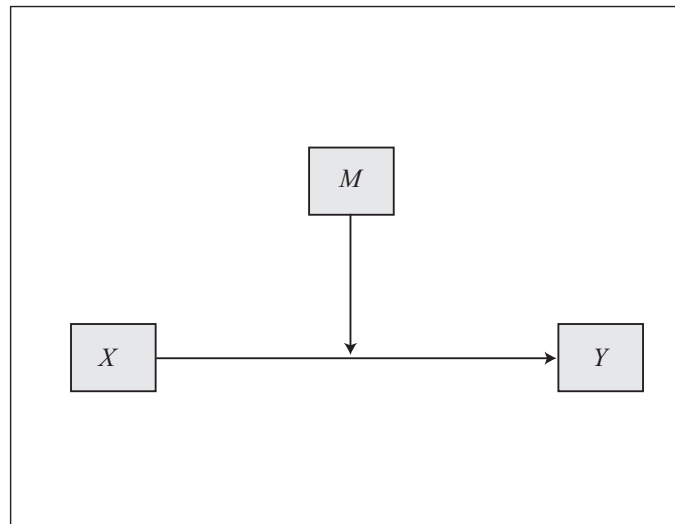
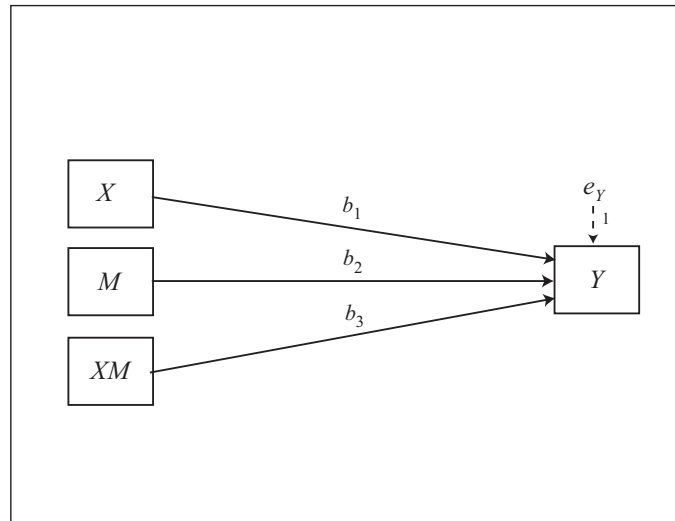


### Model 1

Conceptual Diagram



Statistical Diagram

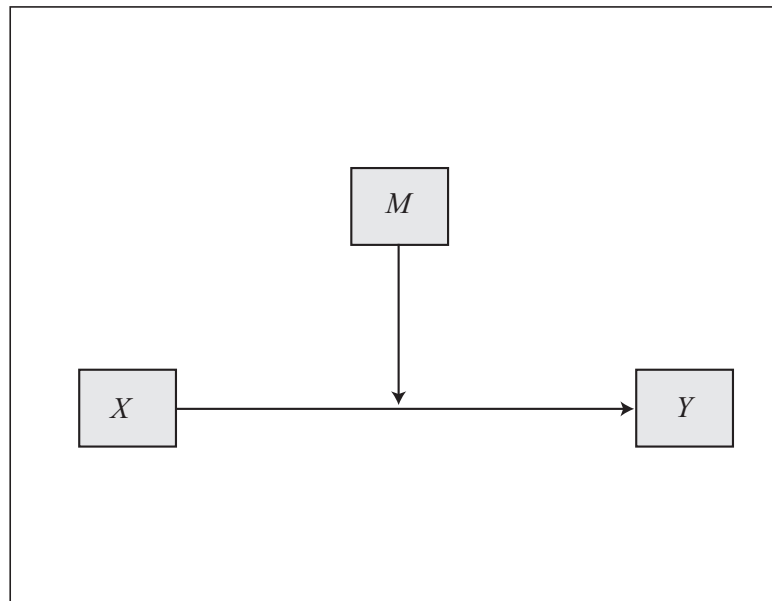


Conditional effect of  $X$  on  $Y = b_1 + b_3M$

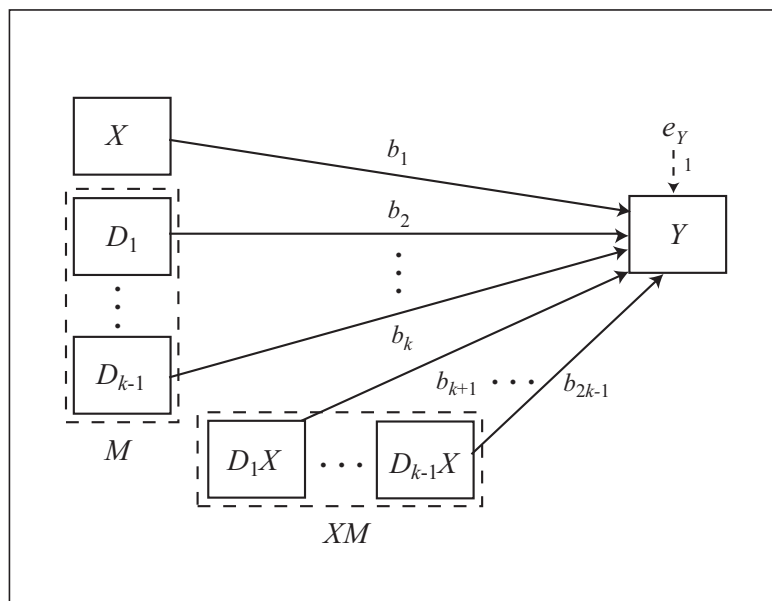
### Model 1

Multicategorical  $M$  with  $k$  categories  
 (PROCESS v2.14 or later)

Conceptual Diagram



Statistical Diagram

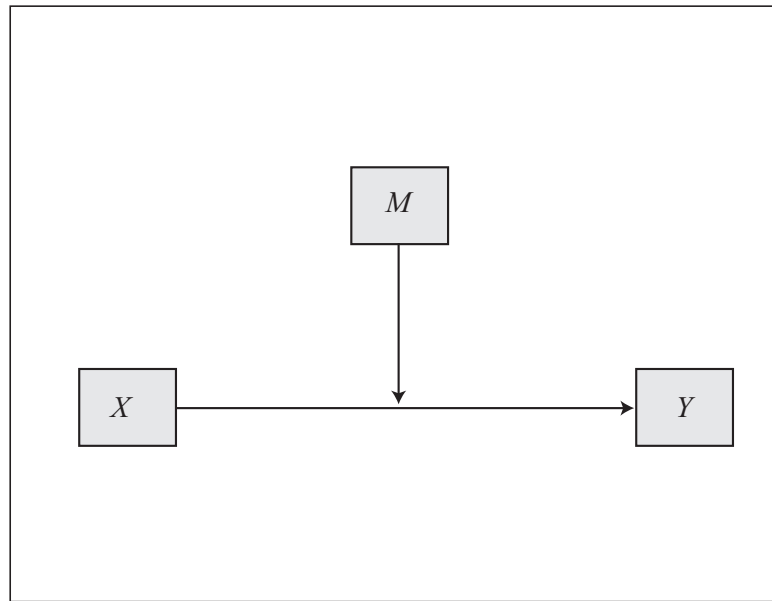


$$\text{Conditional effect of } X \text{ on } Y = b_1 + b_{k+1}D_1 + \dots + b_{2k-1}D_{k-1}$$

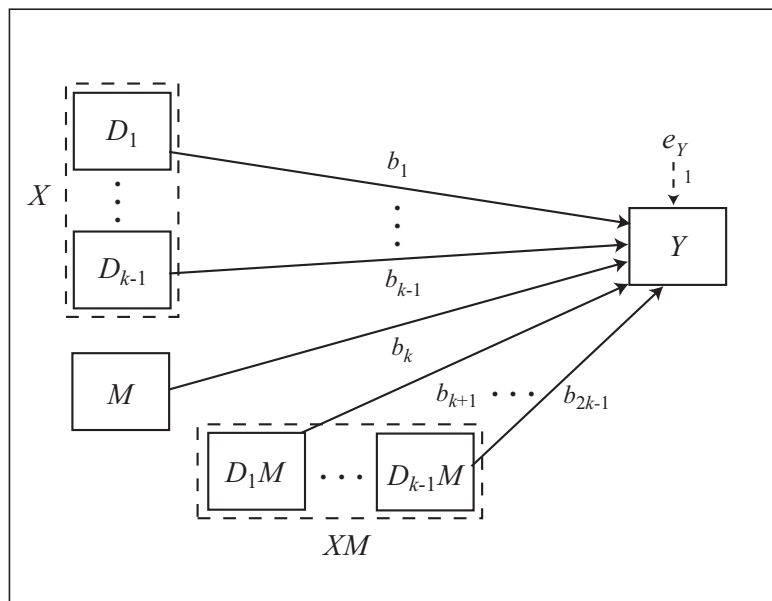
### Model 1

Multicategorical  $X$  with  $k$  categories  
 (PROCESS v2.14 or later)

#### Conceptual Diagram



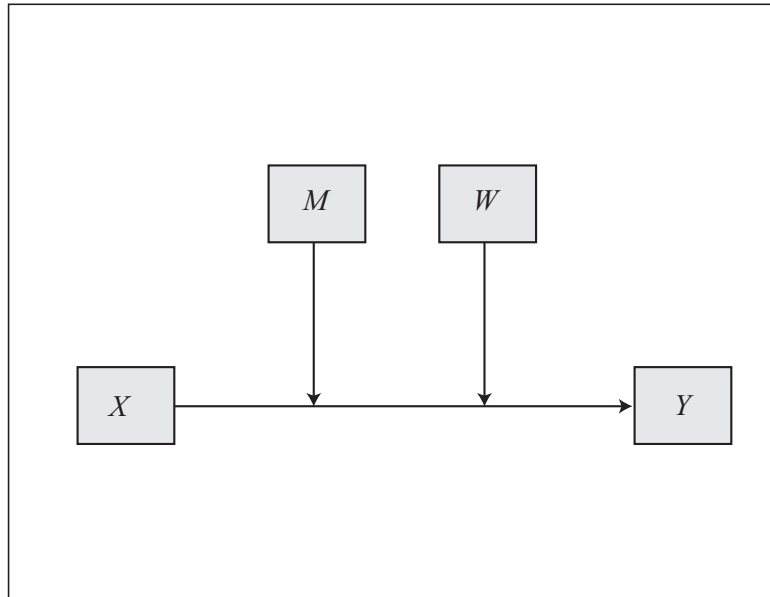
#### Statistical Diagram



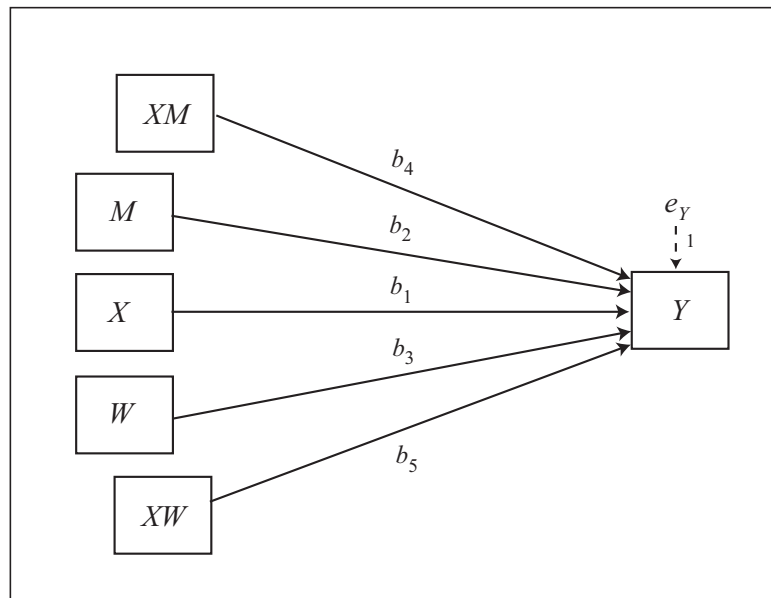
$$\text{Conditional effect of } X \text{ on } Y = \begin{cases} b_1 + b_{k+1}M \\ \vdots \\ b_{k-1} + b_{2k-1}M \end{cases}$$

## Model 2

Conceptual Diagram



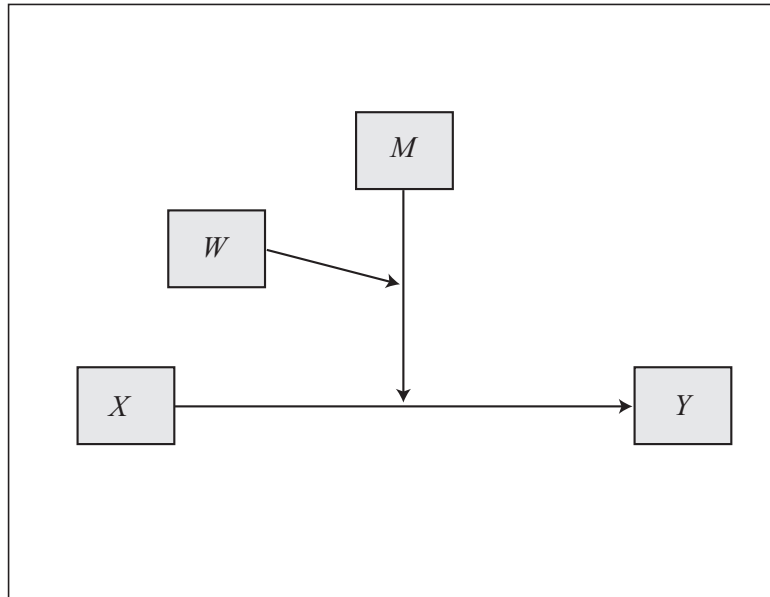
Statistical Diagram



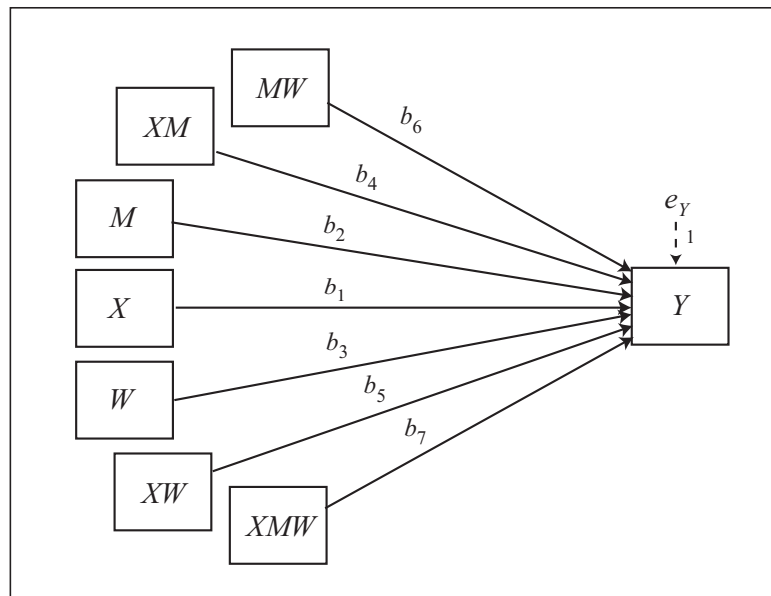
Conditional effect of  $X$  on  $Y = b_1 + b_4M + b_5W$

### Model 3

Conceptual Diagram



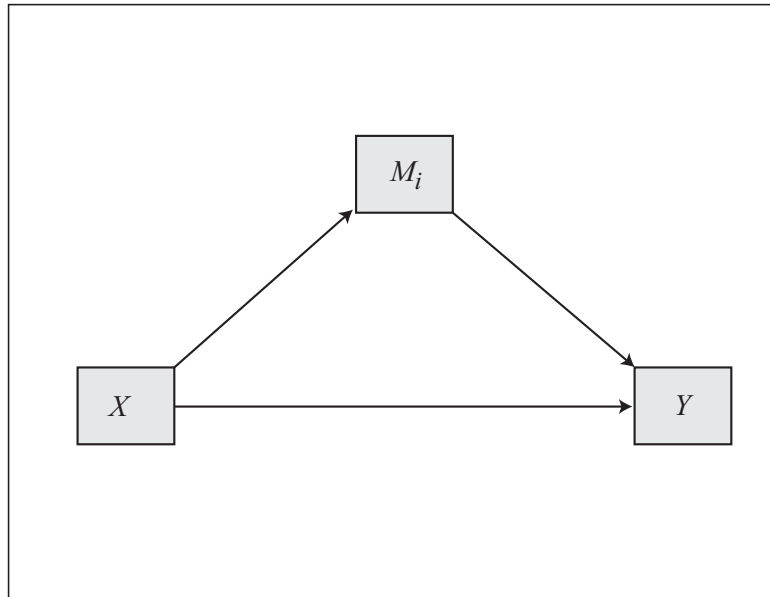
Statistical Diagram



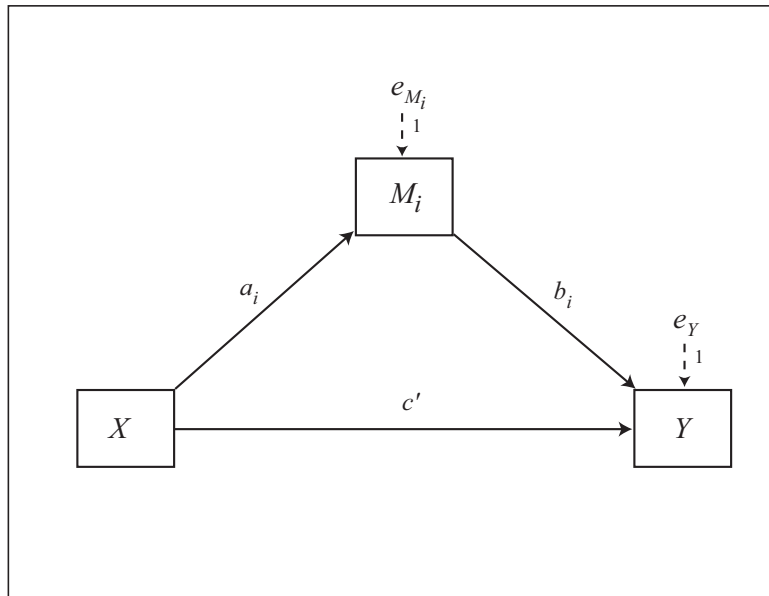
$$\text{Conditional effect of } X \text{ on } Y = b_1 + b_4M + b_5W + b_7MW$$

### Model 4

Conceptual Diagram



Statistical Diagram



Indirect effect of  $X$  on  $Y$  through  $M_i = a_i b_i$

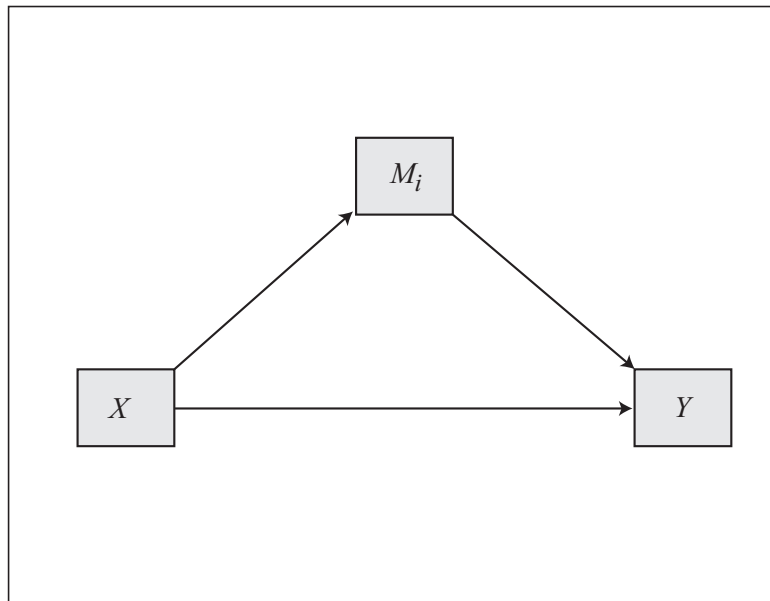
Direct effect of  $X$  on  $Y = c'$

Note: Model 4 allows up to 10 mediators operating in parallel.

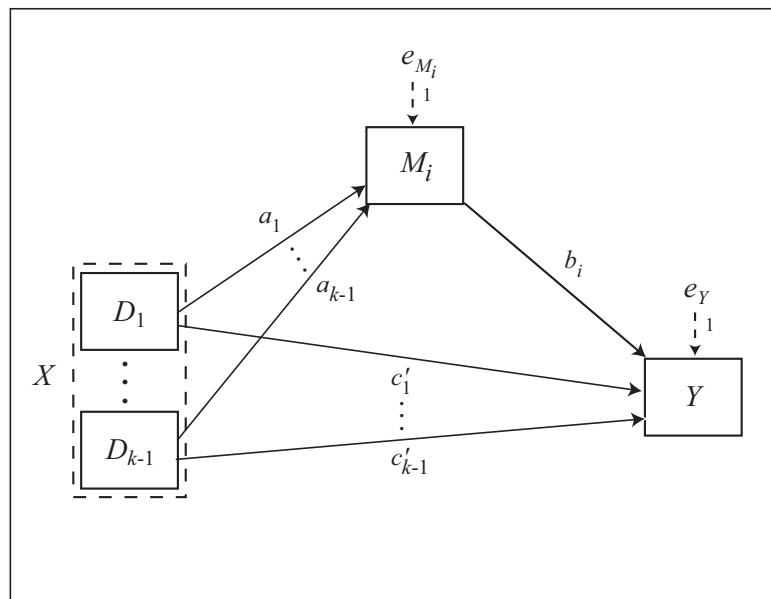
### Model 4

Multicategorical  $X$  with  $k$  categories  
 (PROCESS v2.15 or later)

#### Conceptual Diagram



#### Statistical Diagram



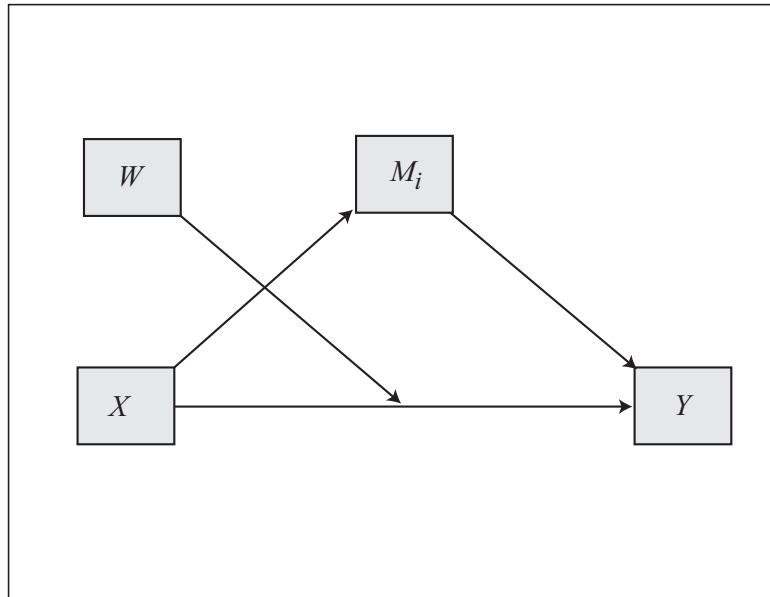
$$\text{Relative indirect effect of } X \text{ on } Y \text{ through } M_i = \begin{Bmatrix} a_1 b_i \\ \vdots \\ a_{k-1} b_i \end{Bmatrix}$$

$$\text{Relative direct effect of } X \text{ on } Y = \begin{Bmatrix} c'_1 \\ \vdots \\ c'_{k-1} \end{Bmatrix}$$

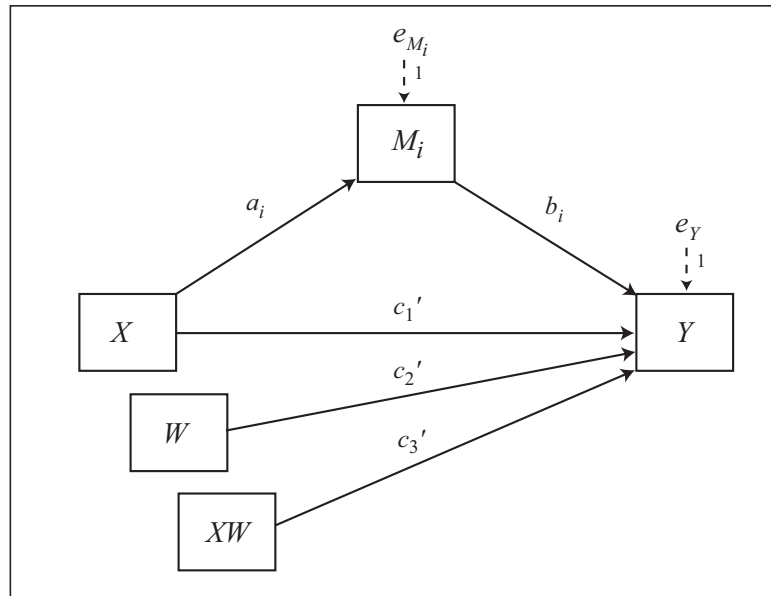
Note: Model 4 allows up to 10 mediators operating in parallel.

