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## The problematic estimation of "imitation effects" in multilevel models

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### Abstract

It seems plausible that a person's demographic behaviour may be influenced by that among other people in the community, for example because of an inclination to imitate. When estimating multilevel models from clustered individual data, some investigators might perhaps feel tempted to try to capture this effect by simply including on the right-hand side the average of the dependent variable, constructed by aggregation within the clusters. However, such modelling must be avoided. According to simulation experiments based on real fertility data from India, the estimated effect of this obviously endogenous variable can be very different from the true effect. Also the other community effect estimates can be strongly biased. An "imitation effect" can only be estimated under very special assumptions that in practice will be hard to defend.

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### Keywords





[bias](#), [endogenous](#), [estimation](#), [imitation effect](#), [models](#), [multilevel](#), [simulation](#), [survey](#)

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