

PROCESS v3 supplement to

Hayes, A. F. (2015). An index and test of linear moderated mediation. *Multivariate Behavioral Research*, 50, 1-22.

In the published version of Hayes (2015), the appendix contains PROCESS v2 code corresponding to the three examples in the paper. The syntax structure in PROCESS v3, released in late 2017, is different than in v2, and some new options and models have been added to PROCESS v3 to simplify the estimation of models that combine moderation and serial mediation. This document provides PROCESS v3 code corresponding to the three examples in the original appendix.

PROCESS v3 is documented in the 2nd edition of *Introduction to Mediation, Moderation, and Conditional Process Analysis*. www.guilford.com/p/hayes3

Example 1: Strenuous Exercise and Pain Perception

In the SPSS version of PROCESS v3, the command is

```
process y=pain/x=activity/m=pcs/w=anxiety/cov=sex bdi immerse  
/model=7/moments=1/boot=10000/center=1.
```

The comparable command for the SAS version of PROCESS v3, assuming the data file is named “icy,” is

```
%process (data=icy,y=pain,x=activity,m=pcs,w=anxiety,  
cov=sex bdi immerse,model=7,moments=1,boot=10000,center=1) ;
```

Example 2: Trauma and Mental Health

In the SPSS version of PROCESS v3, the command is

```
process y=depress/m=ptsd/x=trauma/w=loneley/cov=age/model=14  
/moments=1/boot=10000/center=1.
```

The comparable command for the SAS version of PROCESS v3, assuming the data file is named “alaqsa,” is

```
%process (data=alaqsa,y=depress,x=trauma,m=ptsd,w=loneley,  
cov=age,moments=1,model=14,boot=10000,center=1) ;
```

Example 3: The Bin Laden Effect

PROCESS v3 has models preprogrammed that combine serial mediation and moderation (see the model templates in Appendix A of Hayes (2018)). For this example, the model is 85. PROCESS also will automatically generate conditional direct and indirect effects and the indices of moderated mediation for all three specific indirect effects.

In the SPSS version of PROCESS v3, the command is

```
process y=mcivil/m=stereo rthreat/x=binladen/w=age/  
cov=ideo sex/moments=1/model=85/boot=10000/center=1.
```

The comparable command for the SAS version of PROCESS v3, assuming the data file is named "binladen," is

```
%process (data=binladen,y=mcivil,m=stereo rthreat,x=binladen,  
w=age,cov=ideo sex,moments=1,model=85,boot=10000,center=1) ;
```

Note that the centering command is not required in any of these commands. Elimination of the centering option in the commands above will produce results that are substantively identical.

References

- Hayes, A. F. (2015). An index and test of linear moderated mediation. *Multivariate Behavioral Research*, 50, 1-22.
- Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based perspective* (2nd Ed). New York: The Guilford Press.