## Model 5

Conceptual Diagram



Statistical Diagram



Indirect effect of  $X$  on  $Y$  through  $M_i = a_i b_i$

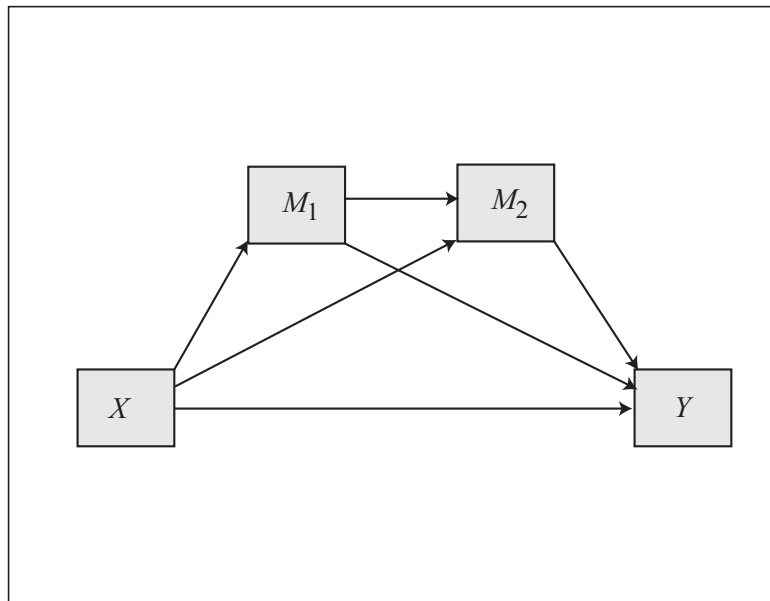
Conditional direct effect of  $X$  on  $Y = c_1' + c_3'W$

\*Model 5 allows up to 10 mediators operating in parallel

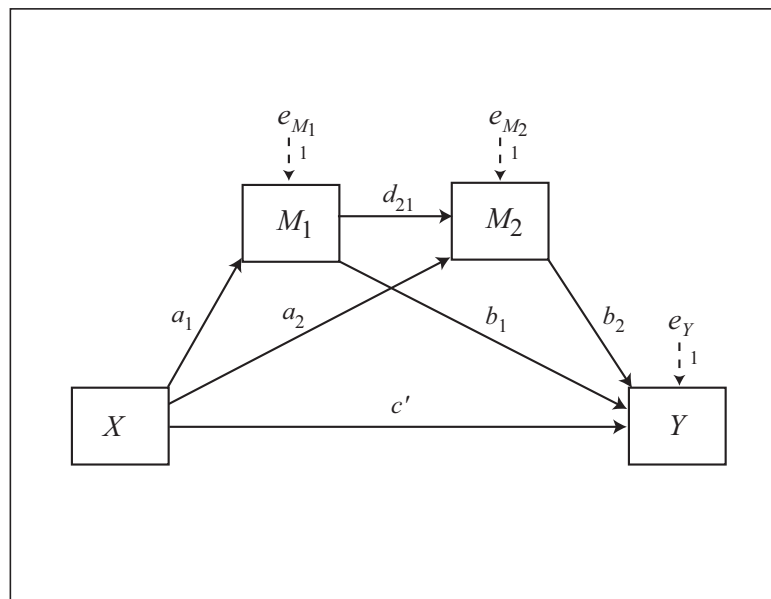


**Model 6**  
(2 mediators)

Conceptual Diagram



Statistical Diagram



Indirect effect of  $X$  on  $Y$  through  $M_i$  only =  $a_i b_i$

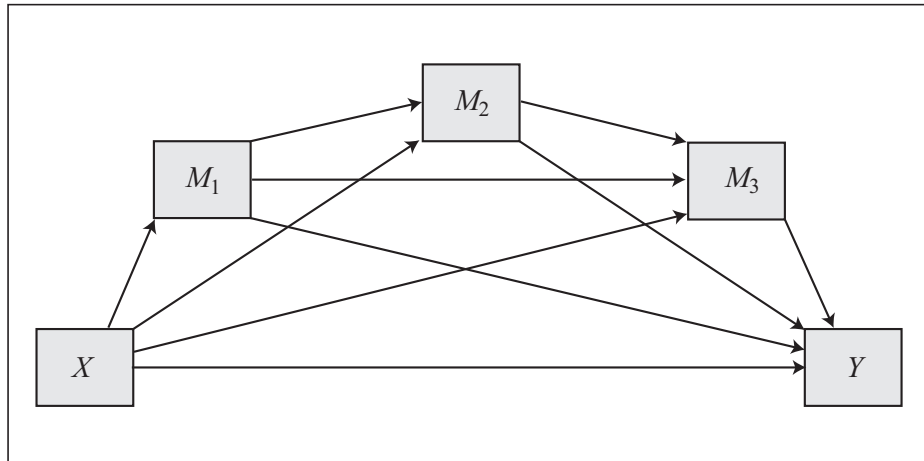
Indirect effect of  $X$  on  $Y$  through  $M_1$  and  $M_2$  in serial =  $a_1 d_{21} b_2$

Direct effect of  $X$  on  $Y$  =  $c'$

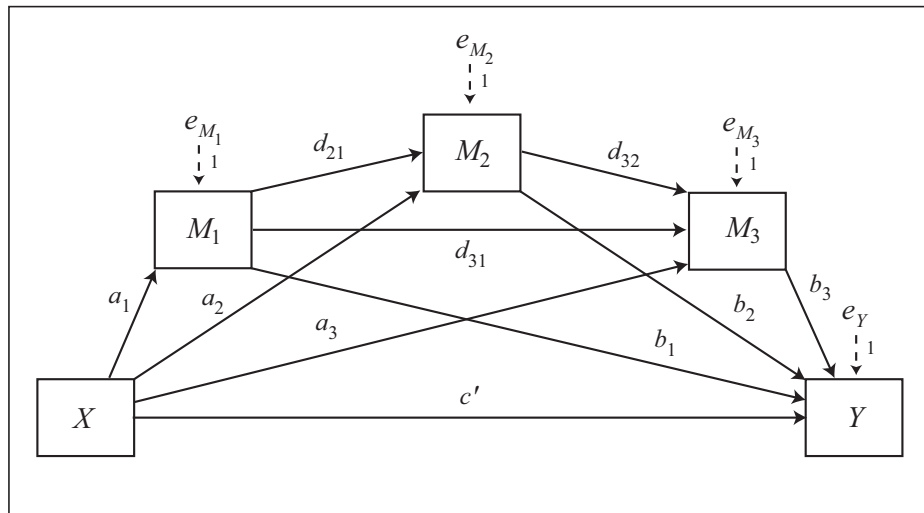
Note: Model 6 allows up to 4 mediators operating in serial.

**Model 6**  
 (3 mediators)

Conceptual Diagram



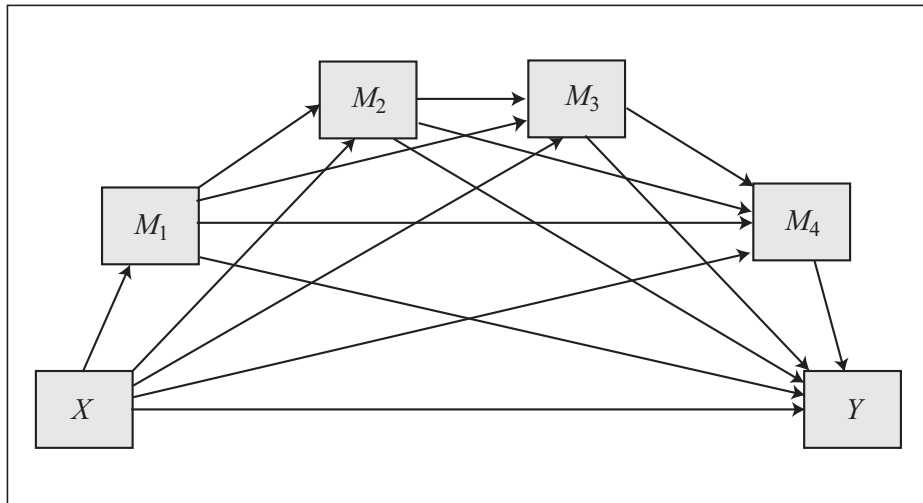
Statistical Diagram



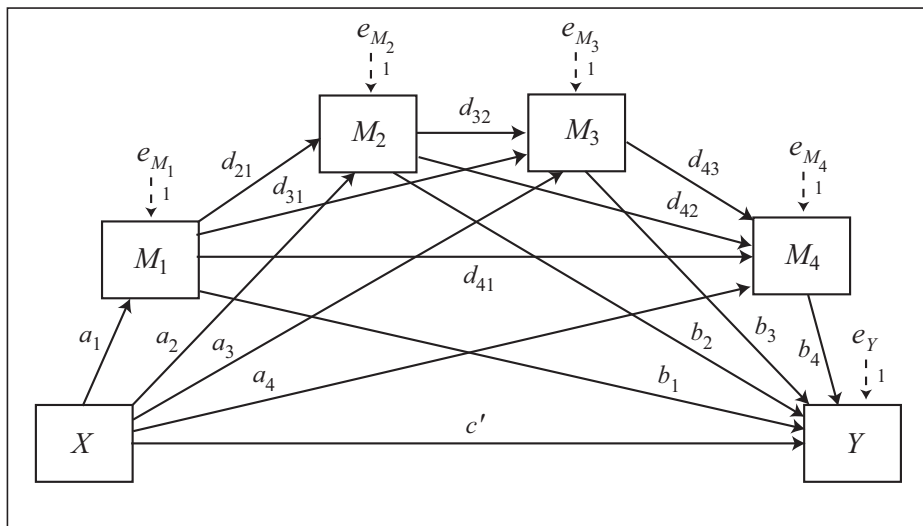
Indirect effect of  $X$  on  $Y$  through  $M_i$  only =  $a_i b_i$   
 Indirect effect of  $X$  on  $Y$  through  $M_1$  and  $M_2$  in serial =  $a_1 d_{21} b_2$   
 Indirect effect of  $X$  on  $Y$  through  $M_1$  and  $M_3$  in serial =  $a_1 d_{31} b_3$   
 Indirect effect of  $X$  on  $Y$  through  $M_2$  and  $M_3$  in serial =  $a_2 d_{32} b_3$   
 Indirect effect of  $X$  on  $Y$  through  $M_1$ ,  $M_2$ , and  $M_3$  in serial =  $a_1 d_{21} d_{32} b_3$   
 Direct effect of  $X$  on  $Y = c'$

**Model 6**  
 (4 mediators)

Conceptual Diagram



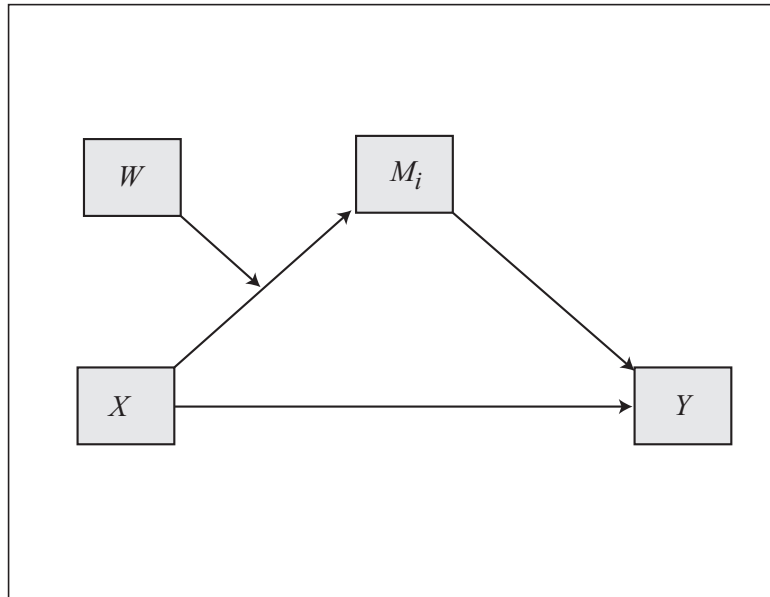
Statistical Diagram



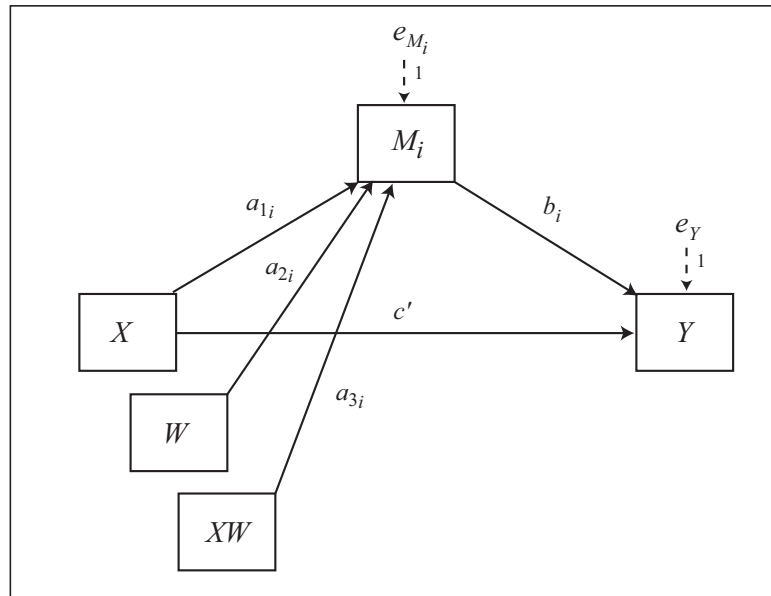
Indirect effect of  $X$  on  $Y$  through  $M_i$  only =  $a_i b_i$   
 Indirect effect of  $X$  on  $Y$  through  $M_1$  and  $M_2$  in serial =  $a_1 d_{21} b_2$   
 Indirect effect of  $X$  on  $Y$  through  $M_1$  and  $M_3$  in serial =  $a_1 d_{31} b_3$   
 Indirect effect of  $X$  on  $Y$  through  $M_1$  and  $M_4$  in serial =  $a_1 d_{41} b_4$   
 Indirect effect of  $X$  on  $Y$  through  $M_2$  and  $M_3$  in serial =  $a_2 d_{32} b_3$   
 Indirect effect of  $X$  on  $Y$  through  $M_2$  and  $M_4$  in serial =  $a_2 d_{42} b_4$   
 Indirect effect of  $X$  on  $Y$  through  $M_3$  and  $M_4$  in serial =  $a_3 d_{43} b_4$   
 Indirect effect of  $X$  on  $Y$  through  $M_1$ ,  $M_2$ , and  $M_3$  in serial =  $a_1 d_{21} d_{32} b_3$   
 Indirect effect of  $X$  on  $Y$  through  $M_1$ ,  $M_2$ , and  $M_4$  in serial =  $a_1 d_{21} d_{42} b_4$   
 Indirect effect of  $X$  on  $Y$  through  $M_1$ ,  $M_3$ , and  $M_4$  in serial =  $a_1 d_{31} d_{43} b_4$   
 Indirect effect of  $X$  on  $Y$  through  $M_2$ ,  $M_3$ , and  $M_4$  in serial =  $a_2 d_{32} d_{43} b_4$   
 Indirect effect of  $X$  on  $Y$  through  $M_1$ ,  $M_2$ ,  $M_3$ , and  $M_4$  in serial =  $a_1 d_{21} d_{32} d_{43} b_4$   
 Direct effect of  $X$  on  $Y$  =  $c'$

## Model 7

### Conceptual Diagram



### Statistical Diagram



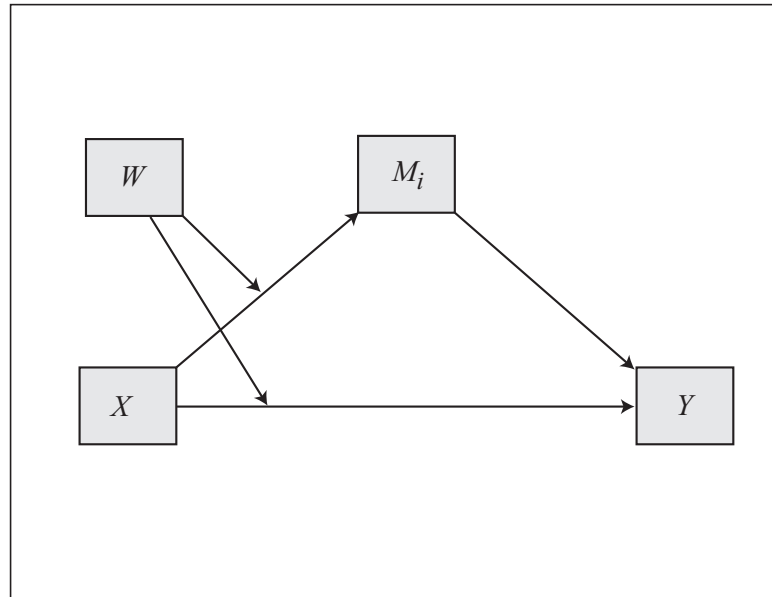
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)b_i$

Direct effect of  $X$  on  $Y = c'$

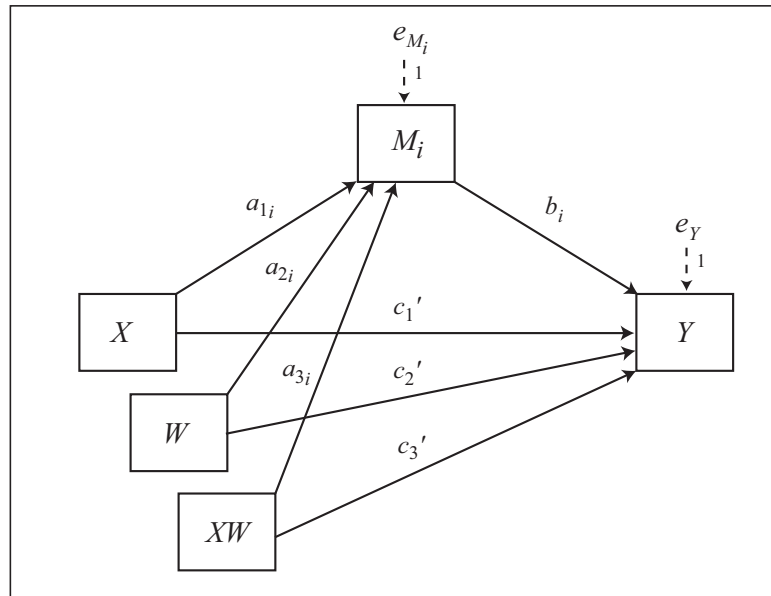
Note: Model 7 allows up to 10 mediators operating in parallel.

## Model 8

Conceptual Diagram



Statistical Diagram



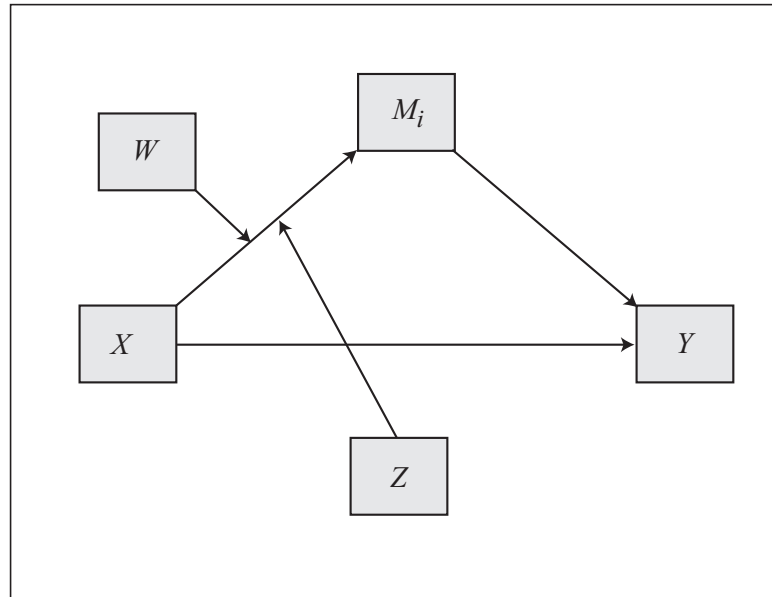
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)b_i$

Conditional direct effect of  $X$  on  $Y = c_1' + c_3'W$

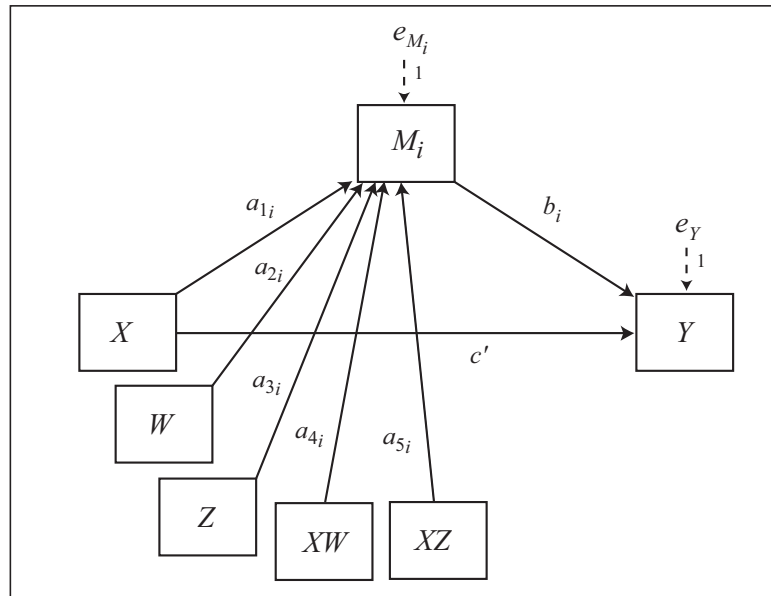
Note: Model 8 allows up to 10 mediators operating in parallel.

## Model 9

Conceptual Diagram



Statistical Diagram



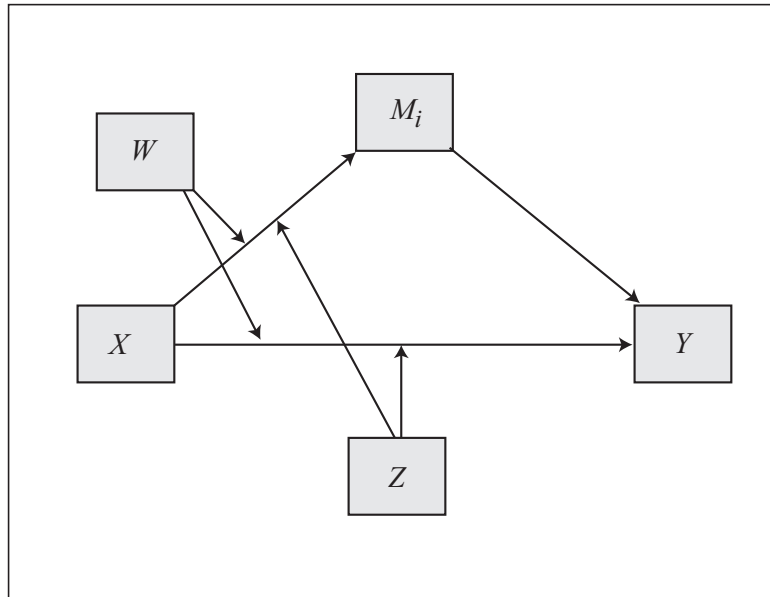
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z) b_i$

Direct effect of  $X$  on  $Y = c'$

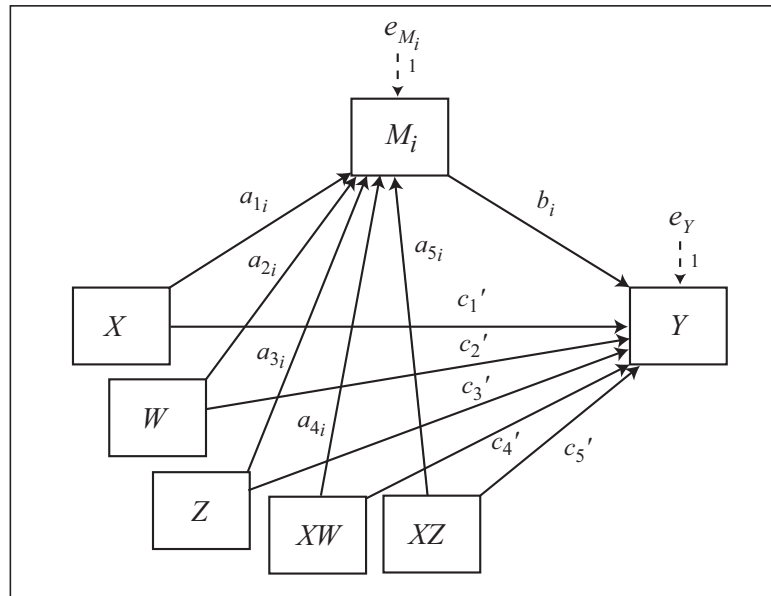
\*Model 9 allows up to 10 mediators operating in parallel

## Model 10

Conceptual Diagram



Statistical Diagram



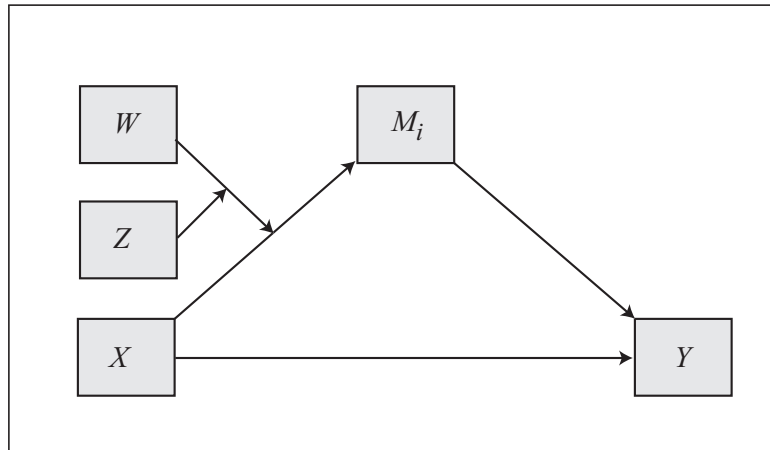
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z) b_i$

