

Professional Role Confidence: Expertise, Career-Fit and Relational Confidence

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By

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The Sties of Study









Some Highlights of the Design

 $6\frac{1}{2}$ year panel study, 2003-2008 yearly surveys to panel, n=700 in-depth interviews, years 1 and 4, n=64 bi-monthly diary submissions, years 1-4, n=40.

Overview of Comments

- Situate my work in context of Ong, et al.
- General findings: professional role confidence is key for *behavioral persistence*—staying in a STEM field and *intentional persistence*—plan to enter a STEM professional field.
- The experiences of minority women in engineering: some broader lessons.
- Policy implications.

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"Inside the Double-Bind"

-Among other factors, "academic selfconcept, self-efficacy, and overall confidence" are key ingredients for persistence.

- The challenges of collaboration: "a practice commonly associated with femininity [that] has been appropriated by the scientific culture with the effect of chiefly helping men and harming women" (Ong 2005: 599).



Toward a more nuanced understanding of self-confidence

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Expertise confidence: tasks and competencies required of a professional.

Career-fit confidence:

confidence that the professional role will *suit* the individual.







Findings: Professional Role Confidence

Expertise Confidence:

-Men enjoy significantly larger endowments of expertise confidence than women.

-Expertise confidence particularly significant in predicting behavioral persistence, intention to stay in major.

Career-Fit Confidence:

-Men enjoy significantly larger endowments of career-fit confidence than women.

-Career-fit confidence particularly significant in predicting intentional persistence, plans to be an engineer in five years.



The Experiences of Minority Undergraduates in STEM Fields

For Asian/Asian American and Hispanic students effects of PRC are significantly stronger, net of controls and compared to Whites;

Suggests that minority students in STEM have to work a bit harder to develop expertise and careerfit confidence.



What of Minority Women in STEM?

-Nine minority women across sites of study; -Based on interviews in years 1 and 4 (n=64); -Important note: ALL stayed in a STEM field.

-So, we may ask: What strategies did these minority women deploy to cultivate professional role confidence, particularly career-fit confidence?





STEM and Making a Social Difference





Social Class Matters





Stereotypes









Social Support Networks









Professional Role Confidence = Expertise + Career-Fit

What's next? Relational Confidence

-Dealing with peers, supervisors, mentors, colleagues;

- Comfort with organizational culture: humor, mannerisms, demeanors, dress.



Policy Implications:

Success is about more than expertise.

Required seminars that take seriously career-fit and relational confidence for all entering Ph.D. students;

Guided by literature and experts about forms and challenges of racial/ethnic and gender biases in STEM fields;

Explicit discussion of multiple career paths.



Thank you.

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