# 中介、調節、與條件程序分析

# Mediation, Moderation, and Conditional Process Analysis

## 講師

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## 講師簡介

## Short Biography

## 時間

2018年5月19日（六）-20日（日）

## 地點

政治大學社會科學資料中心

## Time

Saturday, May 19, 2918 – Sunday, May 20, 2018

## Place

Social Sciences Information Center, National Chengchi University

## 簡介

中介（mediation）與調節（moderation）統計分析是社會科學領域被廣泛使用、但常令人混淆的計量方法。中介分析檢視「因果關係發生的機制」，指自變項對依變項的影響至少有部分是透過中介變項（mediator）產生；調節分析檢視「因果關係發生的條件」，指自變項對依變項的影響因調節變項（moderator）不同而改變，亦被稱為交互作用（interaction）。近年，結合中介與調節的研究逐漸增加，在分析上整合兩者的條件程序分析（conditional process analysis）也隨之誕生。中介與調節分析可以說是任何實證學者在進行研究工作時必備的知識。這次工作坊將從一般最小平方（ordinary least squares）迴歸分析的角度，深入說明中介、調節、與條件程序分析的基礎原則，及講者針對SPSS統計軟體所開發之PROCESS巨集（3.0版）的新功能、應用與範例。

## Description

Statistical mediation and moderation analyses are among the most widely used, but often confused, data analysis techniques in social science. Mediation analysis is used to test hypotheses about various intervening mechanisms by which causal effects operate. Moderation analysis is used to examine and explore questions about the contingencies or conditions of an effect, also called “interaction.” Increasingly, moderation and mediation are being integrated analytically in the form of what has become known as “conditional process analysis,” used when the goal is to understand the contingencies or conditions under which mechanisms operate. An understanding of the fundamentals of mediation and moderation analysis is in the job description of almost any empirical scholar. In this course, you will learn about the underlying principles and the practical applications of these methods using ordinary least squares (OLS) regression analysis and the PROCESS macro (version 3.0) for SPSS invented by the course instructor.

## 主題

* 路徑分析：中介模型中的直接效果、間接效果、與總效果
* 單一中介變項模型中，間接效果的估計與推論
* 多中介變項模型
* 調節效果與條件效果估計
* 調查與視覺化交互作用
* 條件程序分析（調節式中介）
* 條件間接效果的定量與推論
* 檢驗調節式中介假設與比較條件間接效果

這次工作坊主要關注依變項為連續變項的實驗研究或橫斷面研究，沒有包含依變項為二分變項、潛在變項、重複測量、層次資料（也就是多層次模型）、或結構方程模型等複雜模型。

## Topics covered

* Path analysis: Direct, indirect, and total effects in mediation models.
* Estimation and inference about indirect effects in single mediator models.
* Models with multiple mediators.
* Estimation of moderation and conditional effects.
* Probing and visualizing interactions.
* Conditional process analysis (“moderated mediation”)
* Quantification of and inference about conditional indirect effects.
* Testing a moderated mediation hypothesis and comparing conditional indirect effects.

**What is not covered**. We focus primarily on research designs that are experimental or cross-sectional in nature with continuous outcomes. We do not cover complex models involving dichotomous outcomes, latent variables, repeated measures, nested data (i.e., multilevel models), or the use of structural equation modeling.

## 推薦書目

這次的工作坊可以與講師以下的著作搭配。是否閱讀這本書籍不會影響對工作坊內容的吸收，但可以增進瞭解。

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). New York, NY: Guilford Press.

## Recommended book

This course is a companion to the instructor’s book below. A copy of the book is not required to benefit from the course, but it could be helpful to reinforce understanding.

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). New York, NY: Guilford Press.

## 先備知識

工作坊參與者需具備多元迴歸及統計推論的基礎知識，並熟悉SPSS統計軟體。

**Course prerequisites**. Participants should have a basic knowledge of the principles and practice of multiple regression and statistical inference. Familiarity with the use of SPSS is assumed.

## 計算工具

## Computing technology

# 工作坊時間表

# Workshop Schedule

|  |  |  |
| --- | --- | --- |
|  | **5/19 (Saturday)** | **5/20 (Sunday)** |
| **8:30-8:50** | Registration | Registration |
| **8:50-9:00** | Opening Remarks |
| **9:00-10:30** | Session 1 | Session 5 |
| **10:30-11:00** | Tea Break | Tea Break |
| **11:00-12:30** | Session 2 | Session 6 |
| **12:30-13:30** | Lunch Break | Lunch Break |
| **13:30-15:00** | Session 3 | Session 7 |
| **15:00-15:30** | Tea Break | Tea Break |
| **15:30-17:00** | Session 4 | Session 8 |
| **17:00-17:30** | Q & A | Q & A |