Conditional direct effect of  $X$  on  $Y = c_1' + c_4'W + c_5'Z$

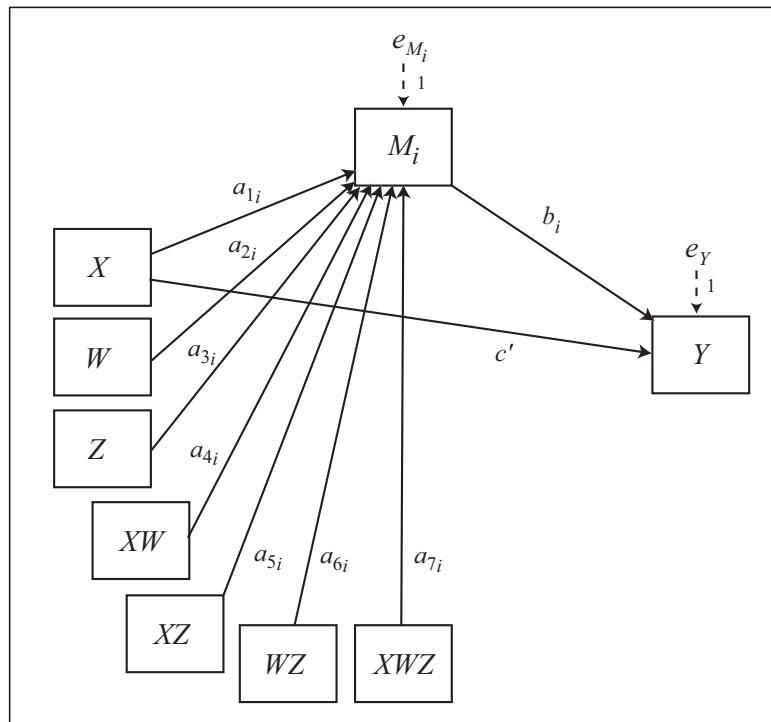
\*Model 10 allows up to 10 mediators operating in parallel

## Model 11

### Conceptual Diagram



### Statistical Diagram



Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z + a_{7i}WZ) b_i$

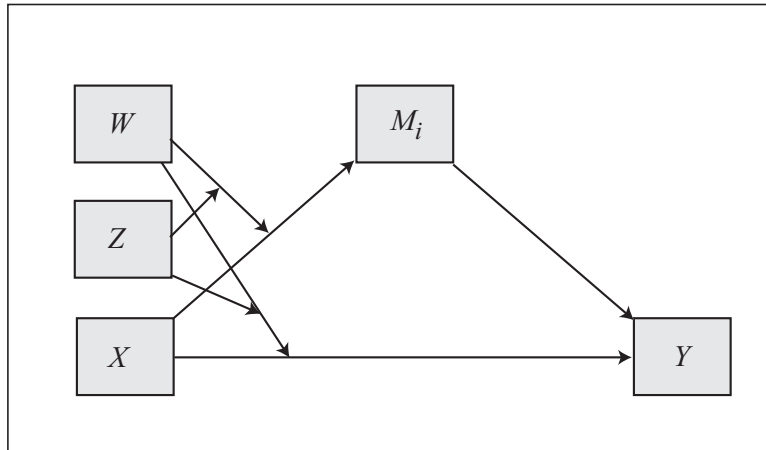
Direct effect of  $X$  on  $Y = c'$

\*Model 11 allows up to 10 mediators operating in parallel

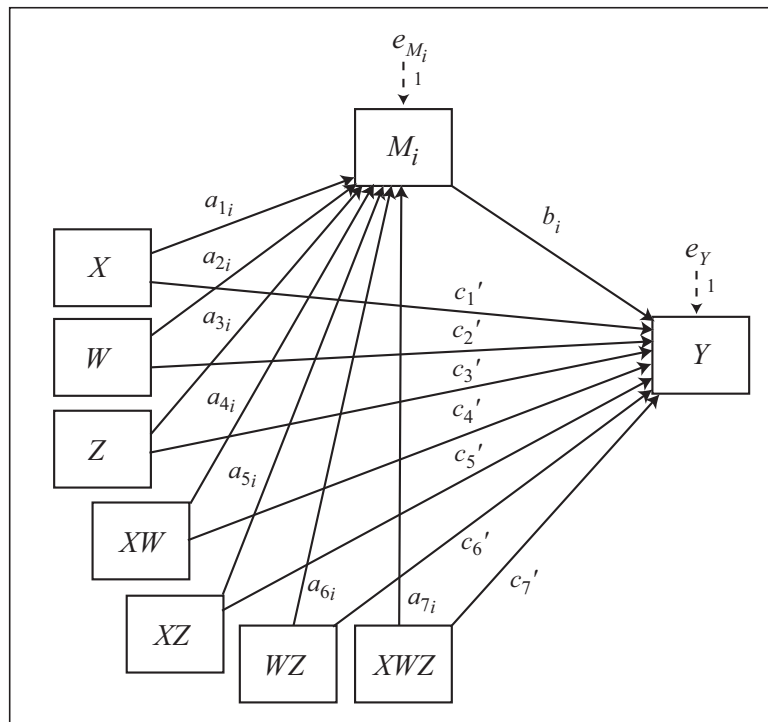


## Model 12

### Conceptual Diagram



### Statistical Diagram



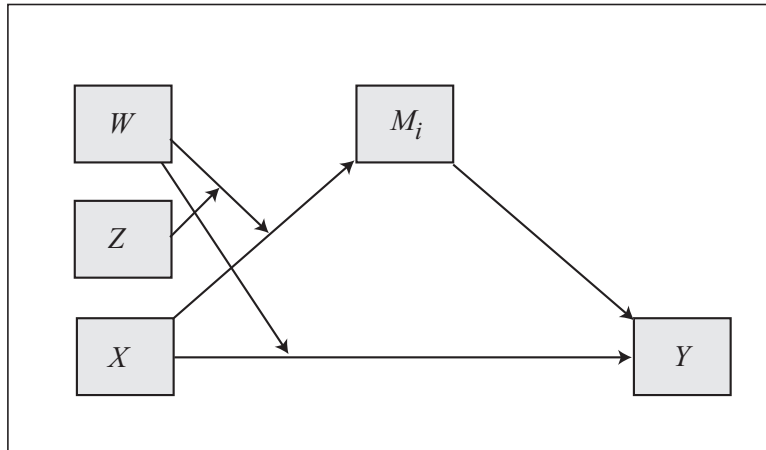
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z + a_{7i}WZ) b_i$

Conditional direct effect of  $X$  on  $Y = c_1' + c_4'W + c_5'Z + c_7'WZ$

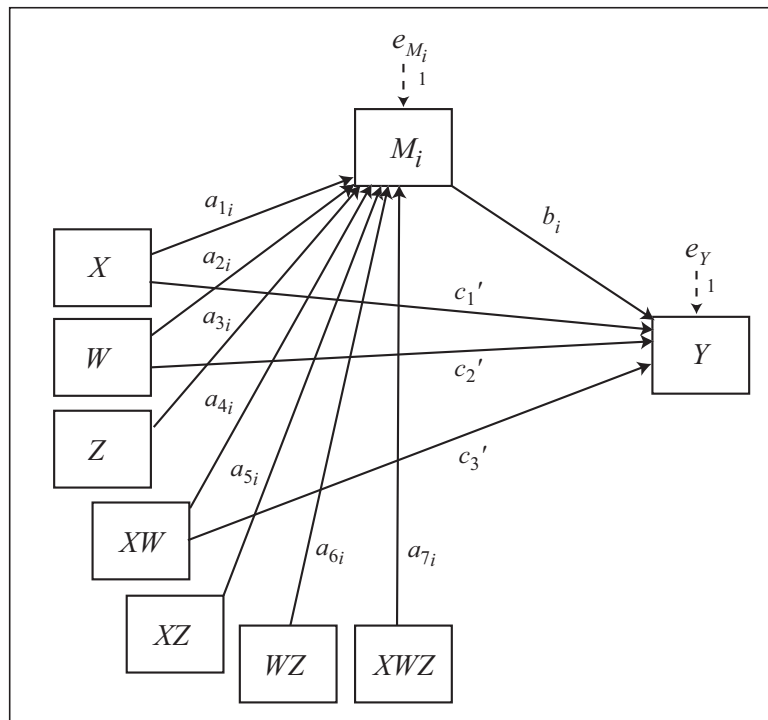
Note: Model 12 allows up to 10 mediators operating in parallel.

### Model 13

#### Conceptual Diagram



#### Statistical Diagram



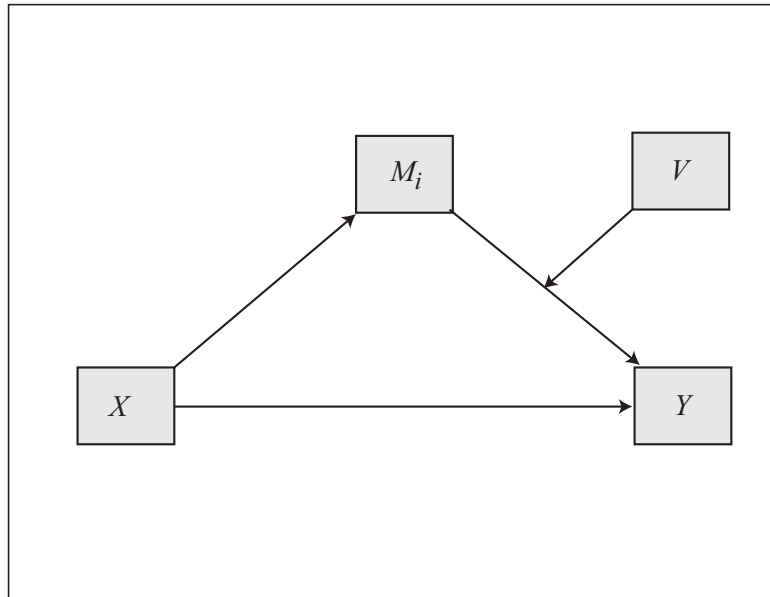
Conditional indirect effect of X on Y through M<sub>i</sub> = (a<sub>1i</sub> + a<sub>4i</sub>W + a<sub>5i</sub>Z + a<sub>7i</sub>WZ) b<sub>i</sub>

Conditional direct effect of X on Y = c<sub>1'</sub> + c<sub>3'</sub>W

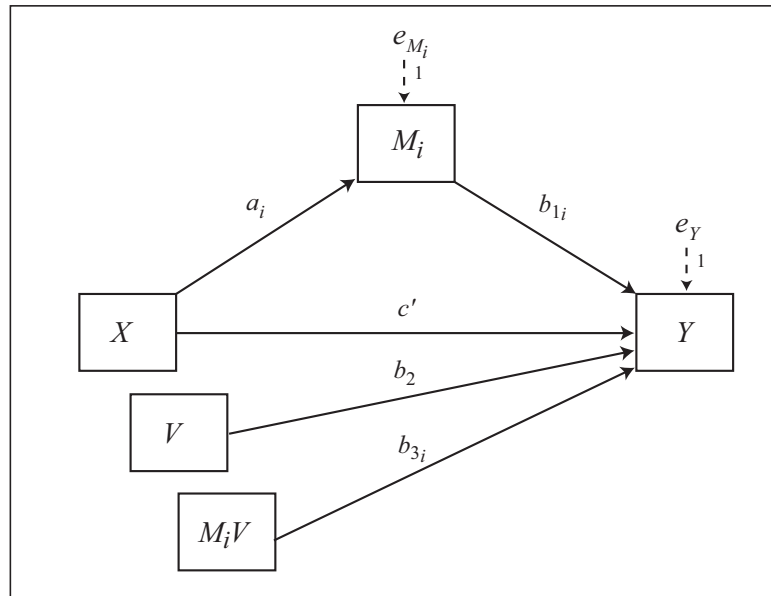
\*Model 13 allows up to 10 mediators operating in parallel

## Model 14

Conceptual Diagram



Statistical Diagram



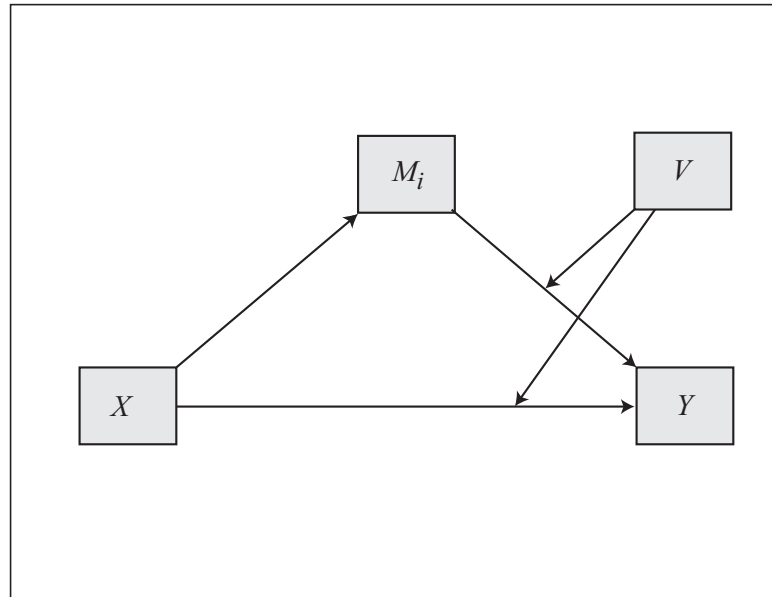
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = a_i (b_{1i} + b_{3i}V)$

Direct effect of  $X$  on  $Y = c'$

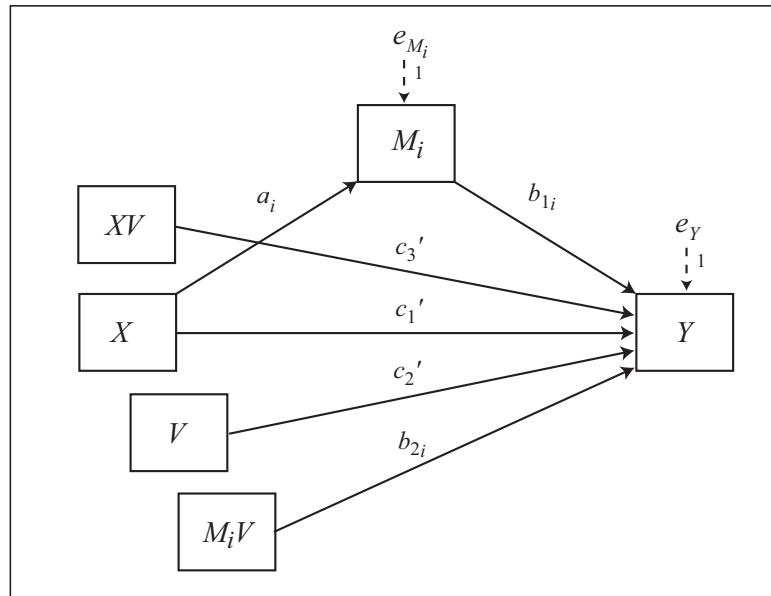
Note: Model 14 allows up to 10 mediators operating in parallel.

## Model 15

Conceptual Diagram



Statistical Diagram



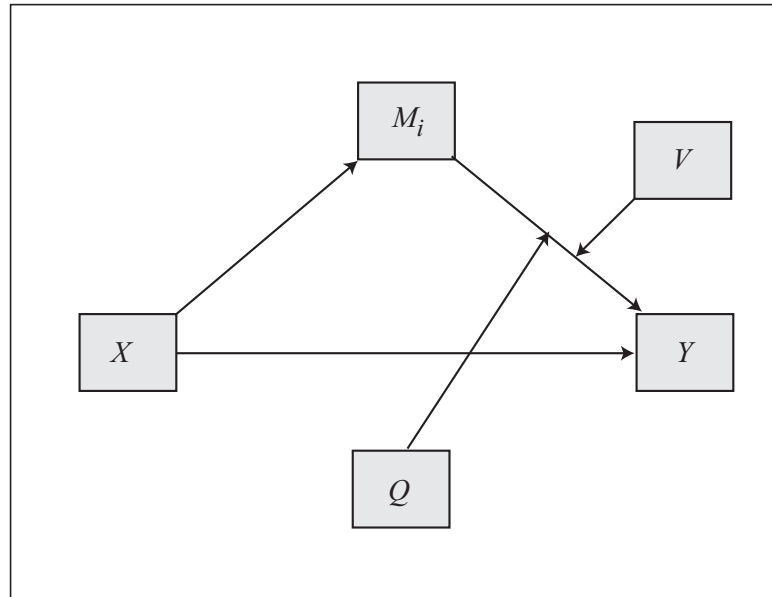
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = a_i (b_{1i} + b_{2i}V)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_3'V$

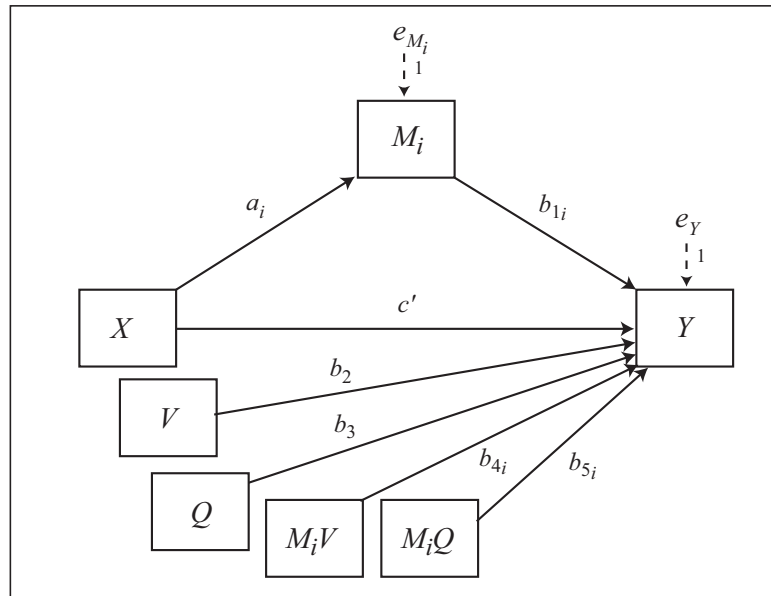
Note: Model 15 allows up to 10 mediators operating in parallel.

## Model 16

Conceptual Diagram



Statistical Diagram



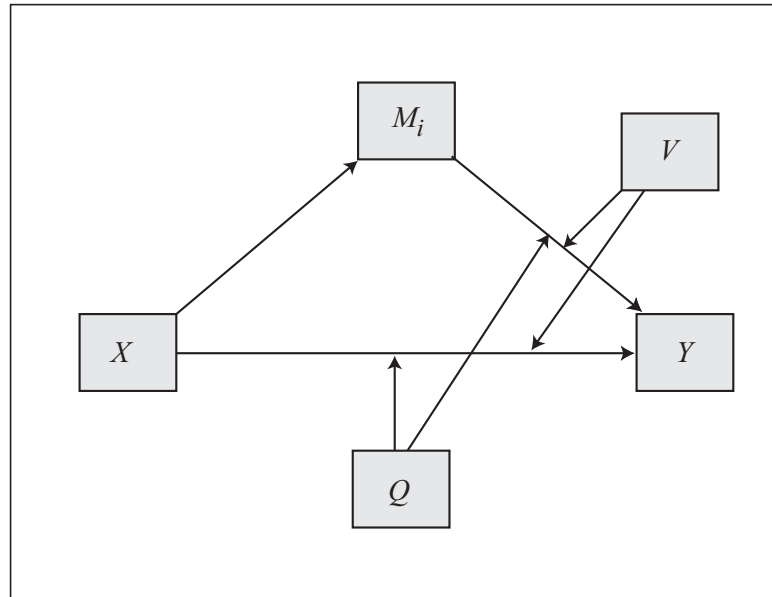
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = a_i (b_{1i} + b_{4i}V + b_{5i}Q)$

Direct effect of  $X$  on  $Y = c'$

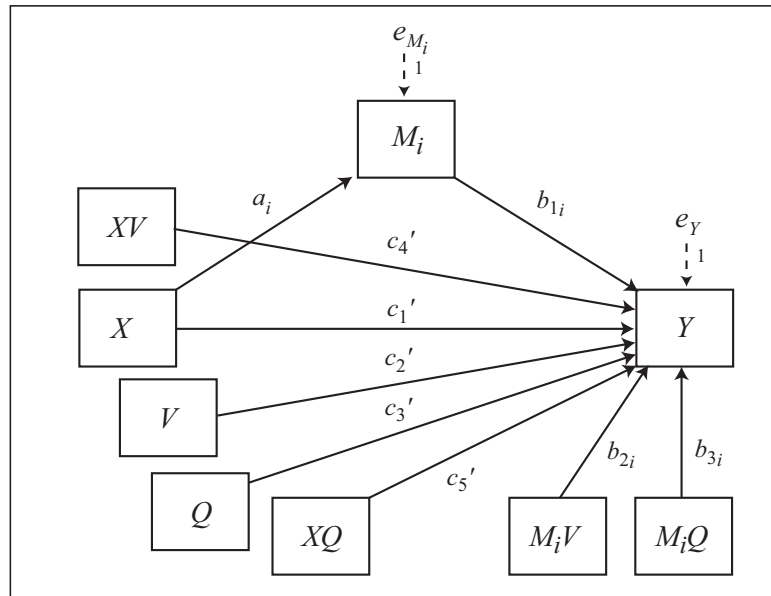
\*Model 16 allows up to 10 mediators operating in parallel

## Model 17

Conceptual Diagram



Statistical Diagram



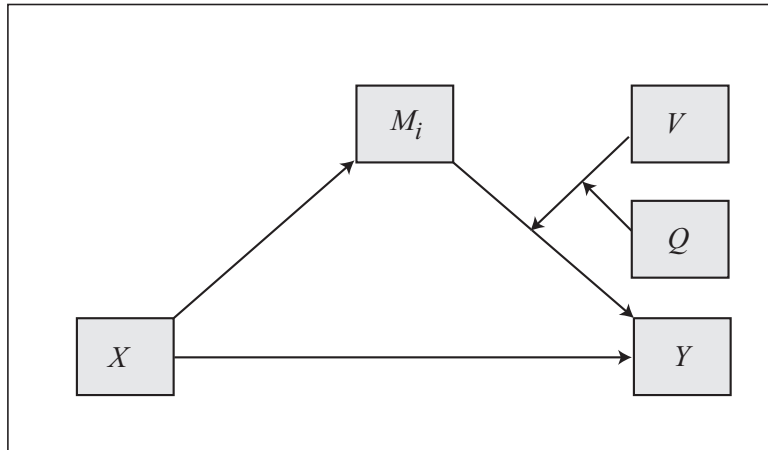
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = a_i (b_{1i} + b_{2i}V + b_{3i}Q)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_4'V + c_5'Q$

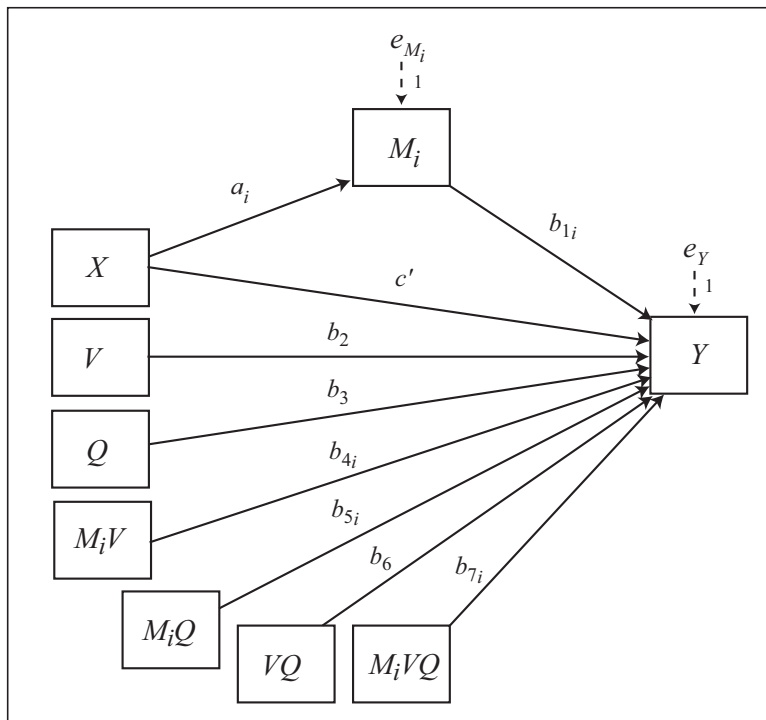
\*Model 17 allows up to 10 mediators operating in parallel

## Model 18

### Conceptual Diagram



### Statistical Diagram



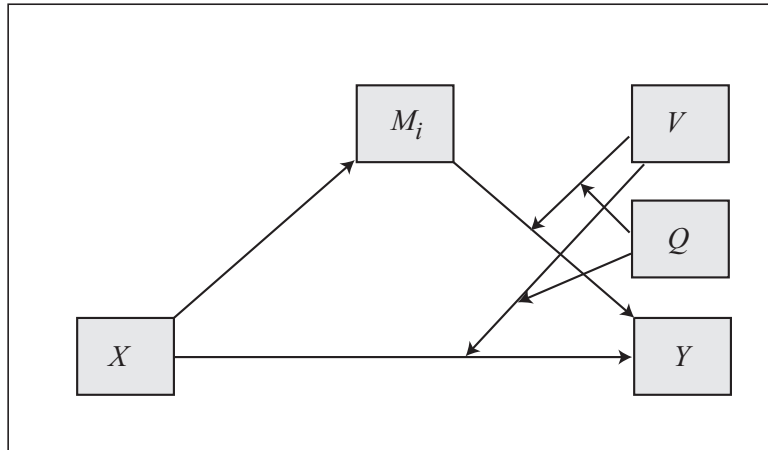
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = a_i(b_{1i} + b_{4i}V + b_{5i}Q + b_{7i}VQ)$

