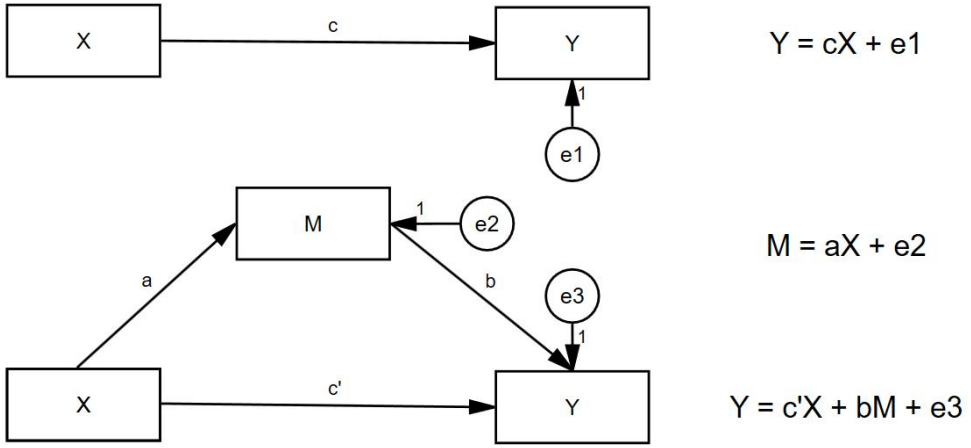
Analysis of Simple Mediation Model Base on Regression & Process



Note:

1.Mediation Model

1.1Complete Mediation: X -> M -> Y: c’ = 0 and a*b 95% Bootstrap CI does not include zero(Theoretically pure but statistically rare);

1.2Partial Mediation: X -> Y & X -> M -> Y: c’ ≠ 0 and a*b 95% Bootstrap CI does not include zero.

2.Effect of X on Y

2.1Total Effect: c(c = a*b + c’);

2.2Indirect Effect: a*b(Proportion Mediated:a*b/c); 2.3Direct Effect: c’(Proportion of Direct Effect:1 - a*b/c).

Table1.Model coefficients for the Simple-Mediation.

Independent Variables	Dependent Variable																	
	Y						M						Y					
	B	SE	Beta	t	LLCI	ULCI	B	SE	Beta	t	LLCI	ULCI	B	SE	Beta	t	LLCI	ULCI
(Constant)	2.079	0.365		5.688***	1.359	2.799	0.555	0.374		1.483N.S.	-0.182	1.293	1.832	0.327		5.596***	1.187	2.476
X	0.623c	0.073	0.477	8.592***	0.480	0.766	0.651a	0.074	0.485	8.765***	0.505	0.797	0.333c'	0.074	0.255	4.504***	0.187	0.478
M													0.445b	0.055	0.458	8.094***	0.337	0.554
	R-Sq=0.228						R-Sq=0.235						R-Sq=0.389,Adj. R-Sq=0.384, ΔR-SqA=0.161,ΔF(1,249)=65.505***					
	F(1,250)=73.891***						F(1,250)=76.824***						F(2,249)=79.185***					

Note: N.S. : No Significant;***:p<0.001.

A:(Incremental variance explained) R-Sq[1] - R-Sq[2] ([1] : Predictors : (Constant) , X ; [2] : Predictors : (Constant) , X , M . *Note : Hierarchical Regression*)

Table2.Effect of X On Y.

Total Effect of X on Y					
Effect	SE	t	LLCI	ULCI	Proportion
0.623c	0.073	8.592***	0.480	0.766	/
Direct Effect of X on Y					
Effect	SE	t	LLCI	ULCI	Proportion
0.333c'	0.074	4.504***	0.187	0.478	0.53
Indirect Effect of X on Y:X->M->Y					
Effect	Std.Effect	BootSE	BootLLCI	BootULCI	Proportion
0.290a*b	0.222	0.047	0.202	0.386	0.47

Note:***:p<0.001.

Level of confidence = 95% ; Number of Bootstrap Samples = 1000.