Reporting a Moderated Mediation – Two Examples

Based on my <u>Youtube tutorial about reporting a moderated mediation</u>, here are two example reports based on the data used for that video tutorial.

You can find the data used for these reports here: http://www.regorz-statistik.de/en/output_PROCESS_model_7.pdf http://www.regorz-statistik.de/en/output_PROCESS_model_15.pdf

If you would like to have support for the interpretation of your PROCESS models, then you can find more information about my **statistical consulting services** here: <u>http://www.regorz-statistik.de/en/consulting.html</u>

Note. In the texts, for the variables I have used "IV", "DV", etc., because I have used simulated data sets and not real data. If you report your analysis, then you should use the names for your constructs instead. So, you should write, e.g., "Intergroup contact had a significant positive effect on prejudice, $b = \dots$ " and not "The independent variable had a significant positive effect on the mediator, $b = \dots$ ".

Furthermore, a rather small (simulated) dataset was used for this illustration. In real research, N = 30 is much too small for a moderated mediation analysis.

Example 1 – Model 7 & Top-Down-Approach, long version

The index of moderated mediation was significant, b = -0.64, 95% percentile CI [-0.66, -0.62], providing evidence for a moderated mediation. The (negative) conditional indirect effect for high values (+ 1 *SD*) of MOD was the strongest, b = -4.06, 95% percentile CI [-4.15, -3.98], it was weaker but still significant for medium values (*M*) of MOD, b = -2.62, CI [-2.68, -2.54] and for small values (- 1 *SD*) of MOD, b = -1.18, CI [-1.24, -1.06].

For the a-path from IV to MED there was a significant interaction between IV and MOD, b = -0.79, p < .001, $\Delta R^2 = .15$. The (negative) conditional effect from IV on MED was the strongest for high values (+ 1 *SD*) of MOD, b = -5.05, p < .001, it was weaker but still significant for medium values (*M*) of MOD, b = -3.25, p < .001, and for small values (- 1 *SD*) of MOD, b = -1.46, p < .001. For the full regression results see table 1.

The b-path from MED to DV was significant, b = 0.80, p < .001. The direct effect from IV to DV was significant, too, b = 0.15, p < .001. For the full regression results see table 1.

Table 1

	Regression	results for a	the a-path fron	n IV to MED and fo	or the b-path from	MED to DV
--	------------	---------------	-----------------	--------------------	--------------------	-----------

Variable	Model a-path			Model b/c'-path		
	b	SE	р	b	SE	р
IV	-3.25	0.04	<.001	0.15	0.03	<.001
MOD	-4.51	0.04	<.001			
IV x MOD	-0.79	0.01	<.001			
MED				0.80	0.01	<.001
COVA	-0.07	0.07	.296	0.20	0.05	<.001

Note. N = 30. Model for the a-path $R^2 = .99$, F(4, 25) = 5,024.28, p < .001, Model for b-path and c'-path $R^2 = .99$, F(3, 26) = 7,538.67, p < .001.

Example 2 – Model 15 & Bottom-Up-Approach, short version

The data showed a significant a-path from IV to MED, b = -2.27, p = .022. However, there was no significant interaction between MED and MOD for the b-path, b = -0.005, p = .142, $\Delta R^2 = .00$. The direct effect c' from IV to DV wasn't moderated by MOD either, b = -0.09, p = .460, $\Delta R^2 = .00$. The index of moderated mediation was not significant, b = 0.01, 95% percentile CI [-0.01, 0.03]. Thus, we found no evidence for a moderated mediation. All results were controlled for COVA.

Bochum, 17.05.2022 Regorz Statistik Arndt Regorz, M.Sc. www.regorz-statistik.de/en mail@regorz-statistik.de