Direct effect of  $X$  on  $Y = c'$

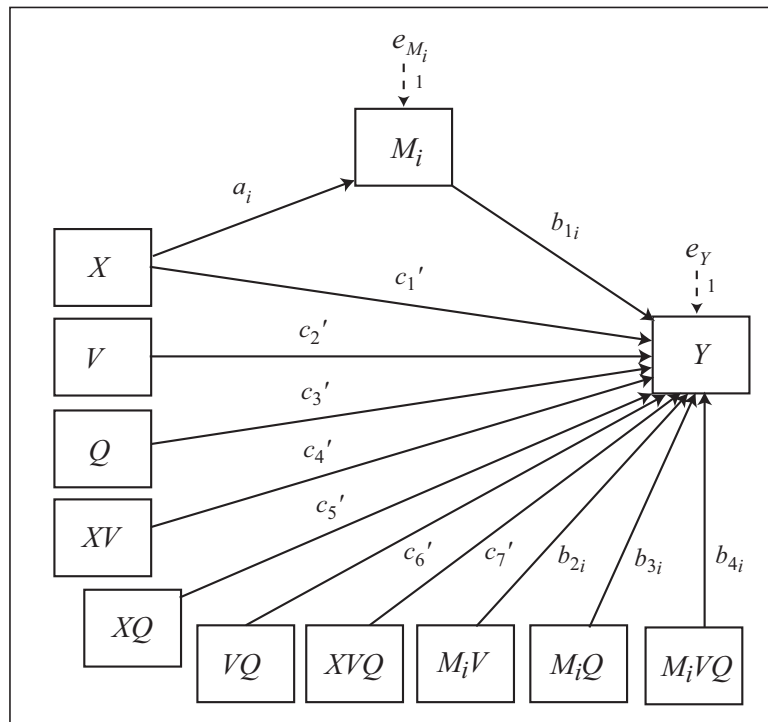
\*Model 18 allows up to 10 mediators operating in parallel

## Model 19

### Conceptual Diagram



### Statistical Diagram



Conditional indirect effect of  $X$  on  $Y$  through  $M_i = a_i(b_{1i} + b_{2i}V + b_{3i}Q + b_{4i}VQ)$

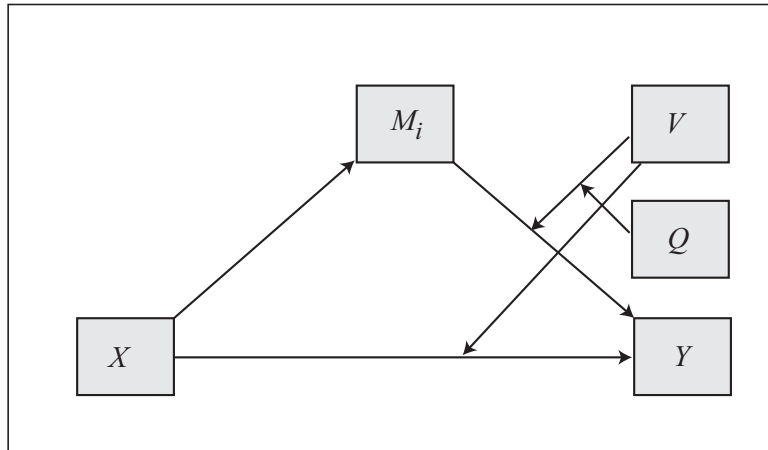
Conditional direct effect of  $X$  on  $Y = c_1' + c_4'V + c_5'Q + c_7'VQ$

\*Model 19 allows up to 10 mediators operating in parallel

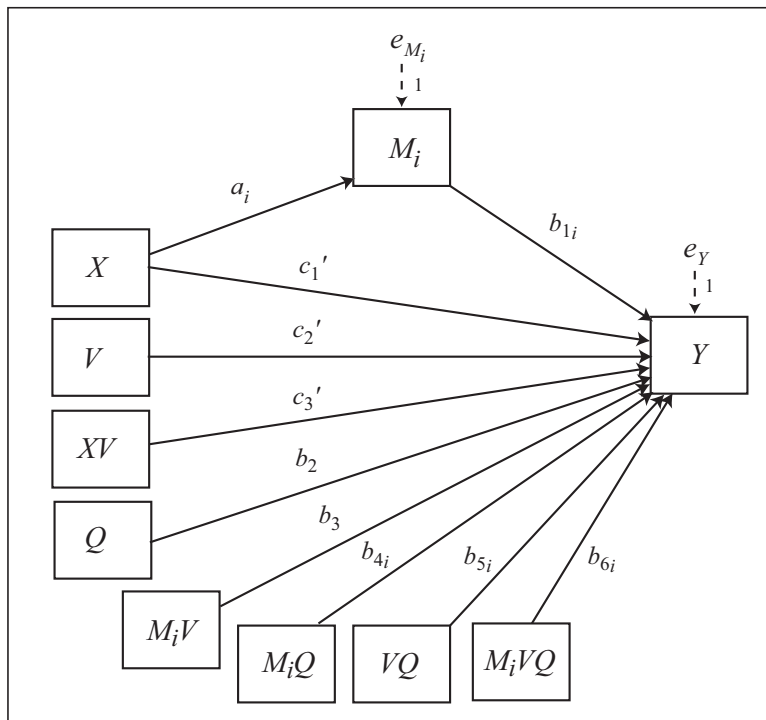


## Model 20

### Conceptual Diagram



### Statistical Diagram



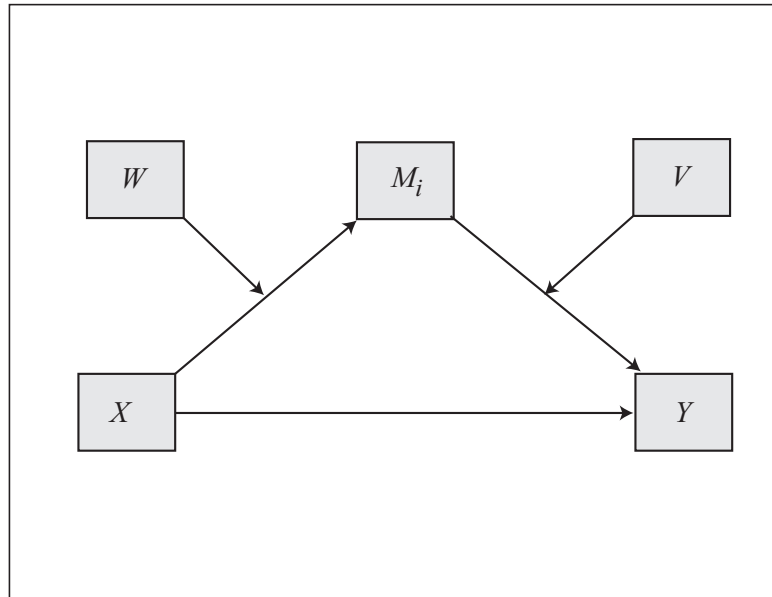
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = a_i(b_{1i} + b_{3i}V + b_{4i}Q + b_{6i}VQ)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_3'V$

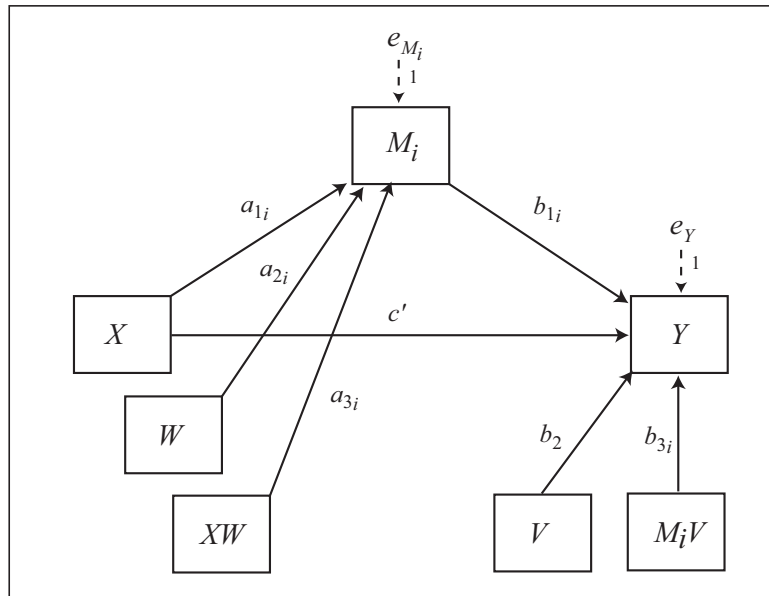
\*Model 20 allows up to 10 mediators operating in parallel

## Model 21

### Conceptual Diagram



### Statistical Diagram



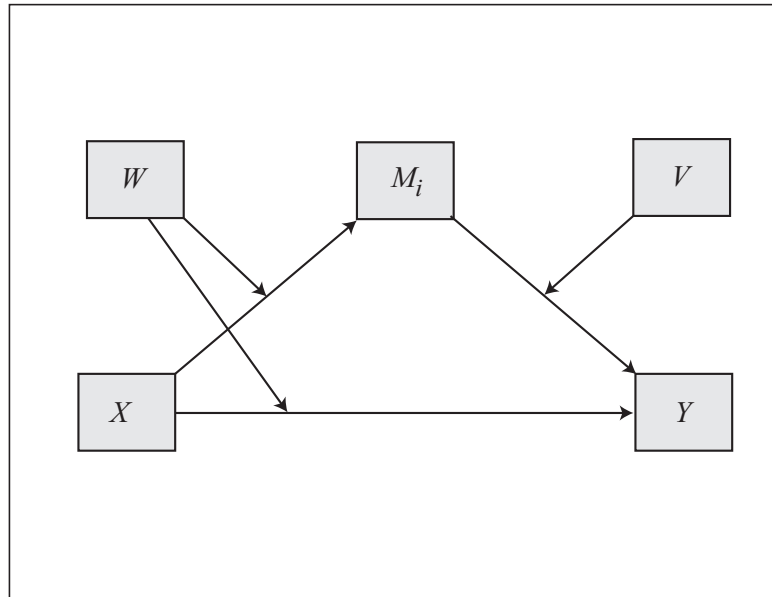
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{3i}V)$

Direct effect of  $X$  on  $Y = c'$

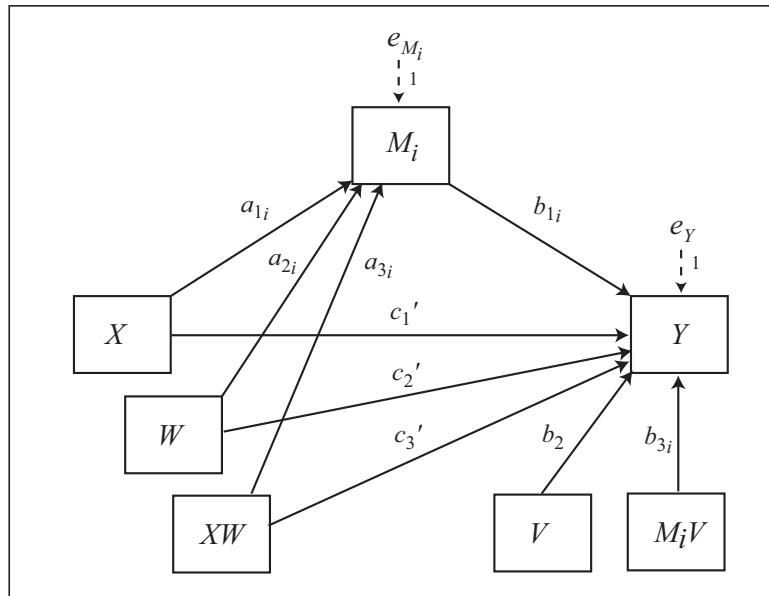
Note: Model 21 allows up to 10 mediators operating in parallel.

## Model 22

### Conceptual Diagram



### Statistical Diagram



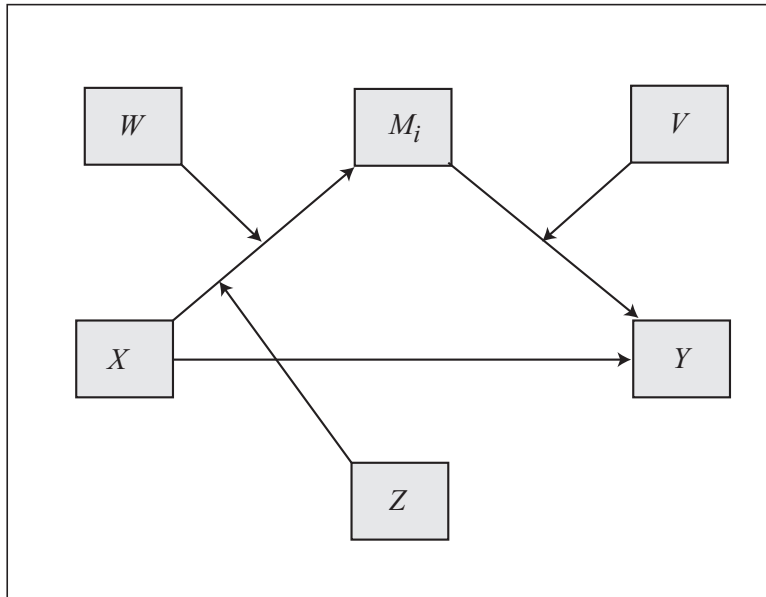
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{3i}V)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_3'W$

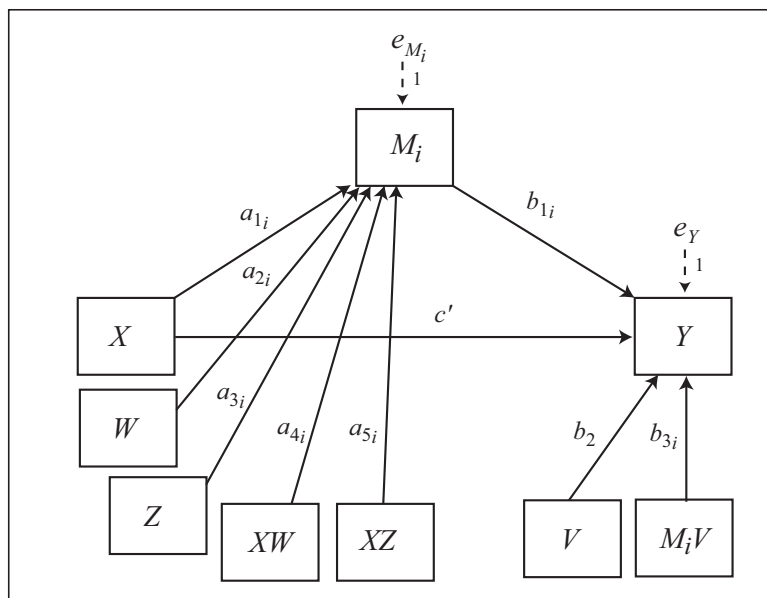
Note: Model 22 allows up to 10 mediators operating in parallel.

## Model 23

Conceptual Diagram



Statistical Diagram



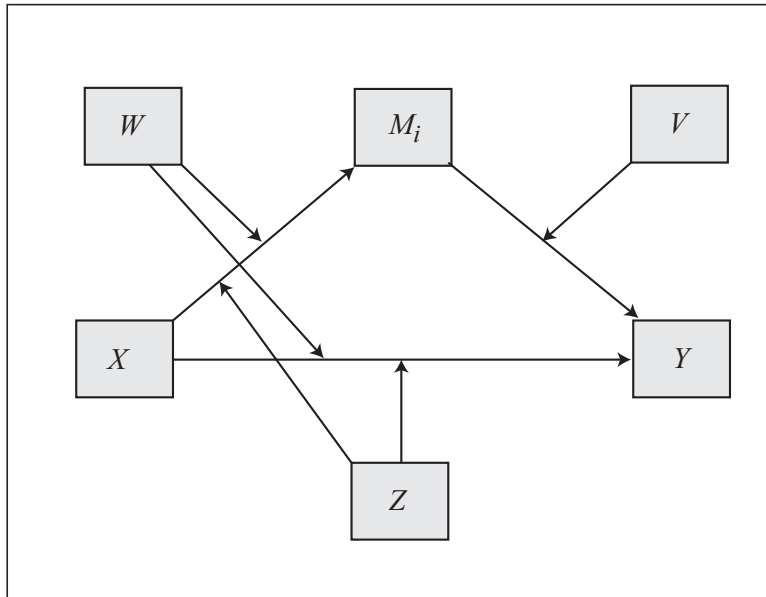
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z)(b_{1i} + b_{3i}V)$

Direct effect of  $X$  on  $Y = c'$

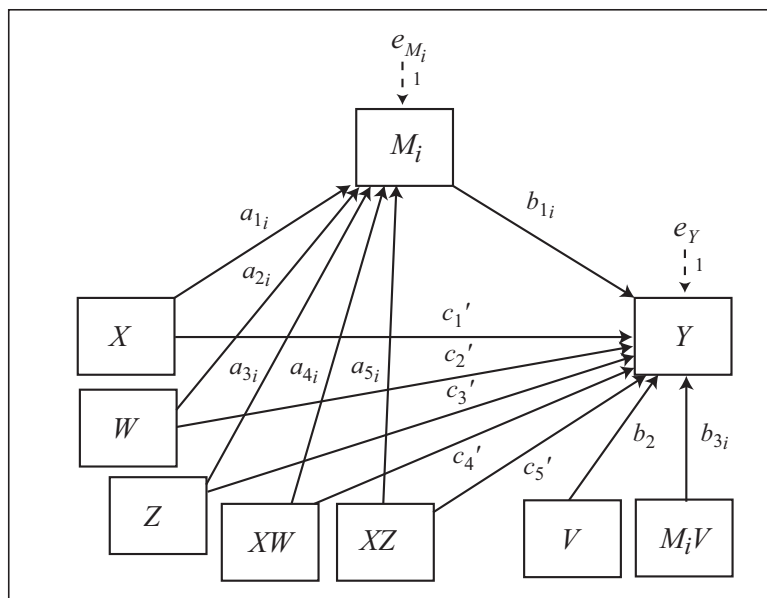
\*Model 23 allows up to 10 mediators operating in parallel

## Model 24

Conceptual Diagram



Statistical Diagram



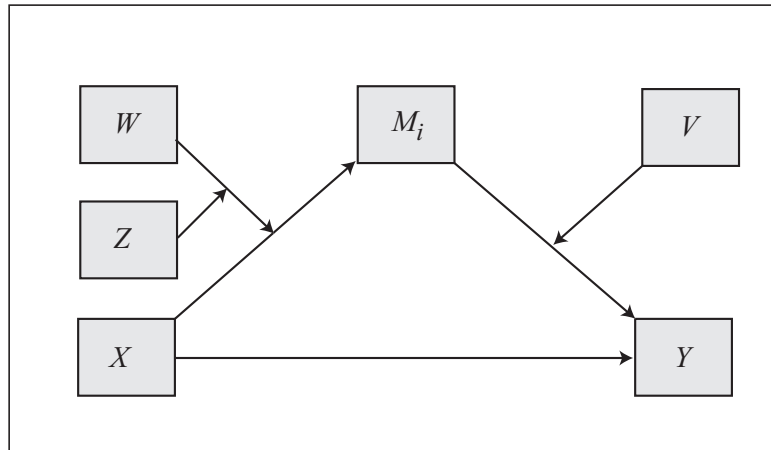
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z)(b_{1i} + b_{3i}V)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_4'W + c_5'Z$

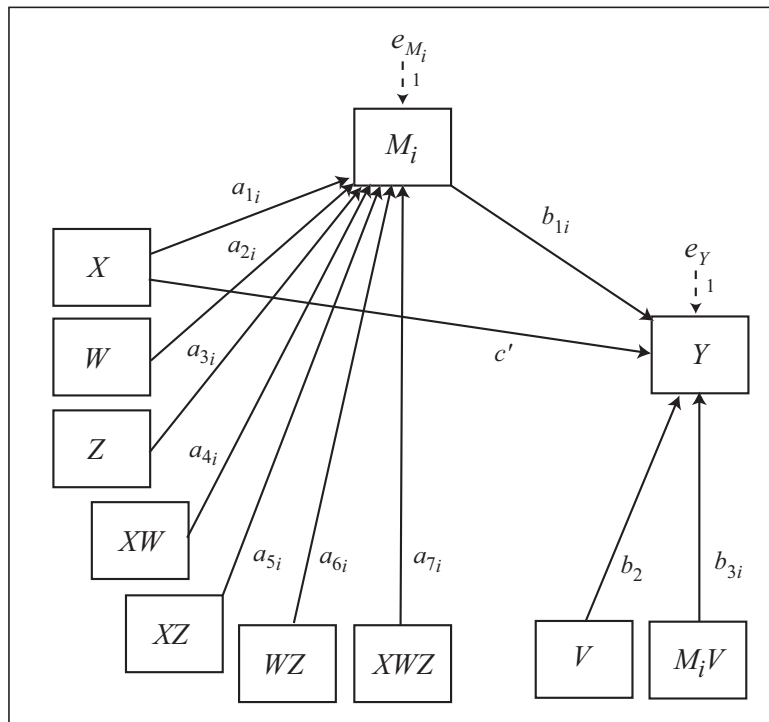
\*Model 24 allows up to 10 mediators operating in parallel

## Model 25

### Conceptual Diagram



### Statistical Diagram



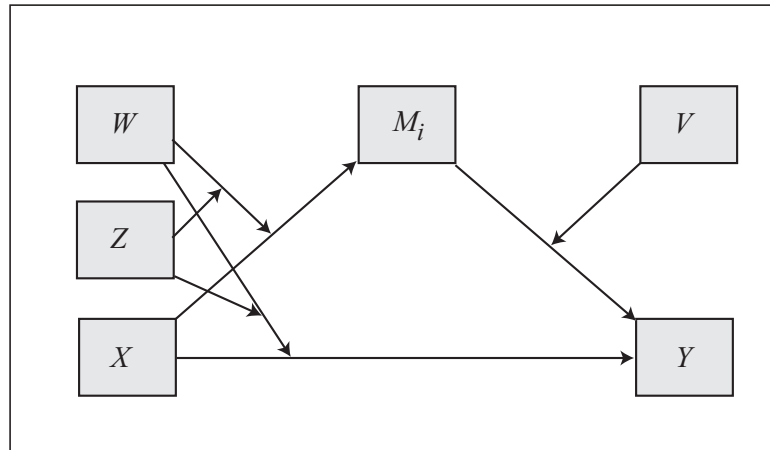
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z + a_{7i}WZ)(b_{1i} + b_{3i}V)$

Direct effect of  $X$  on  $Y = c'$

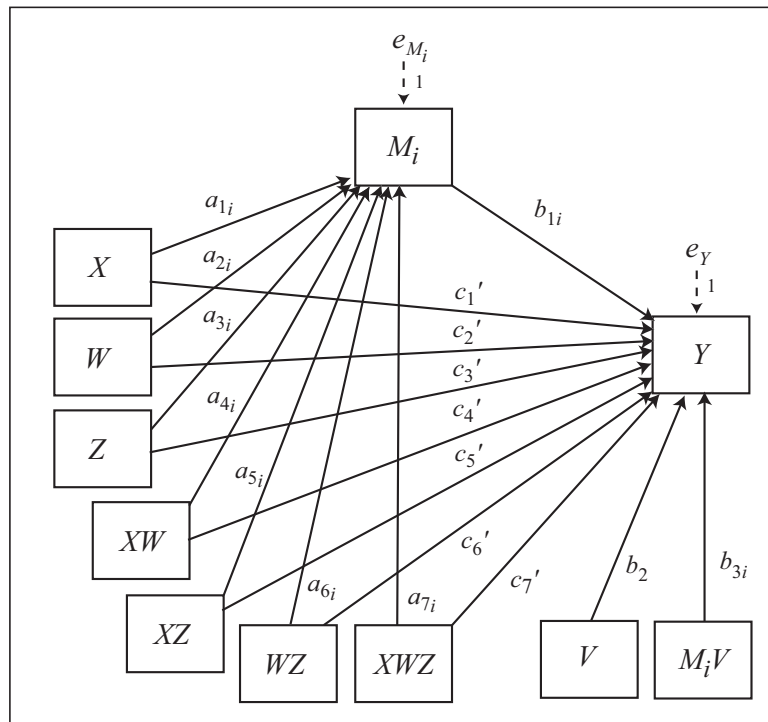
\*Model 25 allows up to 10 mediators operating in parallel

## Model 26

### Conceptual Diagram



### Statistical Diagram



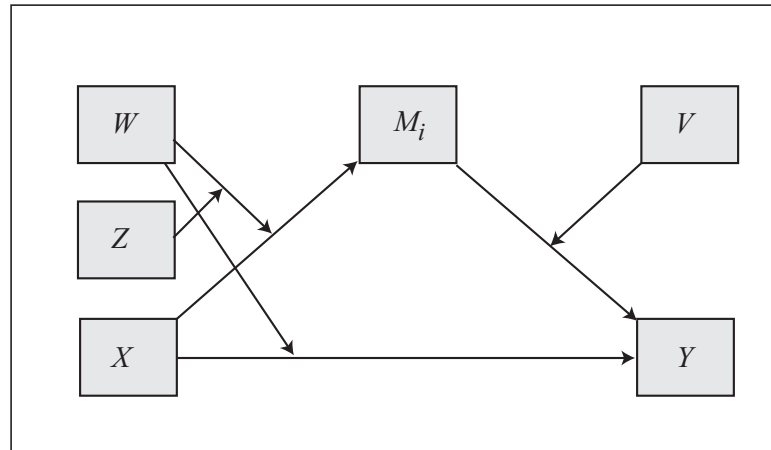
Conditional indirect effect of X on Y through M<sub>i</sub> = (a<sub>1i</sub> + a<sub>4i</sub>W + a<sub>5i</sub>Z + a<sub>7i</sub>WZ)(b<sub>1i</sub> + b<sub>3i</sub>V)

