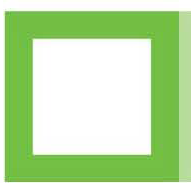


**LETTfR TO ED TOR**



Prompting Psychological Research from Whether, If, studies to How, When and 'When of the How' Studies

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unfold the mechanisms or process between two or more variables and identify the factors that influence the relationships between X and Y. Empirical literature is full with the illustrations of mediation, moderation and conditional process analysis, and there have been various papers and book sections underscoring the value of moderation and mediation analysis. Many of which also provide methodological tutorials, 3 both historically' and more recently.'·'

SPSS, SAS, MPlus, LISREL, and AMOS and so on are widely used

softwareprograms to examine these processes and mechanisms. It is

Sir,

The empirical literature in social, psychological, medical, clinical, health, and communication literatures and among numerous other scientific discipline is bourgeoned with research that provides answers to questions of weather or if. Investigations of "whether" or "if" emphasize mainly on whether two variables are connected, causally or otherwise, or if something ismore or less likely to occur in one set of circumstances or conditions than another's.'·' With the advancement of time, the research questions have become more complex, and noting these complex questions, researchers are no longer satisfied with demonstrating simple associations. Establishing association does not disambiguate into profound understanding even when a causal association can be established. Presently, researchers' questions are looking into the domain of process, mechanism and the conditional peculiarities that 'How?' 'In what route'? 'By which pathway'? 'Under what circumstances'? An impact a process or mechanism might unfold. The "how" question relates with the underlying mental, cognitive, or biological process that causally links X to Y, whereas, the "when" question pertains to the conditions that influence the causal associations. For instance, under what circumstances, or for which sorts of individuals, does X push an effect on Y and under what circumstances, or for which type ofindividuals;doesXnot exert animpact?'

To address these complex questions, mediation and moderation analysis are frequently used. A content analysis of researchers published in Journal in social psychology' exhibited that over one­ half of the articles depicted a mediation analysis, many of which take the simple mediation analysis. Presently a days, Mediation and Moderation analysis are two of the more generally used statistical methods in the social, behavioral and health sciences, as well as in, medicine and other areas. Some of the most highly cited papers in social science methodology this century are about mediation or moderation analysis. Models with more than one mediator, allow a variable's effect to be transmitted to another through multiple mechanisms simultaneously. Two forms of multiple mediators models are commonly in practice, serial multiple mediator models and the parallel multiple mediator models. In addition, models that incorporateboth mediation anda moderation component arecalled conditional process model. In these models, either the direct and/or indirect effectofX on Ythrough Mis moderated by or conditioned on one or more variables. To explain these models terms moderated mediation and mediated moderation are likewise used to uncover the complexmechanisms,oftenknown as'whenof thehow'.'

This article isexpectedto raiseinterest in conducting the studies that

almost vital nowadays that prospective researcher ought to comprehend the changing trends in behavioral studies and know how to execute moderation and mediation analysis in their researches.

REFERENCES

1. Miller TL, Del Carmen TM, Reutzel CR, Certo ST. Mediation in strategic management research: Conceptual beginning, current application, and future recommendation.In D.Ketchen & D. D. Bergh (Eds.), Research methods in strategy and management (pp.295318). London:Elsevier.2007.
2. Preacher KJ, Hayes AF. Contemporary approaches to assessing mediation in communication research. In A. F. Hayes, M. D. Slater, & L. B. Snyder (Eds.), The Sage sourcebook of advanced data analysis methods for communication research (pp. 1354). Thousand Oaks, CA:Sage Publications. 2008b
3. Hayes AF. Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach. New YorkLondon TheGuilfordPress. 2013.
4. Rucker DD, Preacher KJ,Tormala ZL,Petty RE.Mediation analysis in social psychology: Current practice and new recommendations.Personality and Social Psychology Compass 2011;5/6:359371.
5. Baron RM, Kenny DA. The moderatormediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of Personality andSocial Psychology 1986;51:11731182.
6. MacKinnon DP, Lockwood CM, Hoffman JM, West SG. A comparison of methods to test the significance of the mediated effect.Psychological Methods 2002;7:83104.
7. Hayes AF. Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. Communication Monographs 2009;76:408420.

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