Home ► All Journals ► Multivariate Behavioral Research ► List of Issues ► Volume 44, Issue 6 Doubly-Latent Models of School Contextua ....

Multivariate Behavioral Research > Volume 44, 2009 - Issue 6

3.239 318

Views CrossRef citations to date Altmetric

**Original Articles** 

# Doubly-Latent Models of School Contextual Effects: Integrating Multilevel and Structural **Equation Approaches to Control** Measurement and Sampling Error

Herbert W. Marsh, Oliver Lüdtke, Alexander Robitzsch, Ulrich Trautwein, Tihomir Asparouhov, Bengt Muthén & ...show all

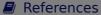
Pages 764-802 | Published online: 11 Dec 2009

**66** Cite this article ⚠ https://doi.org/10.1080/00273170903333665

> Sample our Mathematics & Statistics

Full Article

Figures & data



**66** Citations

**Metrics** 

Reprints & Permissions

Read this article

## Abstract

This article is a methodological-substantive synergy. Methodologically, we demonstrate latent-variable contextual models that integrate structural equation models (with

multiple unconfo group (L L1 char man (samp) demons slopes,

## About Cookies On This Site

We and our partners use cookies to enhance your website experience, learn how our site is used, offer personalised features, measure the effectiveness of our services, and tailor content and ads to your interests while you navigate on the web or interact with us across devices. You can choose to accept all of these cookies or only essential cookies. To learn more or manage your preferences, click "Settings". For further information about the data we collect from you, please see our Privacy Policy

ntrol for and Accept All L1) and regation of Essential Online latent or f persons Settings lude random effects.

Substantively we use these models to test the big-fish-little-pond effect (BFLPE), showing that individual student levels of academic self-concept (L1-ASC) are positively associated with individual level achievement (L1-ACH) and negatively associated with school-average achievement (L2-ACH)—a finding with important policy implications for the way schools are structured. Extending tests of the BFLPE in new directions, we show that the nonlinear effects of the L1-ACH (a latent quadratic effect) and the interaction between gender and L1-ACH (an L1 × L1 latent interaction) are not significant. Although random-slope models show no significant school-to-school variation in relations between L1-ACH and L1-ASC, the negative effects of L2-ACH (the BFLPE) do vary somewhat with individual L1-ACH.

We conclude with implications for diverse applications of the set of latent contextual models, including recommendations about their implementation, effect size estimates (and confidence intervals) appropriate to multilevel models, and directions for further research in contextual effect analysis.

# Notes

<sup>a</sup>The Mplus Web site (<a href="http://www.statmodel.com/index.shtml">http://www.statmodel.com/index.shtml</a>) contains the syntax for all 10 models and a more general description of Mplus convention for specifying the models (<a href="http://www.statmodel.com/ugexcerpts.shtml">http://www.statmodel.com/ugexcerpts.shtml</a>)

## Relate



### About Cookies On This Site

We and our partners use cookies to enhance your website experience, learn how our site is used, offer personalised features, measure the effectiveness of our services, and tailor content and ads to your interests while you navigate on the web or interact with us across devices. You can choose to accept all of these cookies or only essential cookies. To learn more or manage your preferences, click "Settings". For further information about the data we collect from you, please see our <a href="Privacy Policy">Privacy Policy</a>

# Accept All

Essential Onl

Settings

Information for

**Authors** 

**R&D** professionals

**Editors** 

Librarians

Societies

Opportunities

Reprints and e-prints

Advertising solutions

Accelerated publication

Corporate access solutions

Open access

Overview

Open journals

**Open Select** 

**Dove Medical Press** 

F1000Research

Help and information

Help and contact

Newsroom

All journals

Books

## Keep up to date

Register to receive personalised research and resources by email















Copyright © 2024 Informa UK Limited Privacy policy Cookies Terms & conditions



Accessibility

Registered in England & Wales No. 3099067 5 Howick Place | London | SW1P 1WG

### About Cookies On This Site



We and our partners use cookies to enhance your website experience, learn how our site is used, offer personalised features, measure the effectiveness of our services, and tailor content and ads to your interests while you navigate on the web or interact with us across devices. You can choose to accept all of these cookies or only essential cookies. To learn more or manage your preferences, click "Settings". For further information about the data we collect from you, please see our <a href="Privacy Policy">Privacy Policy</a>



Essential Onl

Settings