Conditional direct effect of X on Y = c<sub>1'</sub> + c<sub>4'</sub>W + c<sub>5'</sub>Z + c<sub>7'</sub>WZ

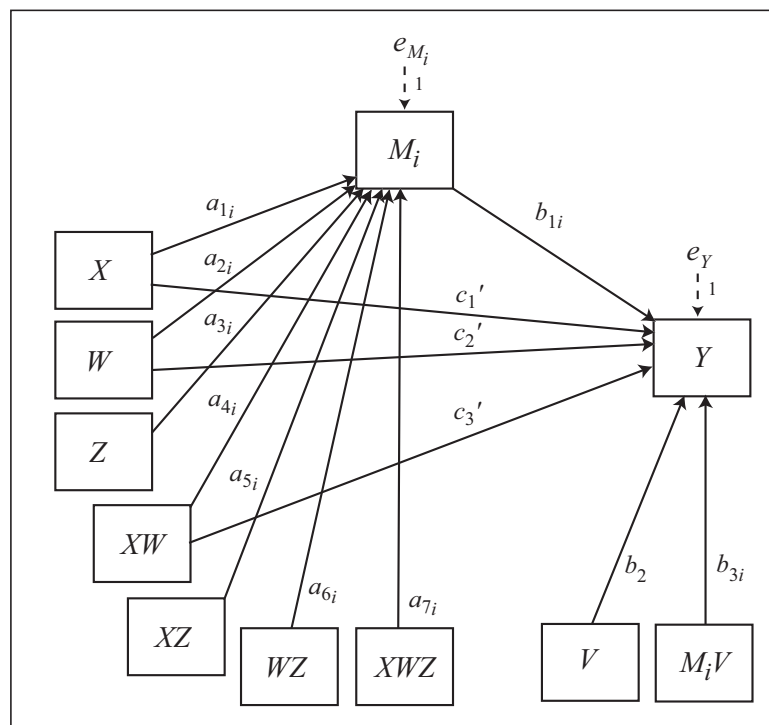
\*Model 26 allows up to 10 mediators operating in parallel

## Model 27

### Conceptual Diagram



### Statistical Diagram



Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z + a_{7i}WZ)(b_{1i} + b_{3i}V)$

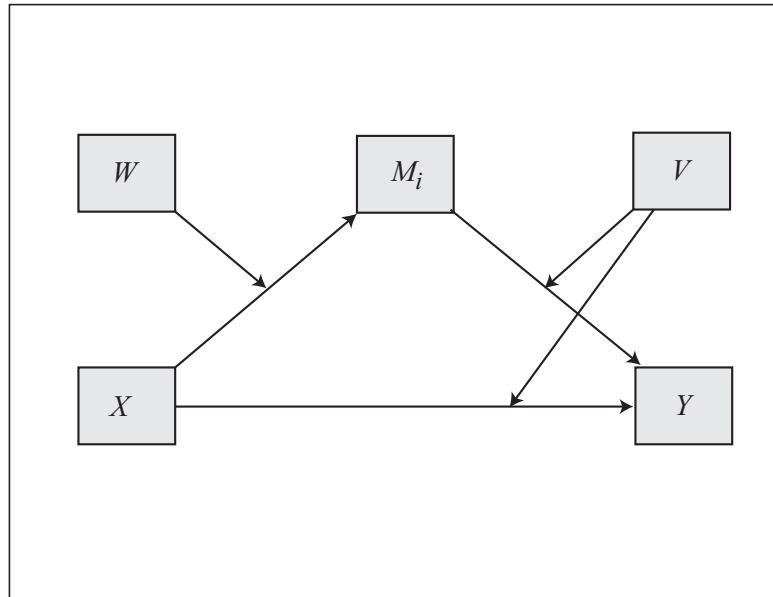
Conditional direct effect of  $X$  on  $Y = c_1' + c_3'W$

\*Model 27 allows up to 10 mediators operating in parallel

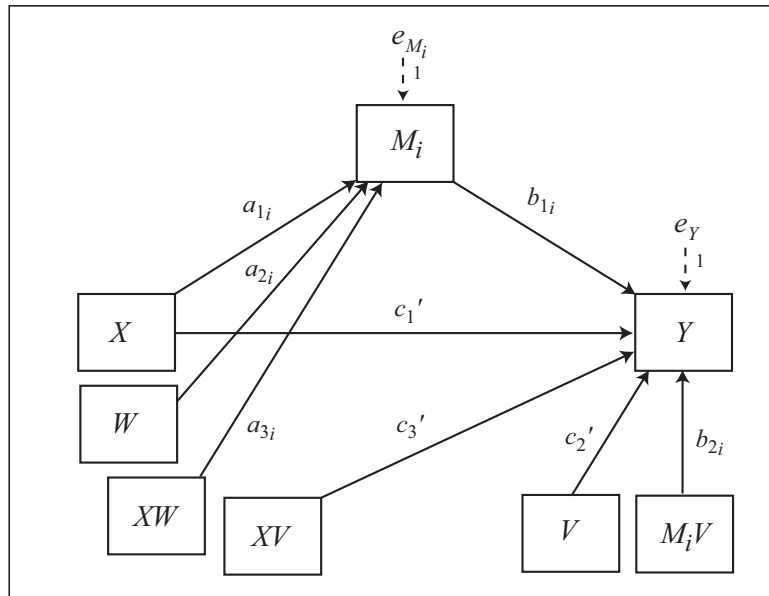


## Model 28

Conceptual Diagram



Statistical Diagram



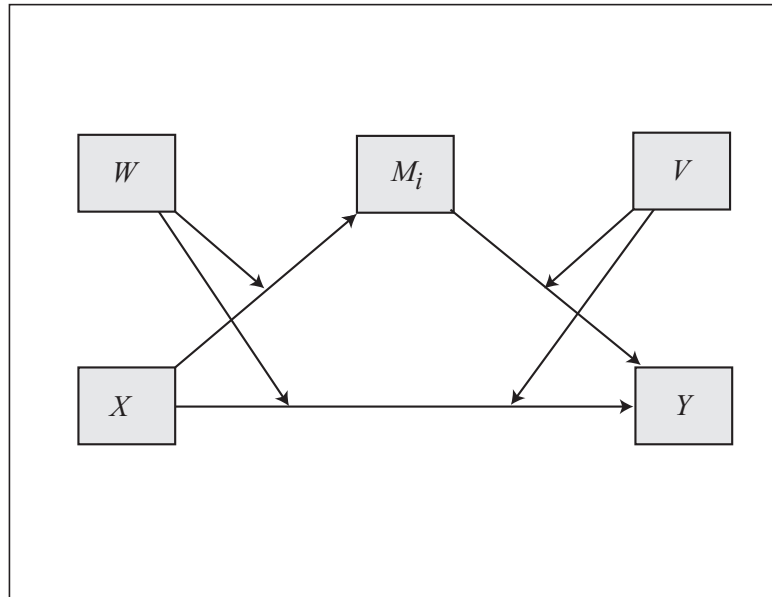
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{2i}V)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_3'V$

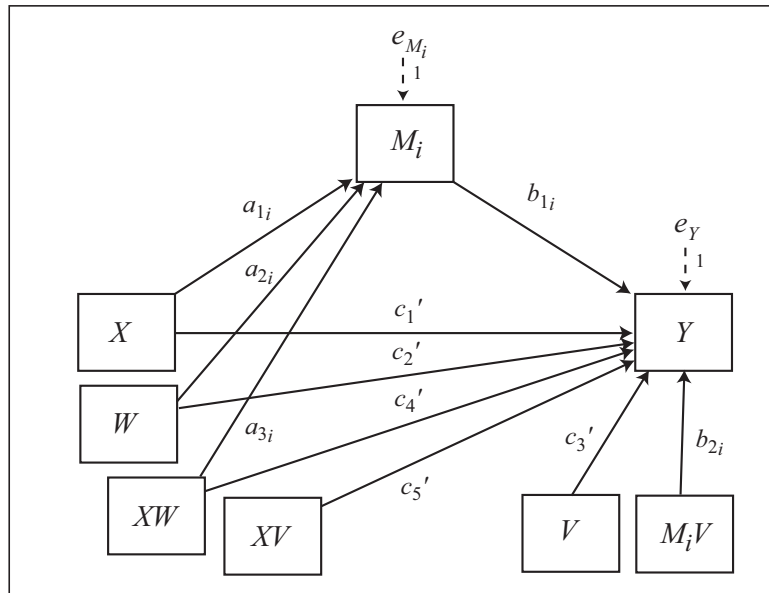
\*Model 28 allows up to 10 mediators operating in parallel

## Model 29

### Conceptual Diagram



### Statistical Diagram



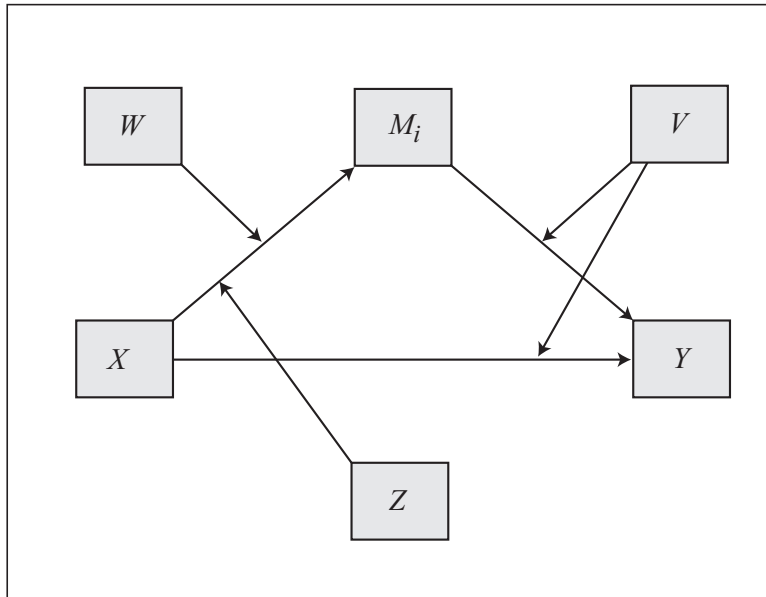
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{2i}V)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_4'W + c_5'V$

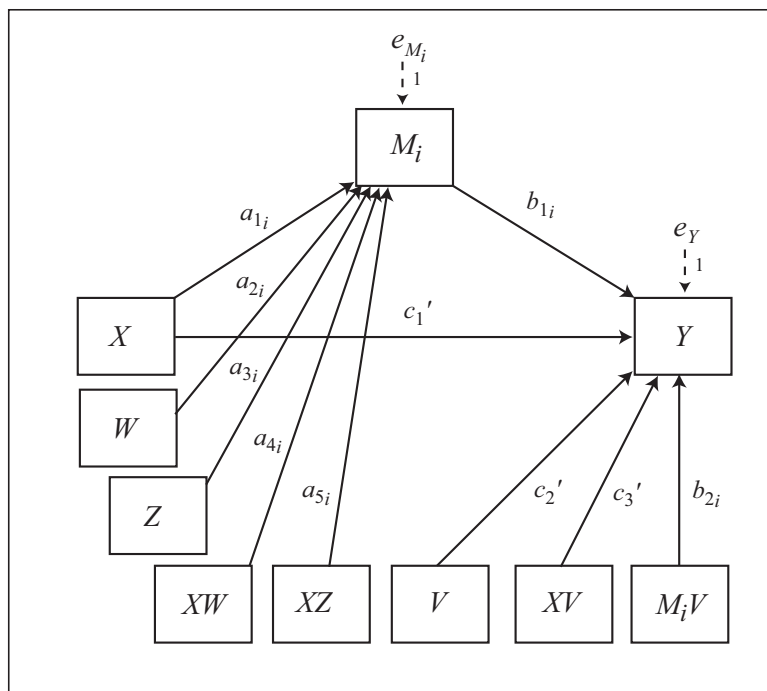
\*Model 29 allows up to 10 mediators operating in parallel

### Model 30

Conceptual Diagram



Statistical Diagram

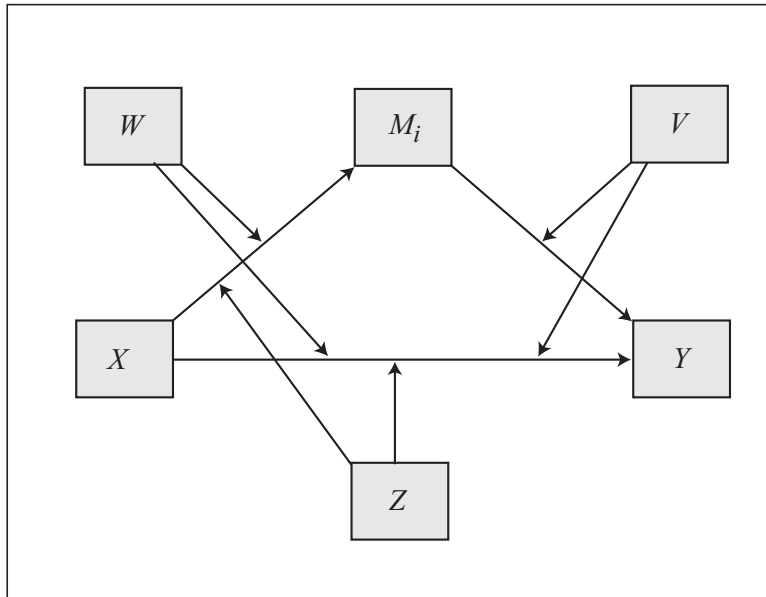


Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z)(b_{1i} + b_{2i}V)$   
 Conditional direct effect of  $X$  on  $Y = c_1' + c_3'V$

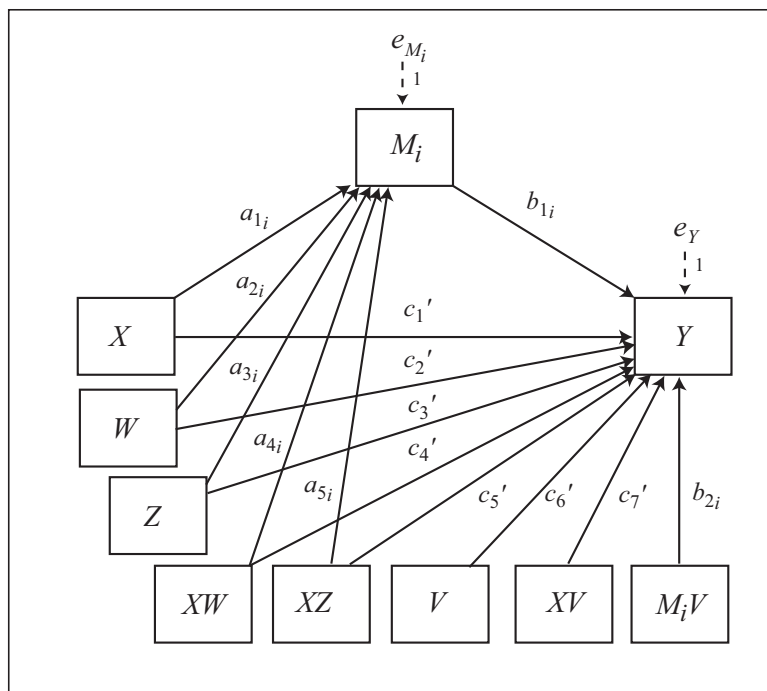
\*Model 30 allows up to 10 mediators operating in parallel

### Model 31

Conceptual Diagram



Statistical Diagram

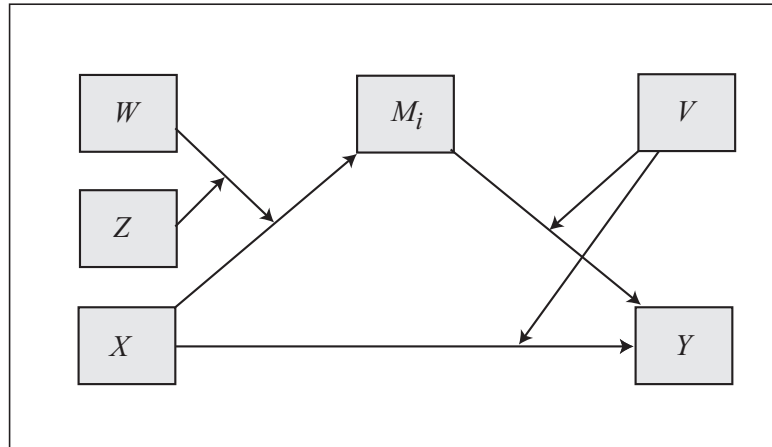


Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z)(b_{1i} + b_{2i}V)$   
 Conditional direct effect of  $X$  on  $Y = c_1' + c_4'W + c_5'Z + c_7'V$

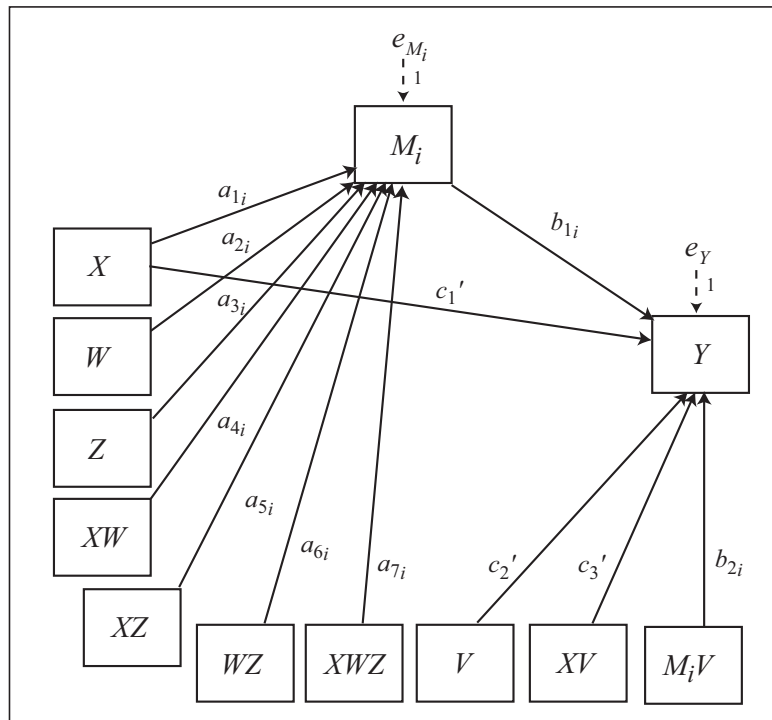
\*Model 31 allows up to 10 mediators operating in parallel

## Model 32

### Conceptual Diagram



### Statistical Diagram



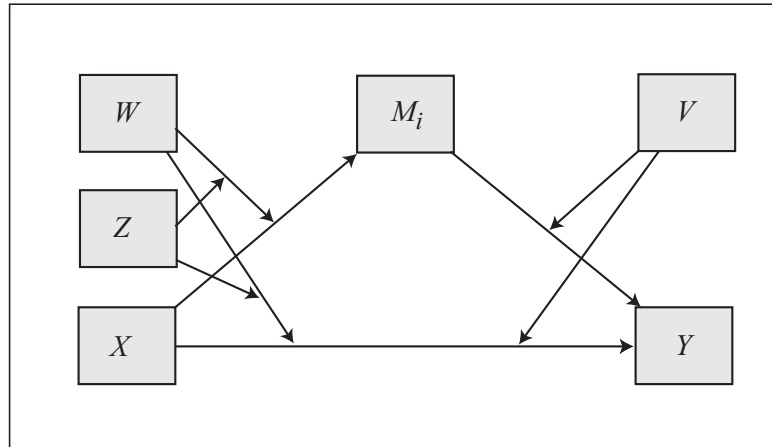
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z + a_{7i}WZ)(b_{1i} + b_{2i}V)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_3'V$

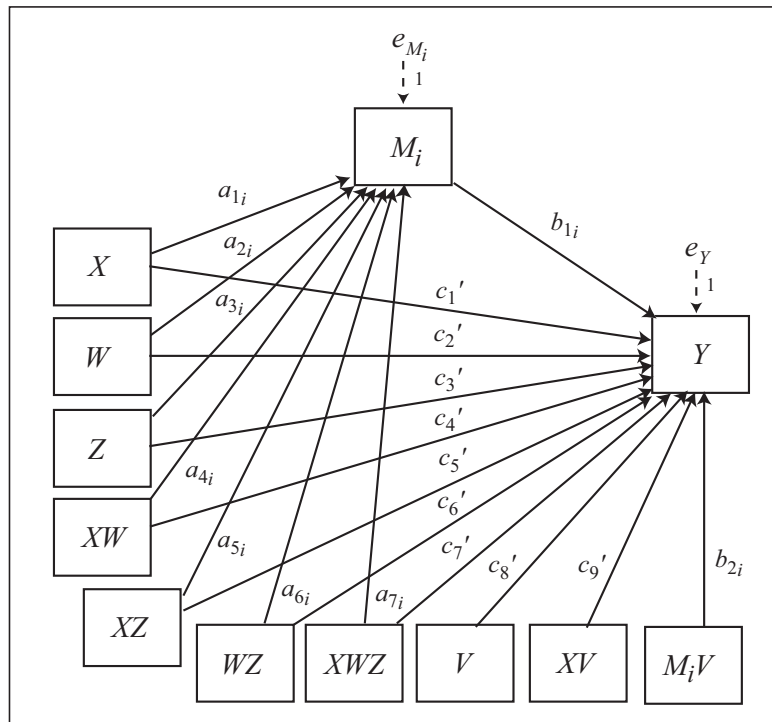
\*Model 32 allows up to 10 mediators operating in parallel

### Model 33

Conceptual Diagram



Statistical Diagram



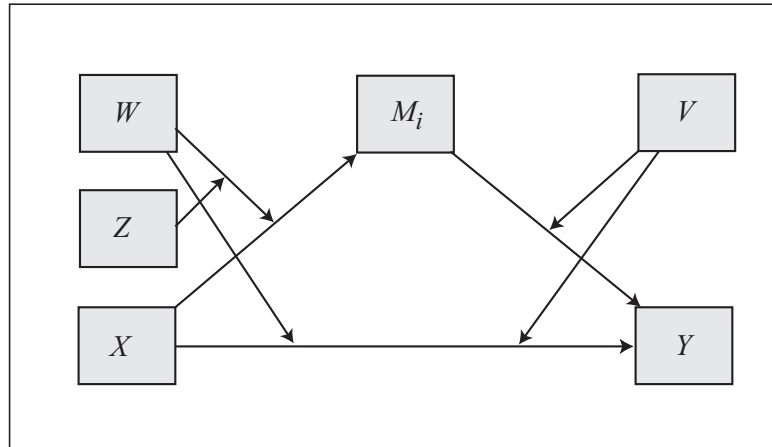
Conditional indirect effect of X on Y through M<sub>i</sub> = (a<sub>1i</sub> + a<sub>4i</sub>W + a<sub>5i</sub>Z + a<sub>7i</sub>WZ)(b<sub>1i</sub> + b<sub>2i</sub>V)

Conditional direct effect of X on Y = c<sub>1'</sub> + c<sub>4'</sub>W + c<sub>5'</sub>Z + c<sub>7'</sub>WZ + c<sub>9'</sub>V

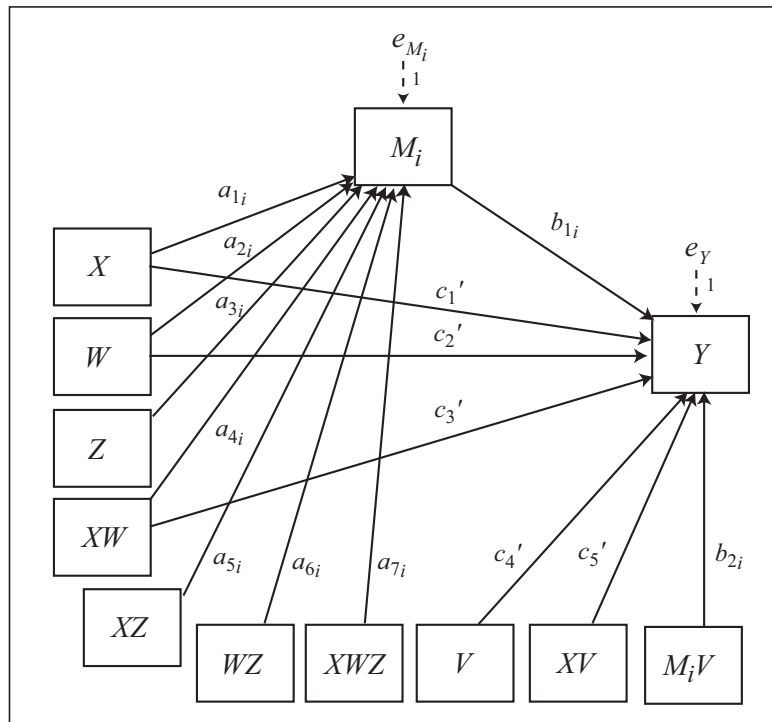
\*Model 33 allows up to 10 mediators operating in parallel

