators: An alternative to scale development. *Journal of marketing research*, 38(2), 269-277.

Ghiselli E, Campbell J, Zedeck S (1981) *Measurement Theory for the Behavioral Sciences* (San Francisco, W.H. Freeman).

Hinkin, T. R. 1995. A review of scale development practices in the study of organizations. ***Journal of Management***, 21(5): 967–988.

Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational research methods*, 1(1), 104-121.



Resources: Validity

MacKenzie, S. B., Podsakoff, P. M., & Jarvis, C. B. (2005). The problem of measurement model misspecification in behavioral and organizational research and some recommended solutions. *Journal of Applied Psychology, 90*(4), 710.

McEvily, B., & Tortoriello, M. (2011). Measuring trust in organisational research: Review and recommendations. *Journal of Trust Research, 1*(1), 23-63.

Vandenberg, R. J., & Lance, C. E. (2000). A review and synthesis of the measurement invariance literature: Suggestions, practices, and recommendations for organizational research. *Organizational research methods, 3*(1), 4-70.

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Resources: Measure Development Papers



1. Bauer, T. N., Truxillo, D. M., Sanchez, R. J., Craig, J. M., Ferrara, P., & Campion, M. A. (2001). Applicant reactions to selection: Development of the selection procedural justice scale (SPJS). *Personnel psychology, 54*(2), 387-419.
2. Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a new general self-efficacy scale. *Organizational research methods, 4*(1), 62-83.

3. Bolino, M. C., & Turnley, W. H. (1999). Measuring impression management in organizations: A scale development based on the Jones and Pittman taxonomy. *Organizational Research Methods, 2*(2), 187-206.
4. Colquitt, J. A. (2001). On the dimensionality of organizational justice: a construct validation of a measure. *Journal of applied psychology, 86*(3), 386.
5. Holt, D. T., Armenakis, A. A., Feild, H. S., & Harris, S. G. (2007). Readiness for organizational change the systematic development of a scale. *The Journal of applied behavioral science, 43*(2), 232-255.
6. Liden, R. C., & Maslyn, J. M. (1998). Multidimensionality of leader-member exchange: An empirical assessment through scale development. *Journal of management, 24*(1), 43-72.
7. Mayer, R. C., & Davis, J. H. (1999). The effect of the performance appraisal system on trust for management: A field quasi-experiment. *Journal of applied psychology, 84*(1), 123.
8. Mayer, R. C., & Gavin, M. B. (2005). Trust in management and performance: Who minds the shop while the employees watch the boss?. *Academy of Management Journal, 48*(5), 874-888.
9. Williams, M., & Polman, E. (2015). Is it me or her? How gender composition evokes interpersonally sensitive behavior on collaborative cross-boundary projects. *Organization Science, 26*(2), 334-355.