Finding Common Ground: Synthesizing Divergent Theoretical Views to Promote Women’s STEM Pursuits

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Many workplaces and academic units seek to increase the representation and participation of girls and women in STEM. Although the rapidly expanding evidence points to several possible intervention tactics, the choices may be overwhelming. We outline a common-ground model for translating scientific theory and evidence about gender gaps in STEM to specific tactics to promote the recruitment and inclusion of women in STEM. The scientific mindset focuses on divergence of one theory from another because novelty is prioritized in scientific value; however, when it comes to moving from theory to action, where theories converge may be more important than where they diverge. We suggest that social psychological theory and evidence clusters around two incongruities that promote gender gaps in STEM. The first incongruity is that women (and girls) are seen as incompatible with STEM, and the second incongruity is that the nature of STEM work is perceived or experienced as incompatible with important values. Each of these incongruities is examined through different theoretical frameworks.

We propose that these separate theoretical frameworks converge to suggest three common-ground strategies: 1) challenge stereotypes; 2) align STEM with values; and 3) cultivate possibilities for developing ability (growth mindset). When considering a course of action to increase women’s engagement in STEM, practitioners would benefit from considering whether the
proposed action reflects each of these three strategies. For example, highlighting the contributions of women in science will be more successful if these figures challenge stereotypes about the nature of STEM work, if they highlight how STEM can fulfill students’ valued goals, and if they communicate a history or potential for continually developing skills.