### Model 34

Conceptual Diagram



Statistical Diagram



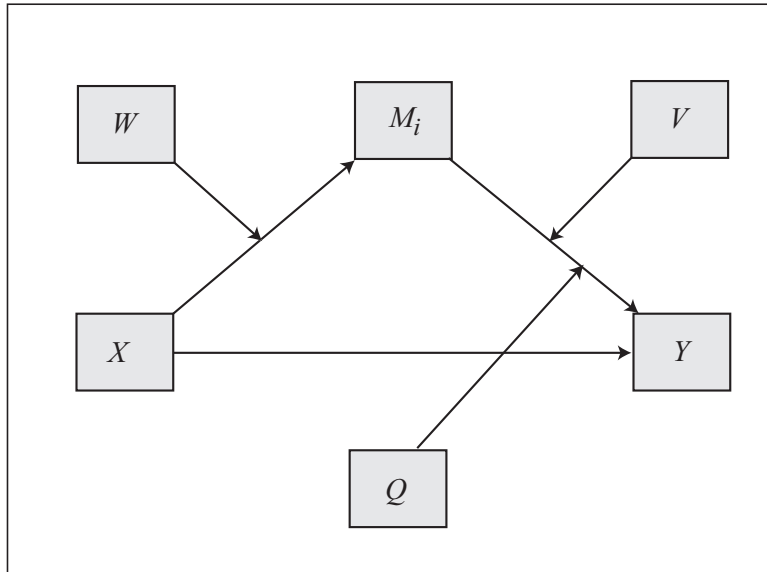
Conditional indirect effect of X on Y through M<sub>i</sub> = (a<sub>1i</sub> + a<sub>4i</sub>W + a<sub>5i</sub>Z + a<sub>7i</sub>WZ)(b<sub>1i</sub> + b<sub>2i</sub>V)

Conditional direct effect of X on Y = c<sub>1'</sub> + c<sub>3'</sub>W + c<sub>5'</sub>V

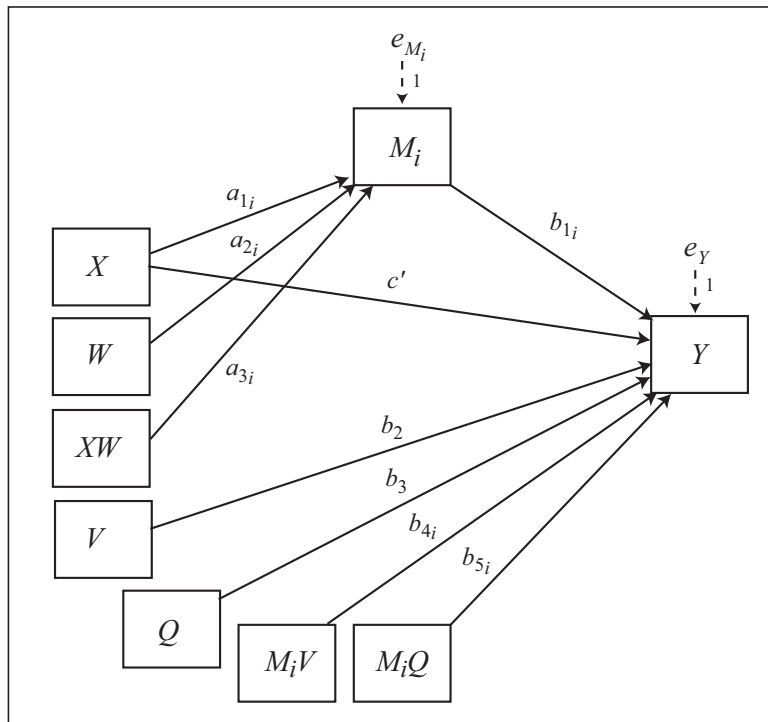
\*Model 34 allows up to 10 mediators operating in parallel

### Model 35

Conceptual Diagram



Statistical Diagram



Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{4i}V + b_{5i}Q)$

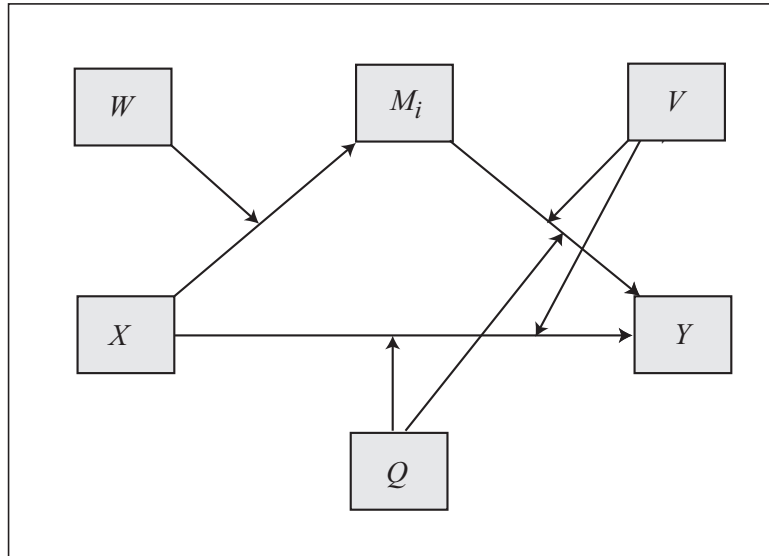
Direct effect of  $X$  on  $Y = c'$

\*Model 35 allows up to 10 mediators operating in parallel

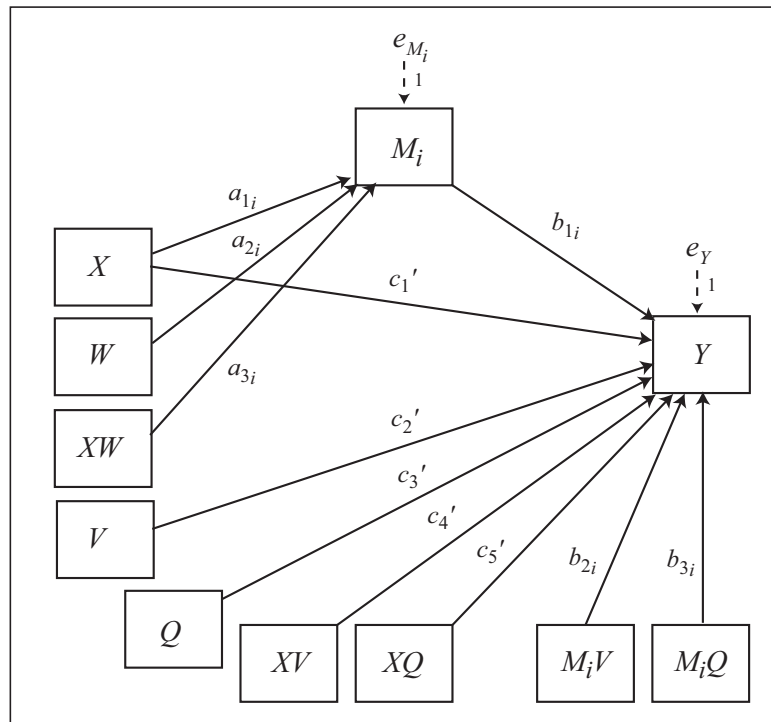


### Model 36

Conceptual Diagram



Statistical Diagram



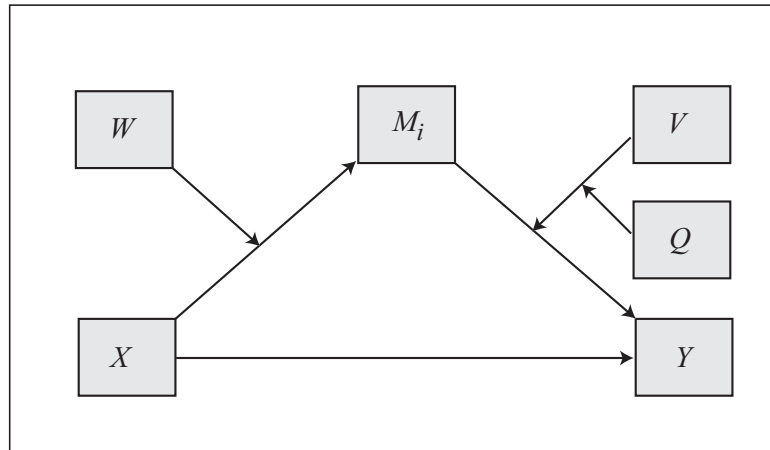
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{2i}V + b_{3i}Q)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_4'V + c_5'Q$

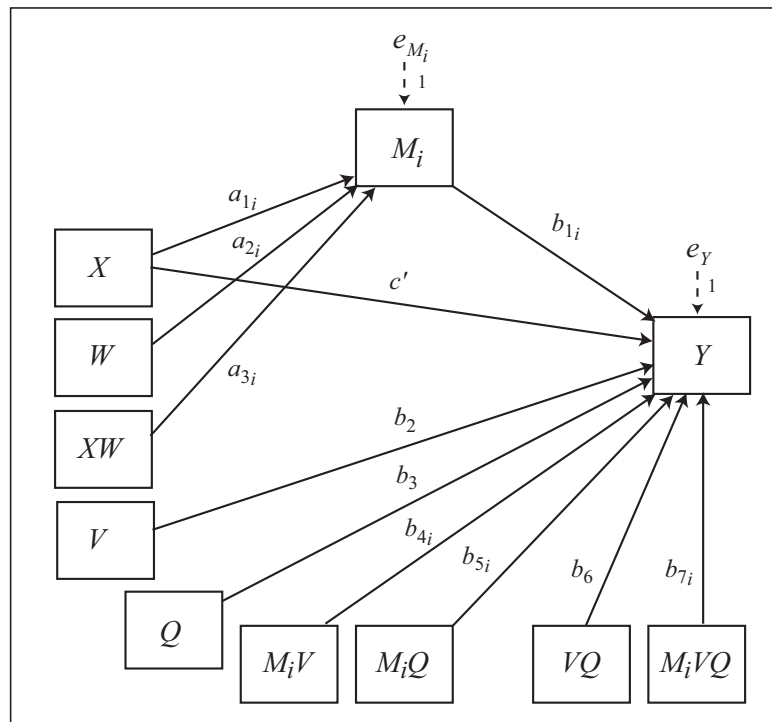
\*Model 36 allows up to 10 mediators operating in parallel

### Model 37

#### Conceptual Diagram



#### Statistical Diagram



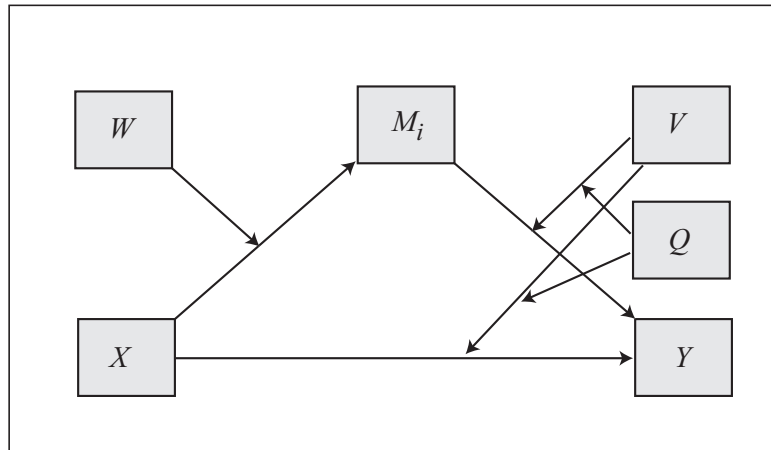
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{4i}V + b_{5i}Q + b_{7i}VQ)$

Direct effect of  $X$  on  $Y = c'$

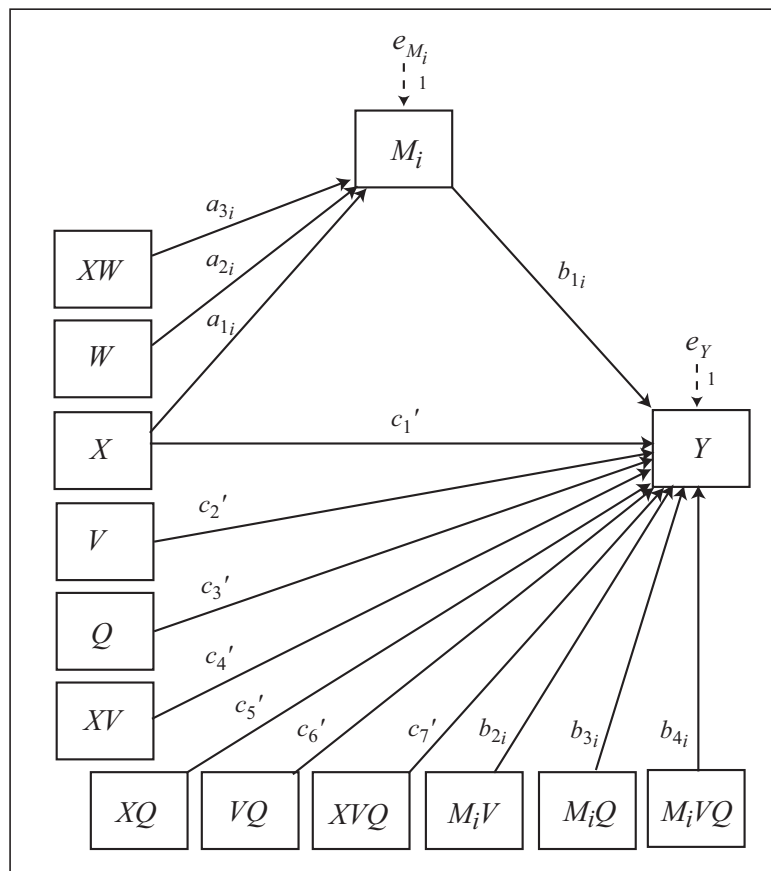
\*Model 37 allows up to 10 mediators operating in parallel

## Model 38

### Conceptual Diagram



### Statistical Diagram



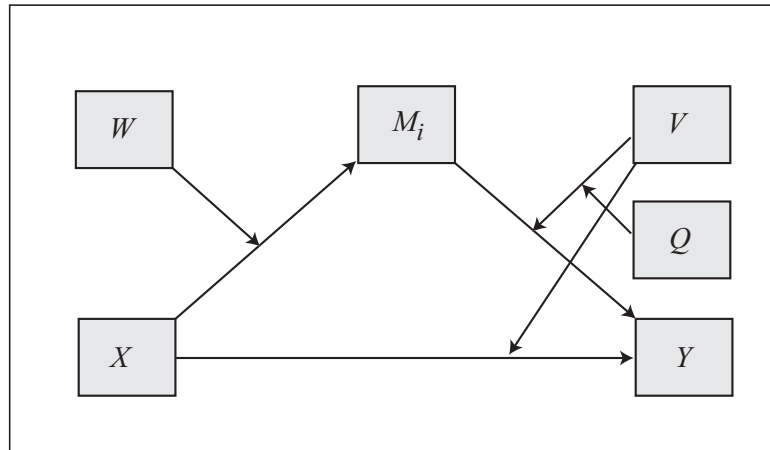
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{2i}V + b_{3i}Q + b_{4i}VQ)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_4'V + c_5'Q + c_7'VQ$

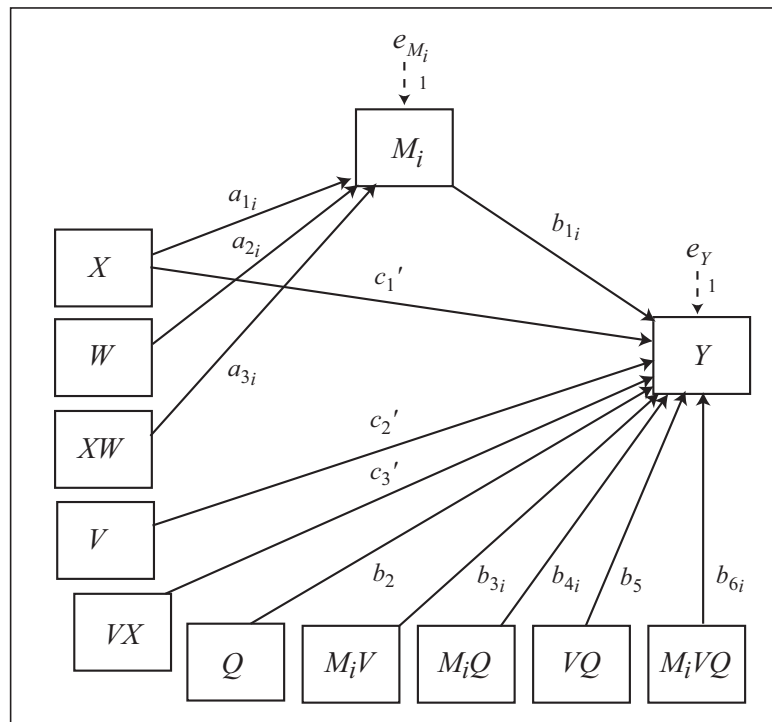
\*Model 38 allows up to 10 mediators operating in parallel

### Model 39

#### Conceptual Diagram



#### Statistical Diagram



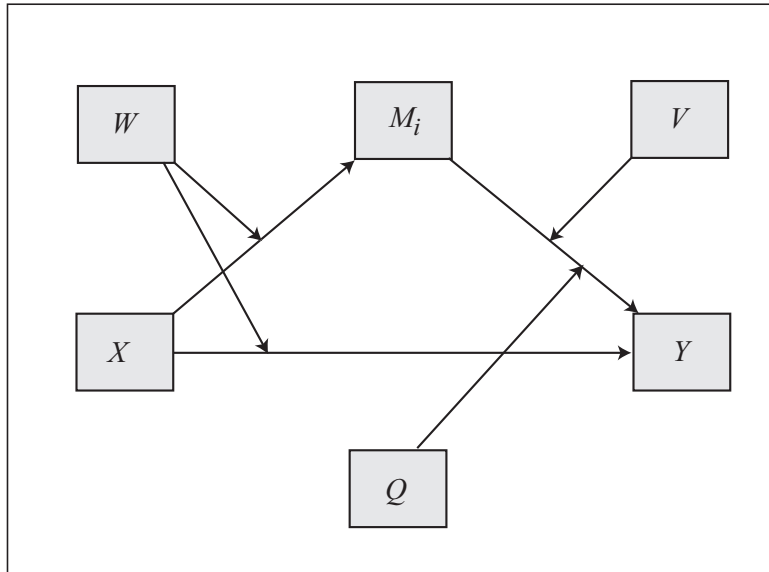
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{3i}V + b_{4i}Q + b_{6i}VQ)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_3'V$

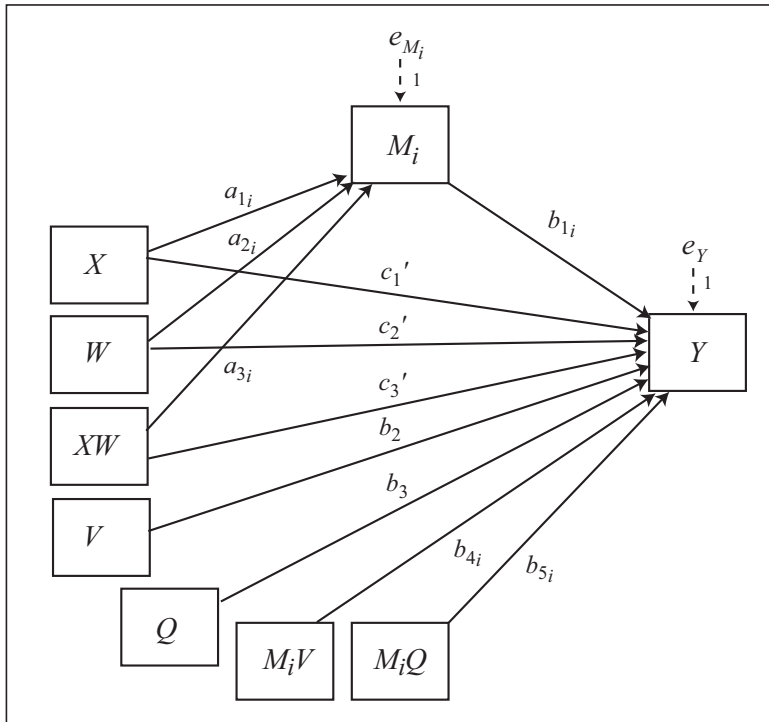
\*Model 39 allows up to 10 mediators operating in parallel

## Model 40

### Conceptual Diagram



### Statistical Diagram



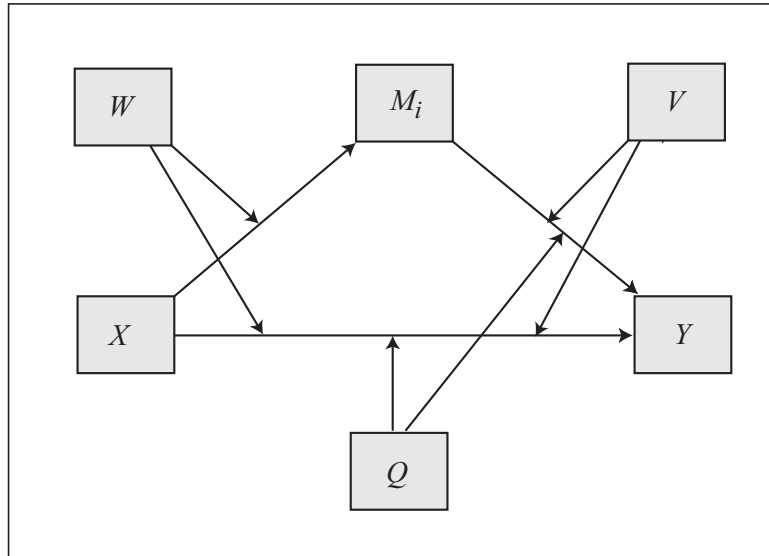
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{4i}V + b_{5i}Q)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_3'W$

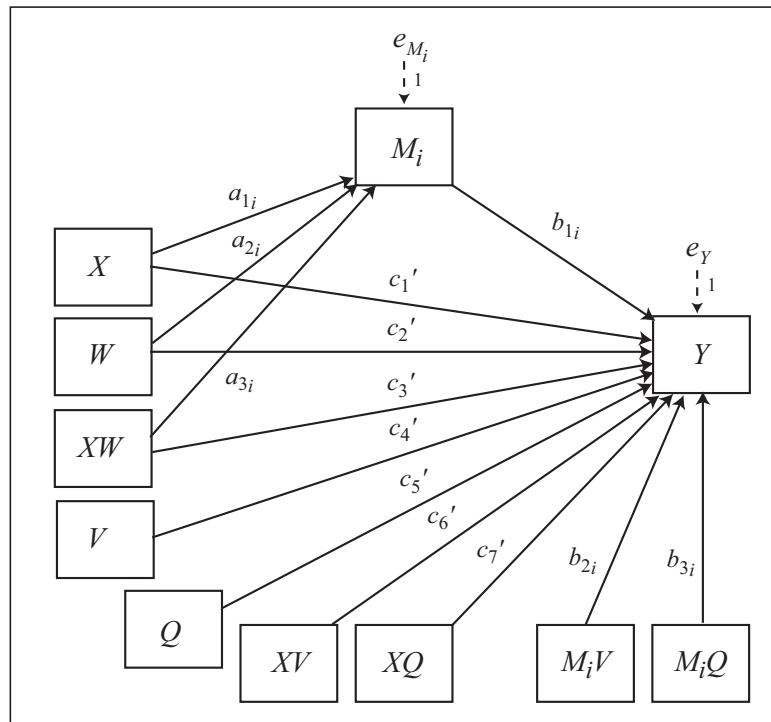
\*Model 40 allows up to 10 mediators operating in parallel

## Model 41

### Conceptual Diagram



### Statistical Diagram



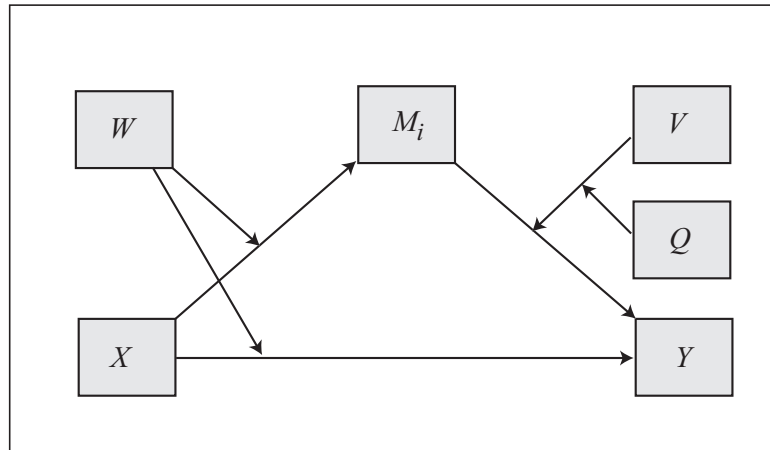
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{2i}V + b_{3i}Q)$

Conditional direct effect of  $X$  on  $Y = c_{1i}' + c_{3i}'W + c_{6i}'V + c_{7i}'Q$

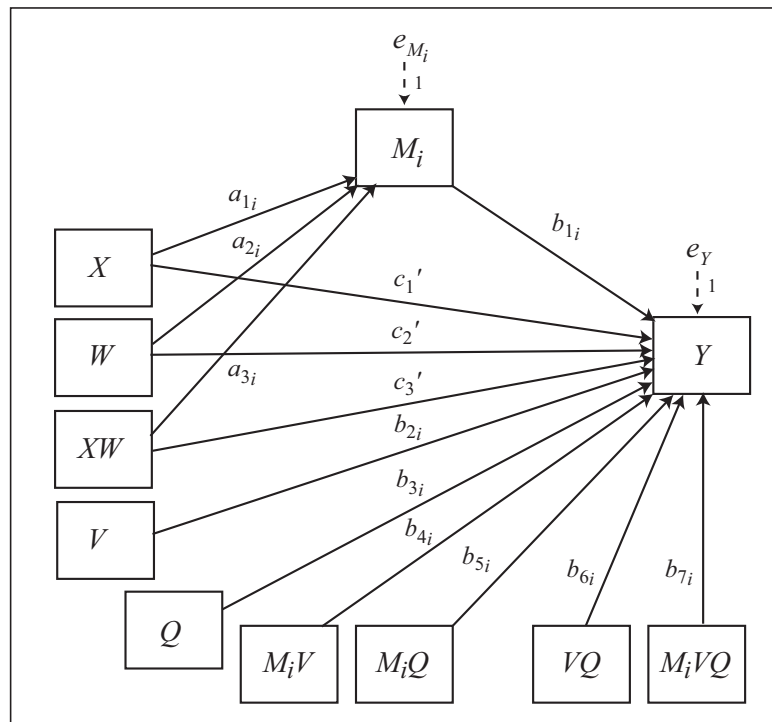
\*Model 41 allows up to 10 mediators operating in parallel

## Model 42

### Conceptual Diagram



### Statistical Diagram



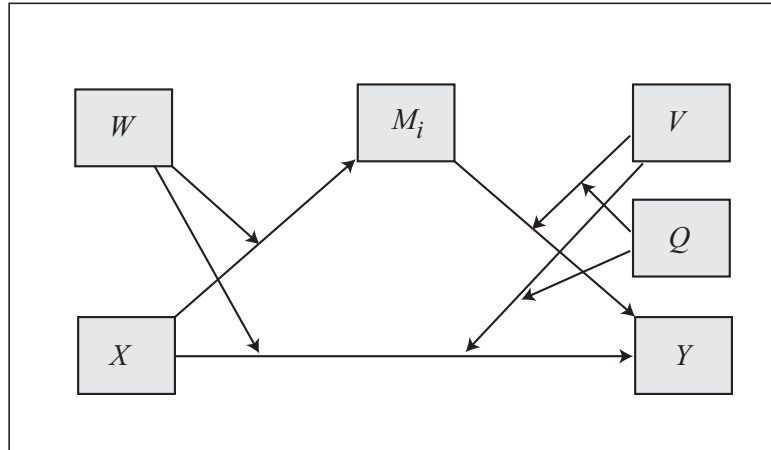
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{4i}V + b_{5i}Q + b_{7i}VQ)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_3'W$

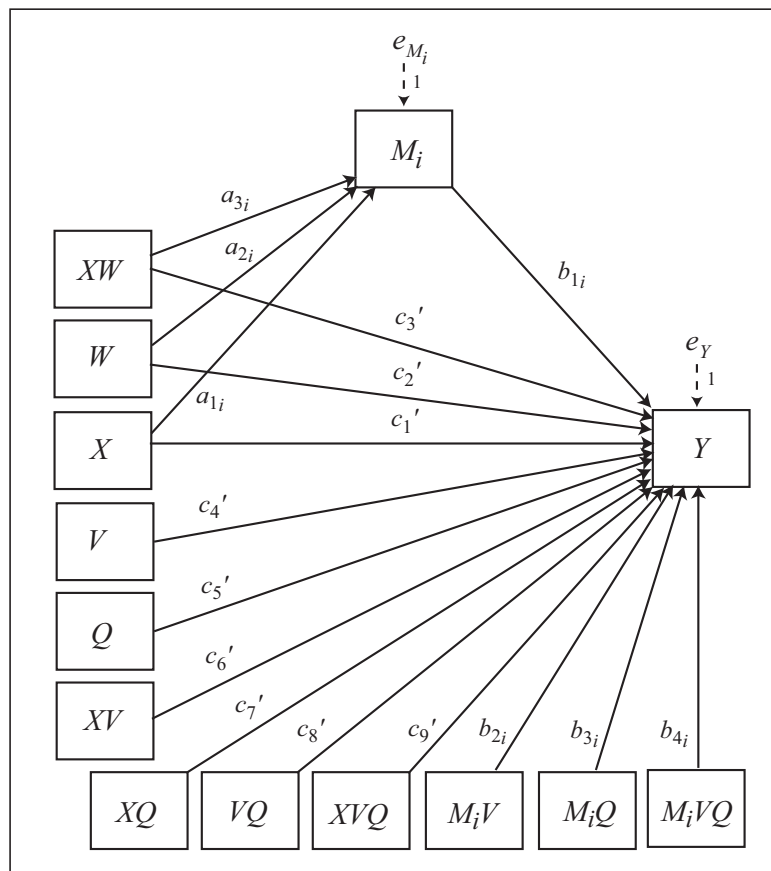
\*Model 42 allows up to 10 mediators operating in parallel

### Model 43

#### Conceptual Diagram



#### Statistical Diagram



Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{2i}V + b_{3i}Q + b_{4i}VQ)$

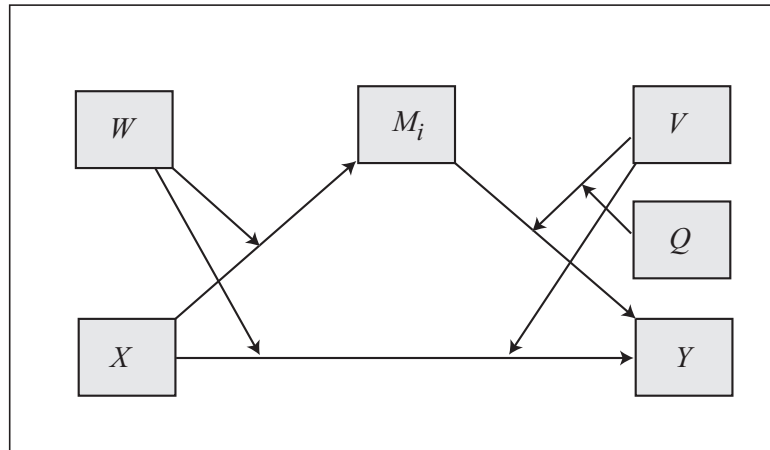
Conditional direct effect of  $X$  on  $Y = c_{1'} + c_{3'}W + c_{6'}V + c_{7'}Q + c_{9'}VQ$

\*Model 43 allows up to 10 mediators operating in parallel

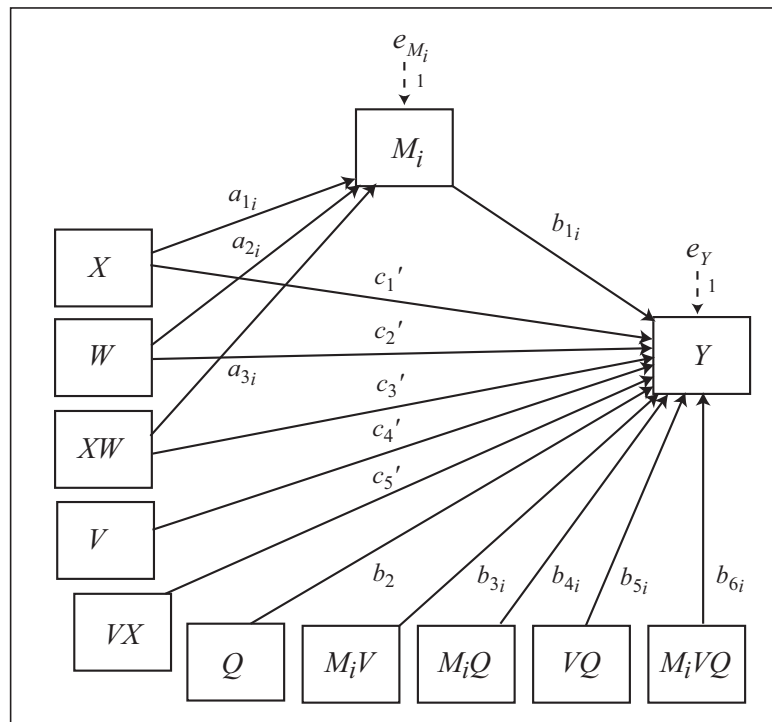


## Model 44

### Conceptual Diagram



### Statistical Diagram



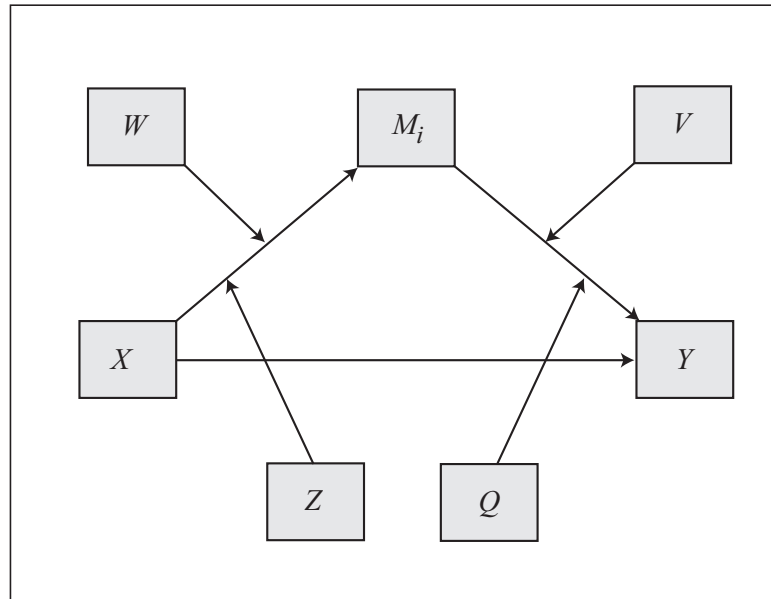
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{3i}V + b_{4i}Q + b_{6i}VQ)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_3'W + c_5'V$

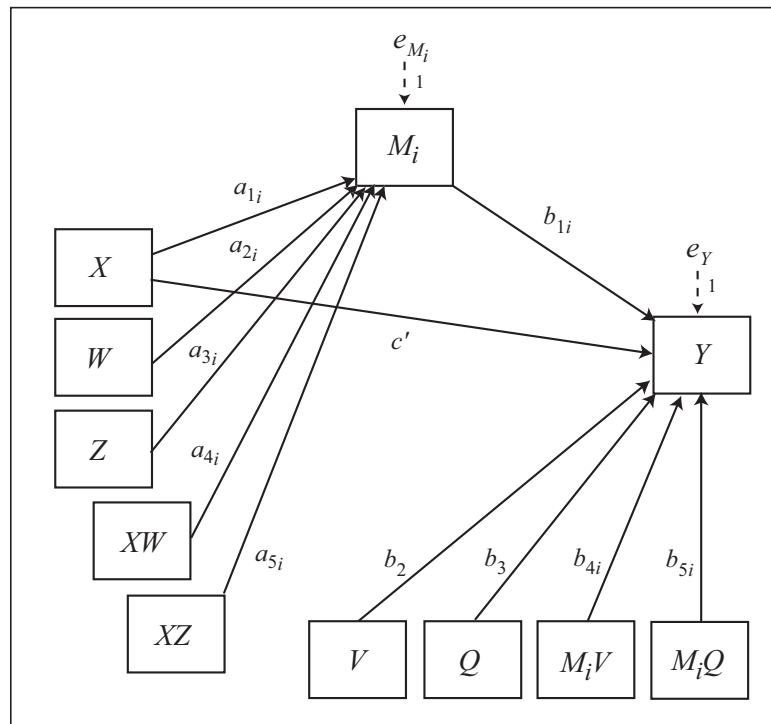
\*Model 44 allows up to 10 mediators operating in parallel

## Model 45

Conceptual Diagram



Statistical Diagram



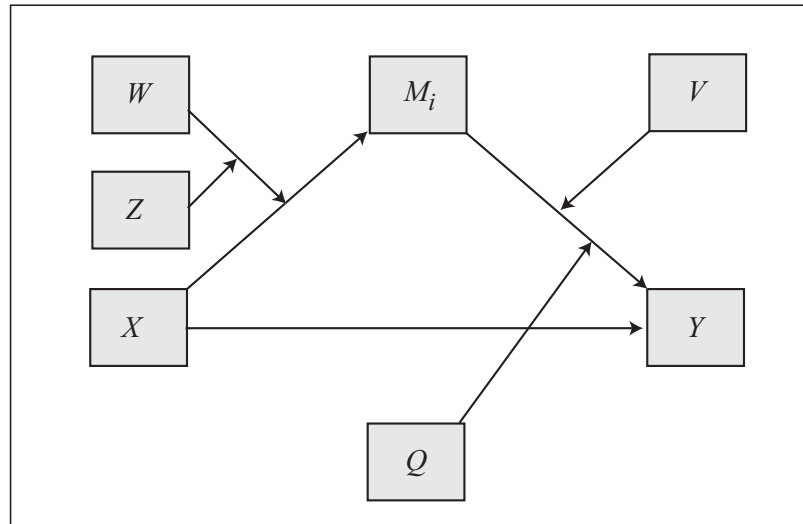
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z)(b_{1i} + b_{4i}V + b_{5i}Q)$

Direct effect of  $X$  on  $Y = c'$

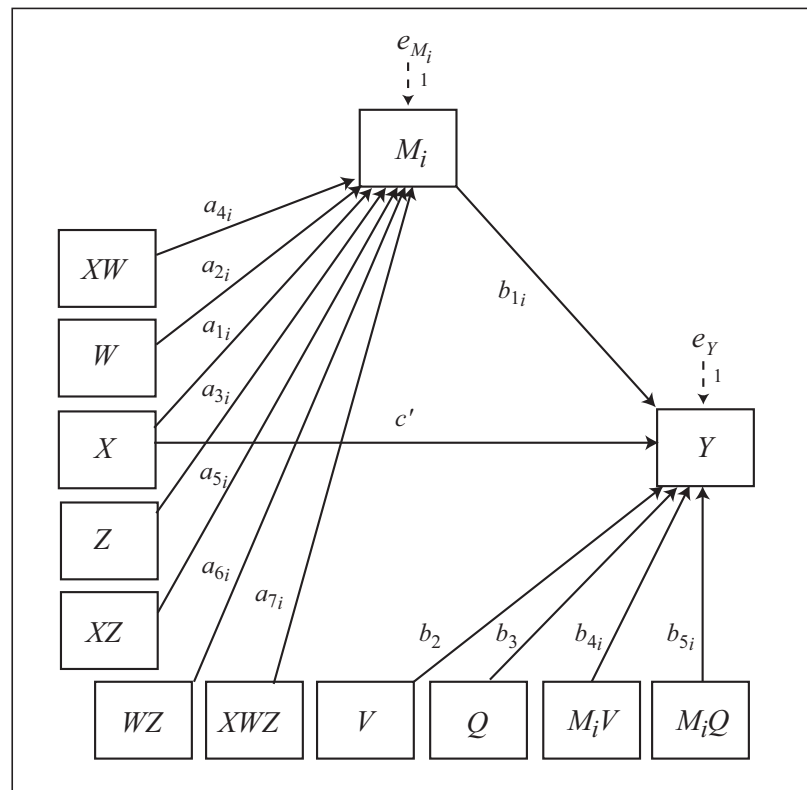
\*Model 45 allows up to 10 mediators operating in parallel

### Model 46

#### Conceptual Diagram



#### Statistical Diagram



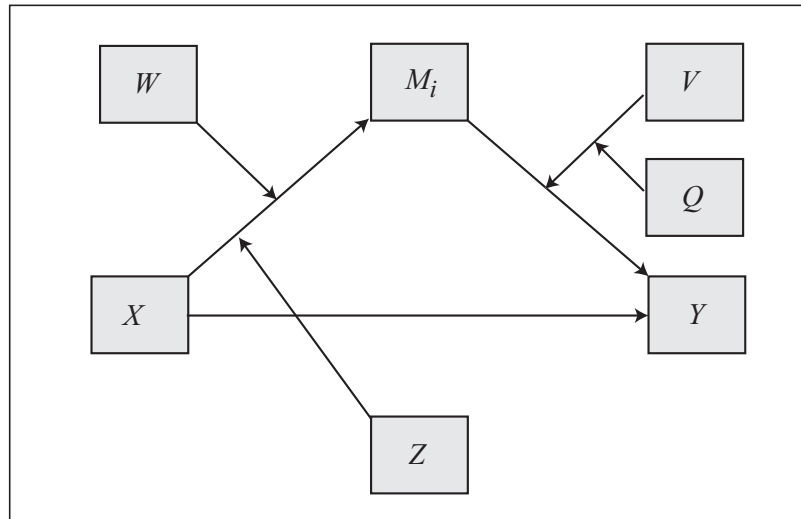
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z + a_{7i}WZ)(b_{1i} + b_{4i}V + b_{5i}Q)$

Direct effect of  $X$  on  $Y = c'$

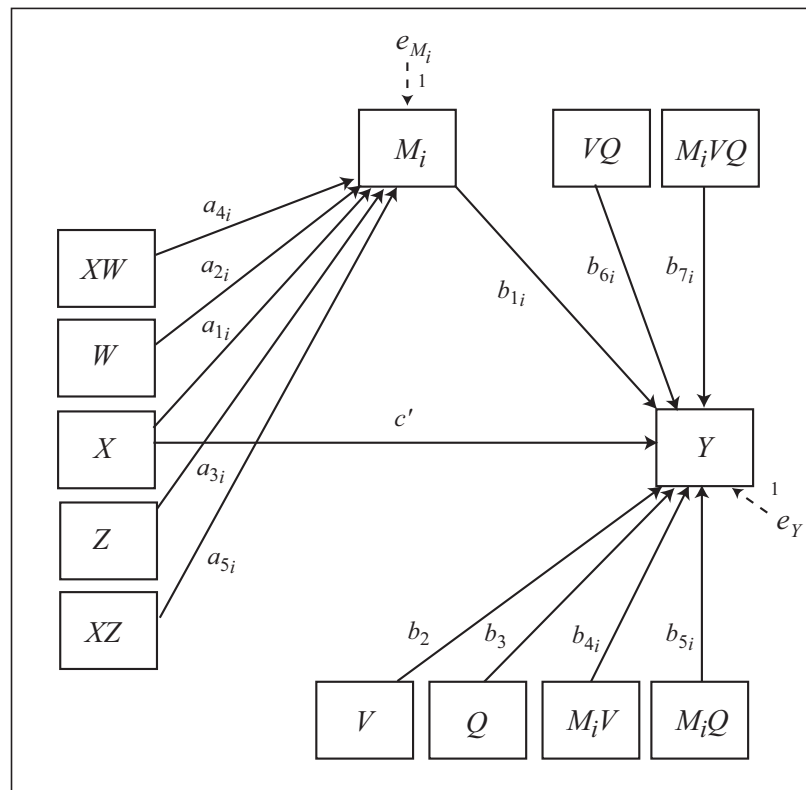
\*Model 46 allows up to 10 mediators operating in parallel

### Model 47

#### Conceptual Diagram



#### Statistical Diagram



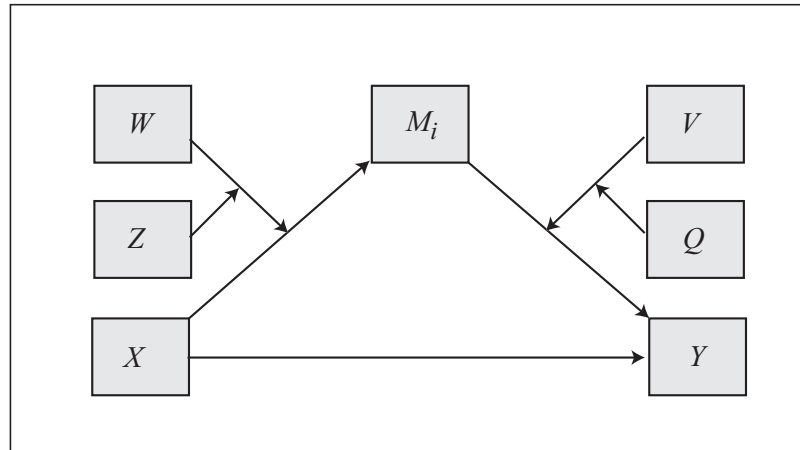
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z)(b_{1i} + b_{4i}V + b_{5i}Q + b_{7i}VQ)$

Direct effect of  $X$  on  $Y = c'$

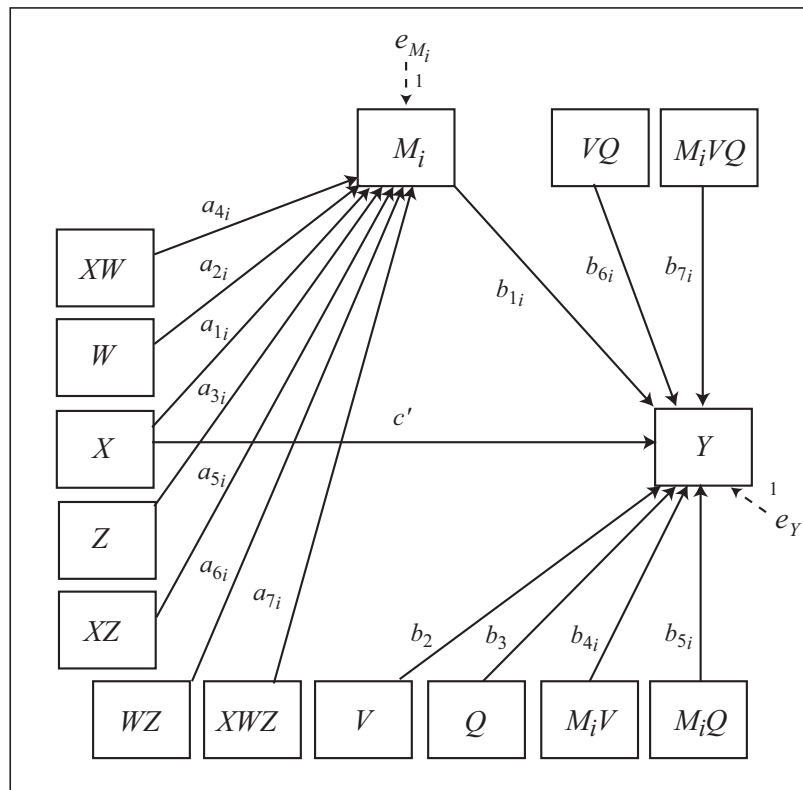
\*Model 47 allows up to 10 mediators operating in parallel

## Model 48

### Conceptual Diagram



### Statistical Diagram

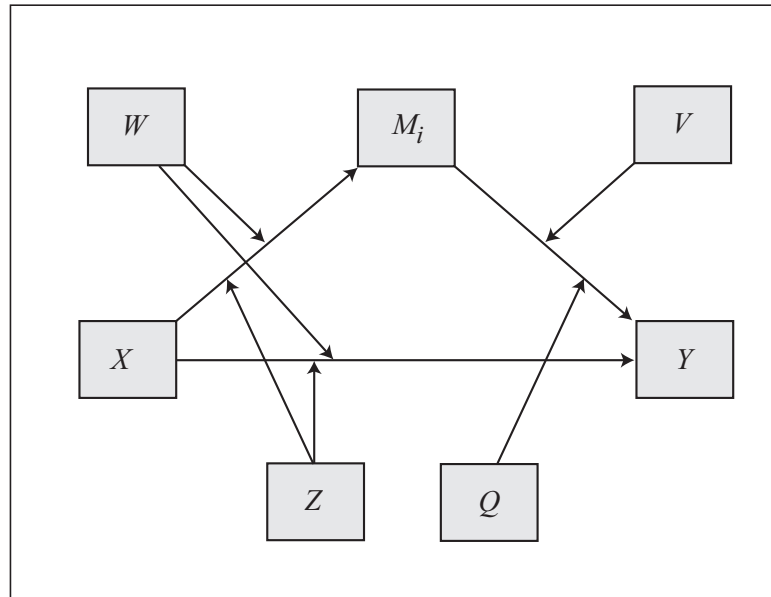


Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z + a_{7i}WZ) \cdot (b_{1i} + b_{4i}V + b_{5i}Q + b_{7i}VQ)$   
 Direct effect of  $X$  on  $Y = c'$

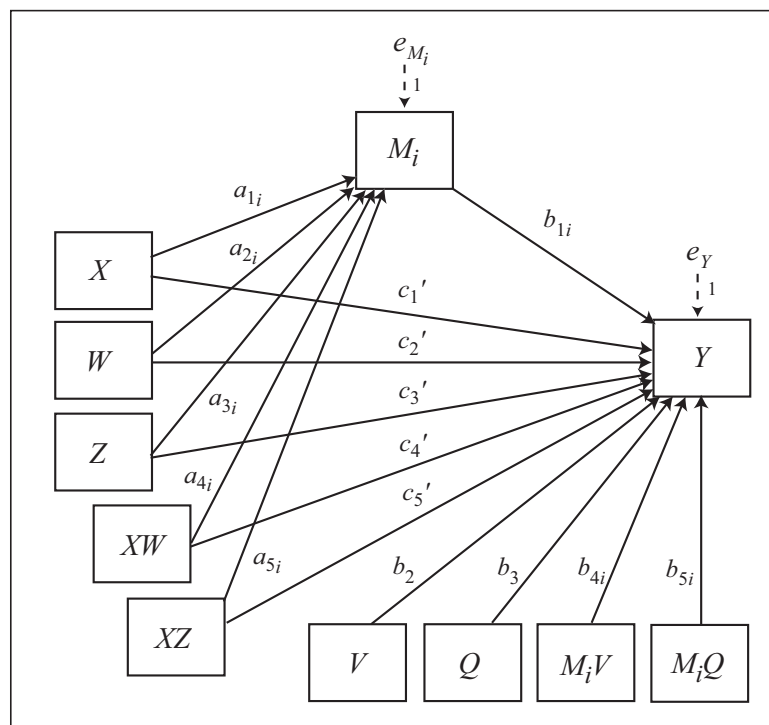
\*Model 48 allows up to 10 mediators operating in parallel

## Model 49

Conceptual Diagram



Statistical Diagram



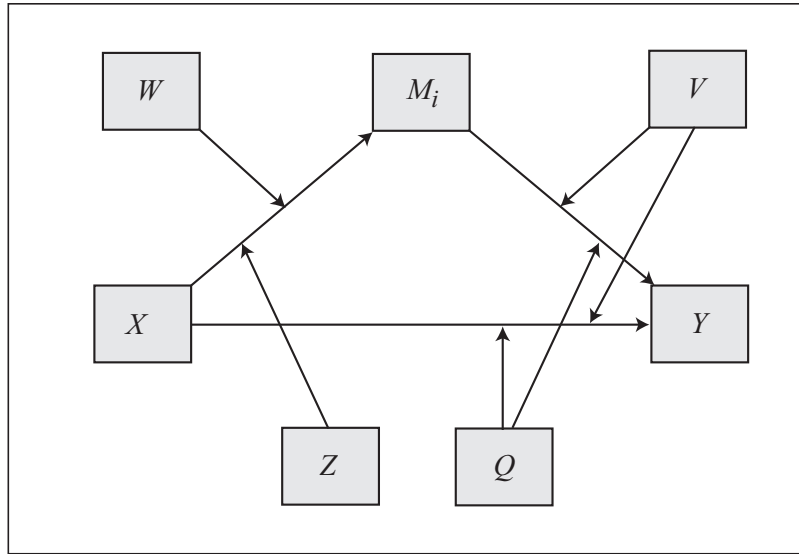
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z)(b_{1i} + b_{4i}V + b_{5i}Q)$

Conditional direct effect of  $X$  on  $Y = + c_1' + c_4'W + c_5'Z$

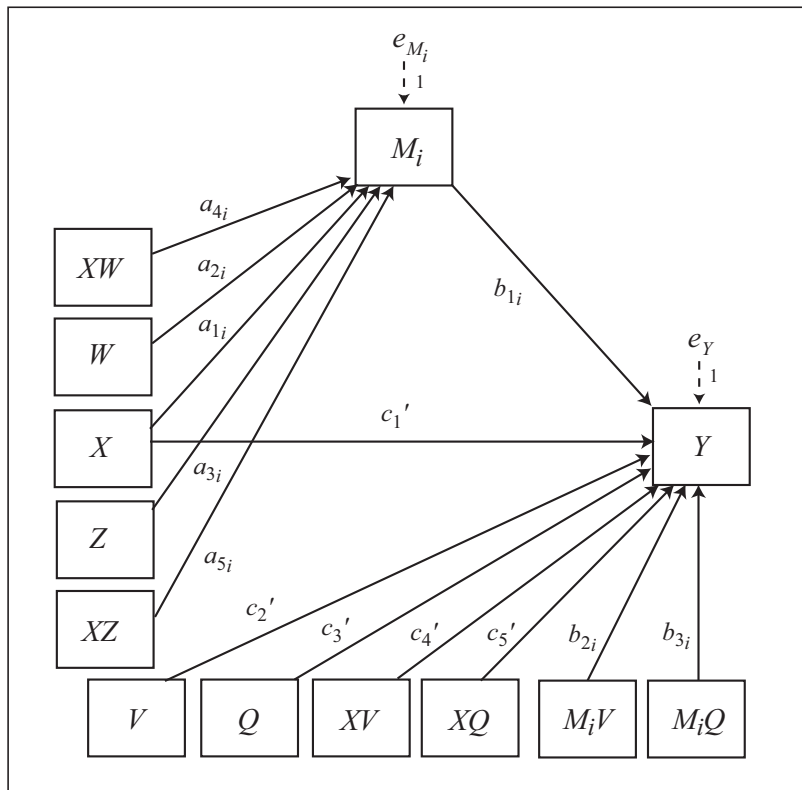
\*Model 49 allows up to 10 mediators operating in parallel

### Model 50

#### Conceptual Diagram



#### Statistical Diagram

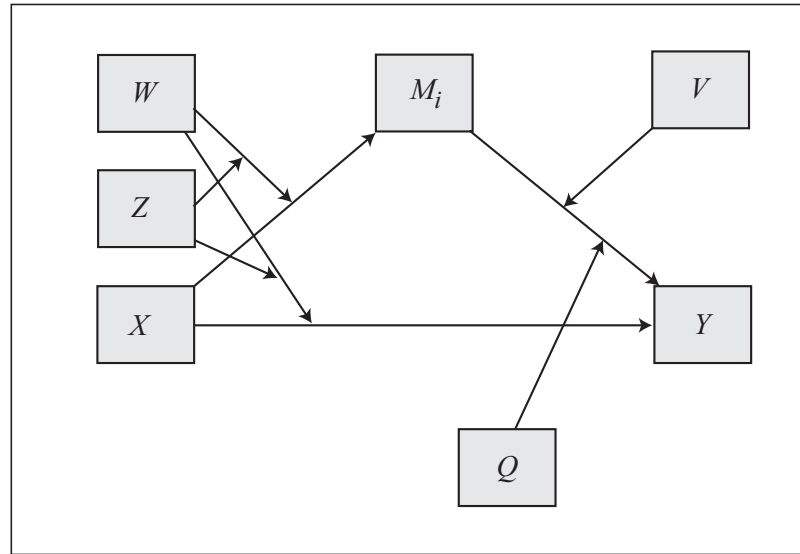


Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z)(b_{1i} + b_{2i}V + b_{3i}Q)$   
 Conditional direct effect of  $X$  on  $Y = c_1' + c_4'V + c_5'Q$

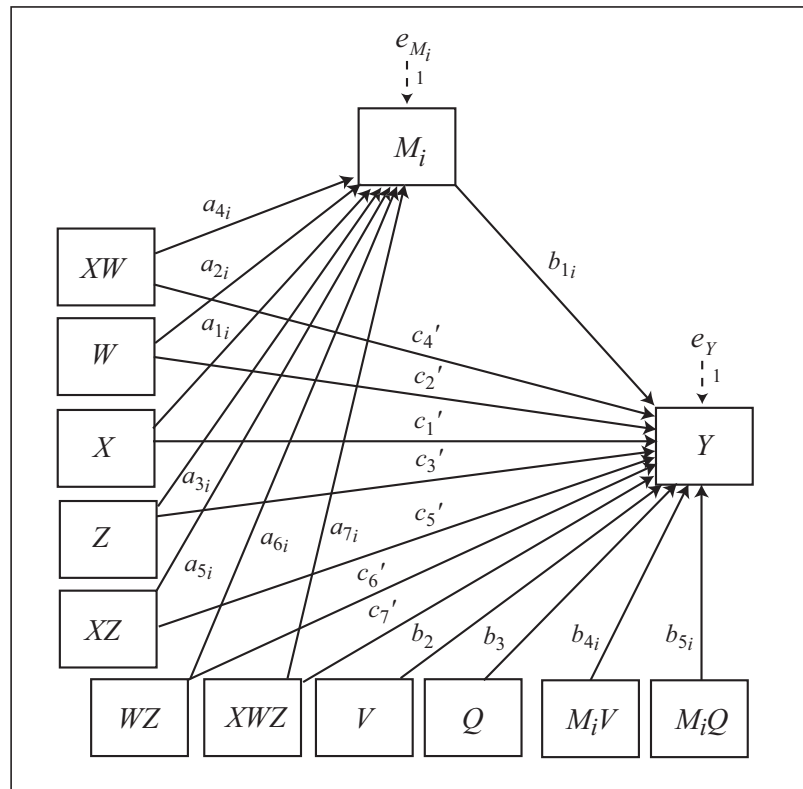
\*Model 50 allows up to 10 mediators operating in parallel

### Model 51

#### Conceptual Diagram



#### Statistical Diagram



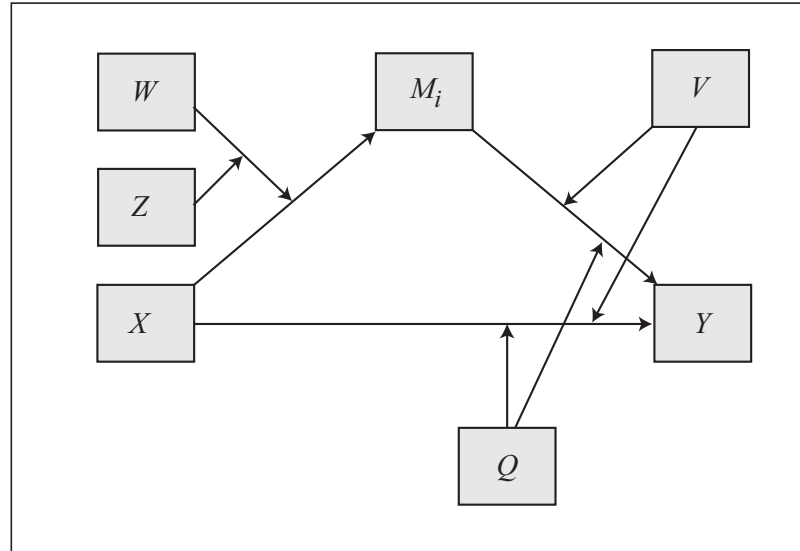
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z + a_{7i}WZ)(b_{1i} + b_{4i}V + b_{5i}Q)$   
 Conditional direct effect of  $X$  on  $Y = c_1' + c_4'W + c_5'Z + c_7'WZ$

\*Model 51 allows up to 10 mediators operating in parallel

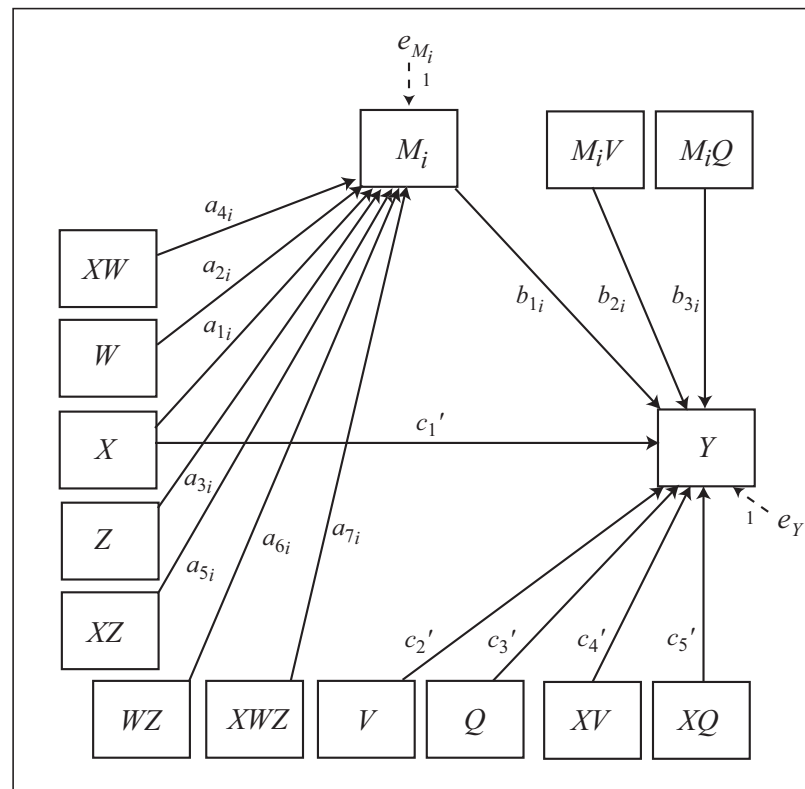


## Model 52

### Conceptual Diagram



### Statistical Diagram



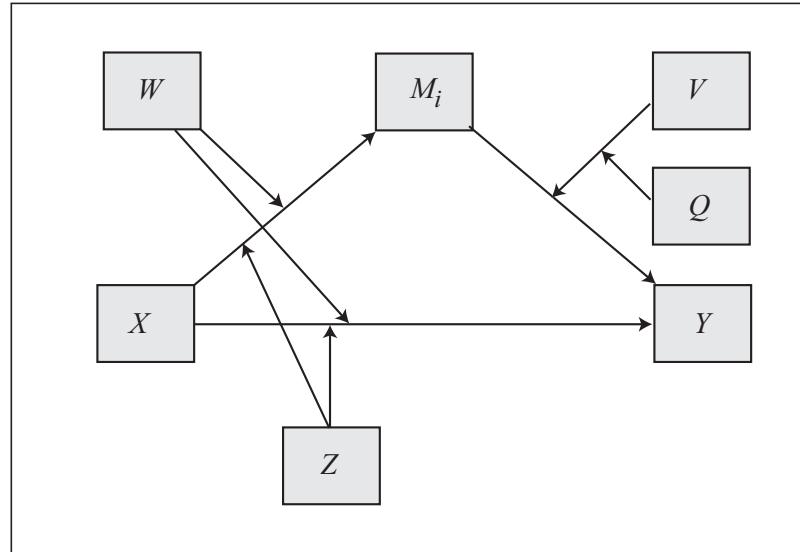
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z + a_{7i}WZ)(b_{1i} + b_{2i}V + b_{3i}Q)$

Conditional direct effect of  $X$  on  $Y = c_{1'} + c_{4'}V + c_{5'}Q$

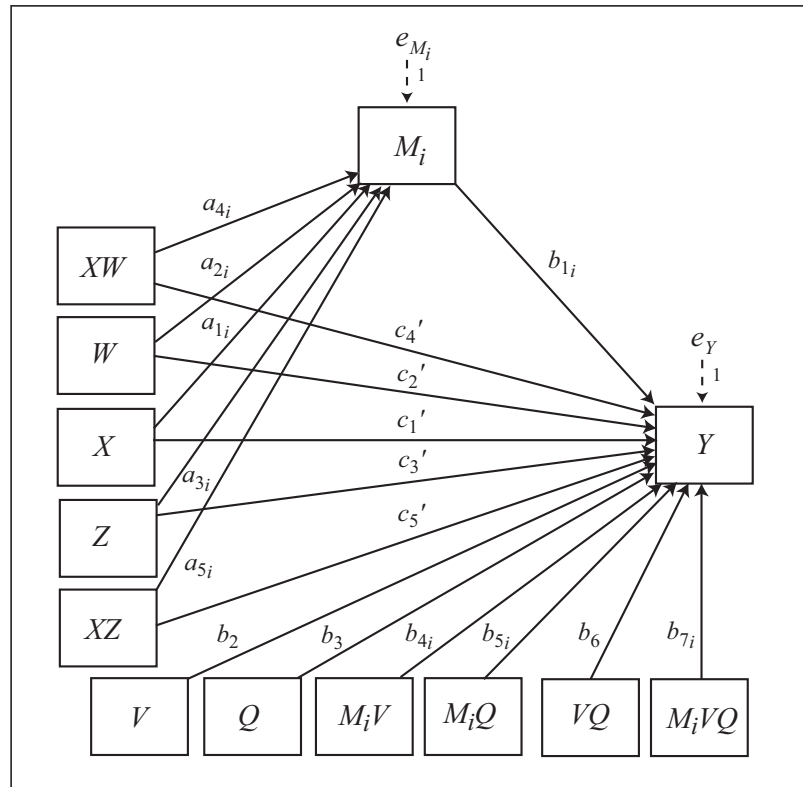
\*Model 52 allows up to 10 mediators operating in parallel

### Model 53

#### Conceptual Diagram



#### Statistical Diagram



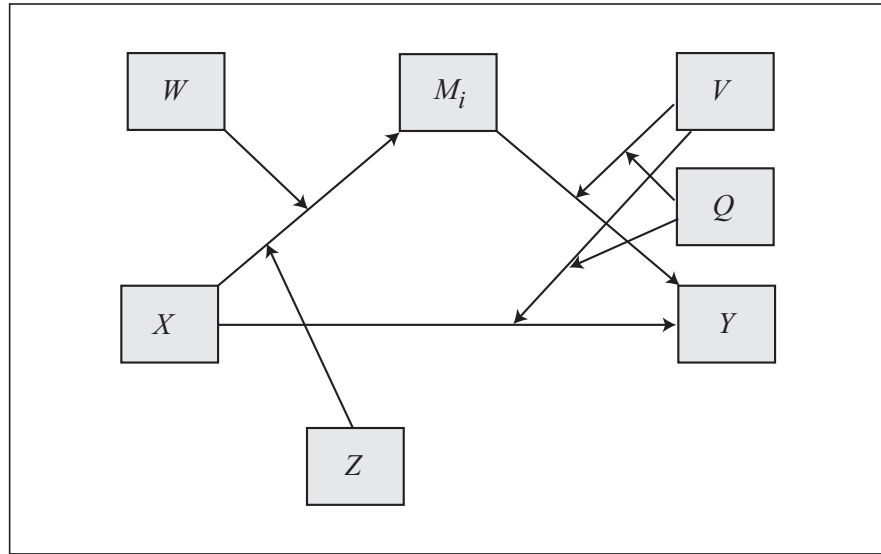
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z)(b_{1i} + b_{4i}V + b_{5i}Q + b_{7i}VQ)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_4'W + c_5'Z$

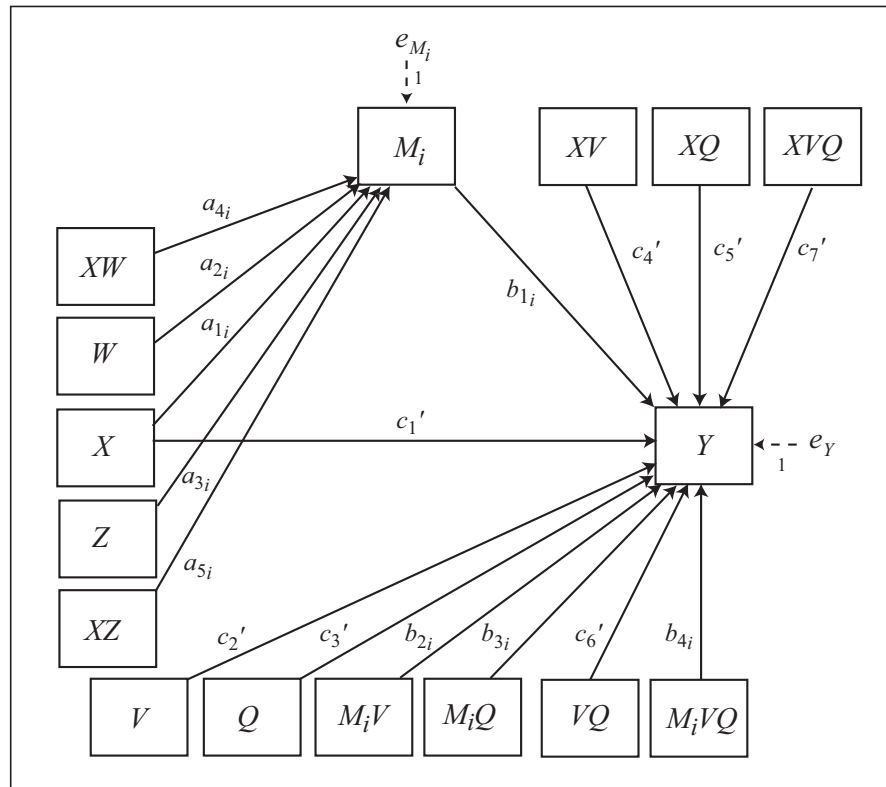
\*Model 53 allows up to 10 mediators operating in parallel

## Model 54

### Conceptual Diagram



### Statistical Diagram



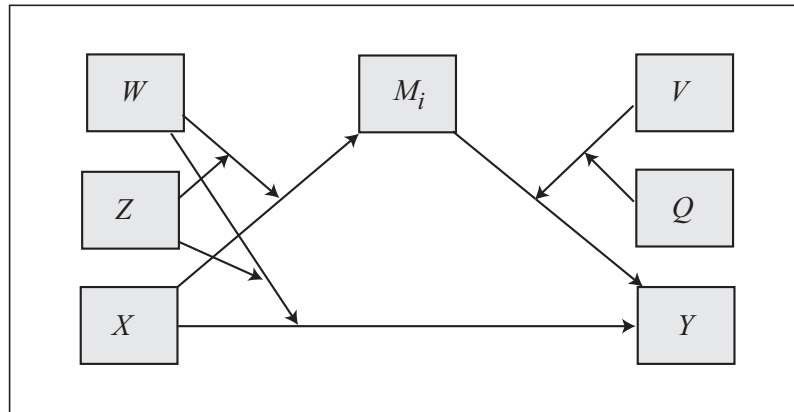
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z)(b_{1i} + b_{2i}V + b_{3i}Q + b_{4i}VQ)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_4'V + c_5'Q + c_7'VQ$

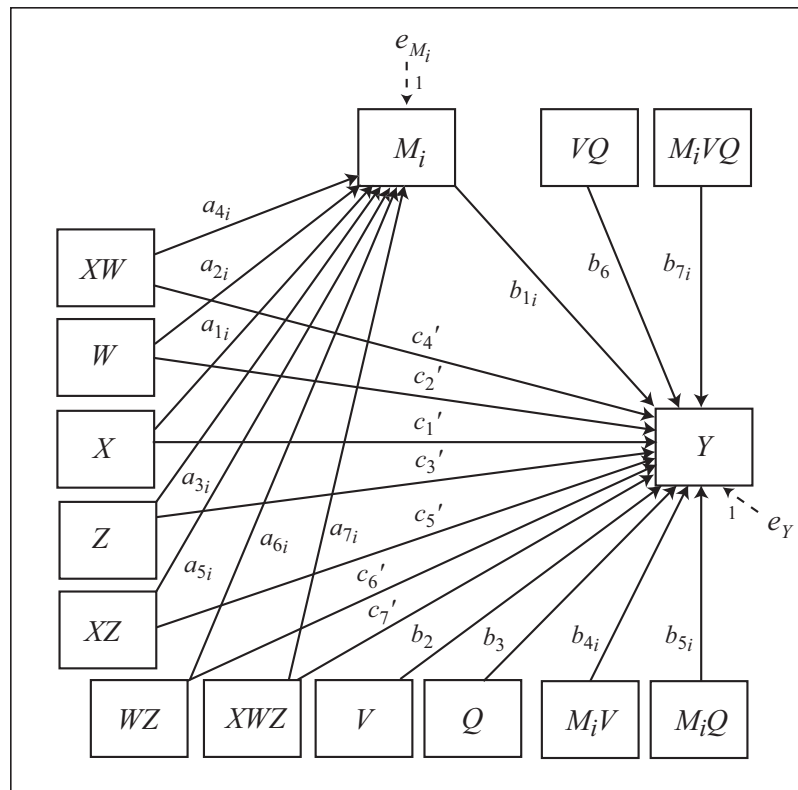
\*Model 54 allows up to 10 mediators operating in parallel

## Model 55

### Conceptual Diagram



### Statistical Diagram



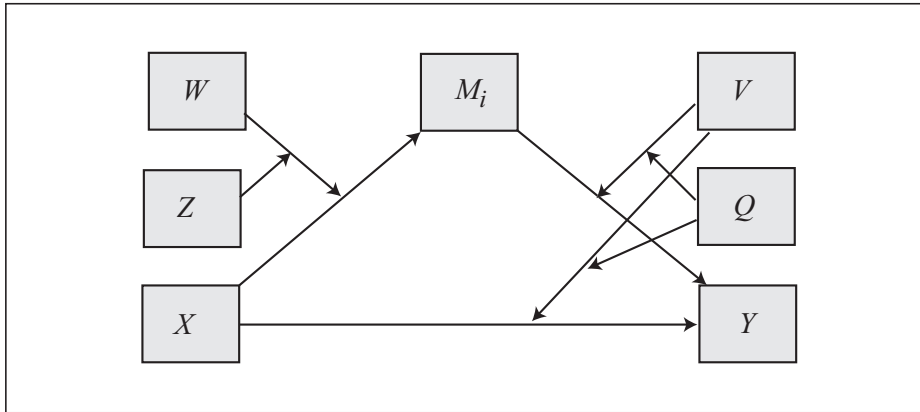
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z + a_{7i}WZ) \cdot (b_{1i} + b_{4i}V + b_{5i}Q + b_{7i}VQ)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_4'W + c_5'Z + c_7'WZ$

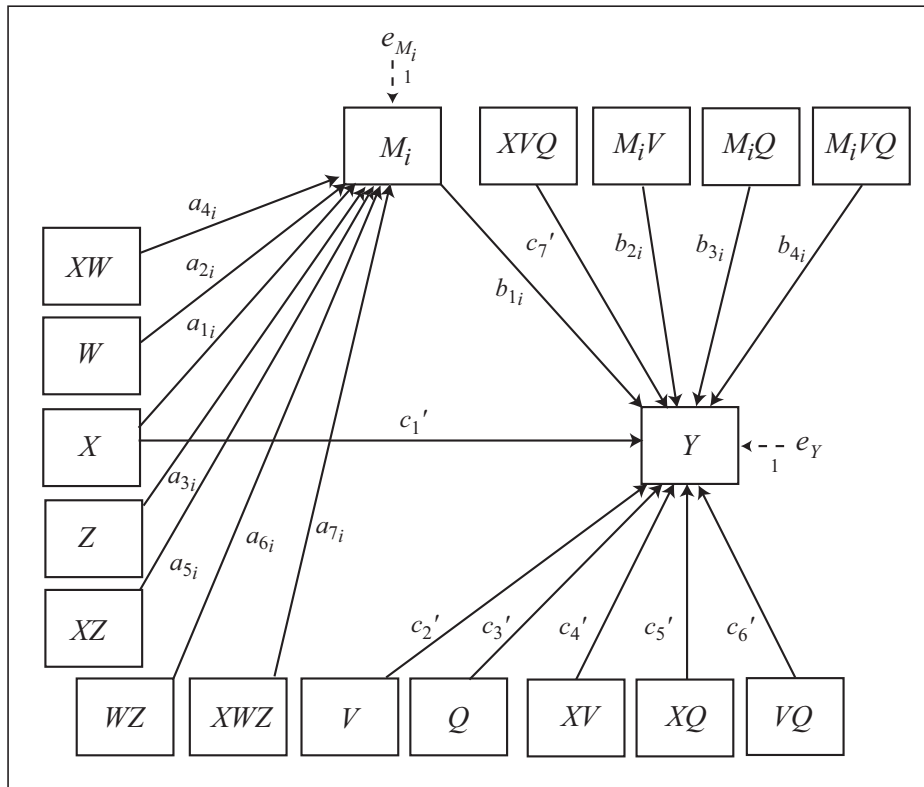
\*Model 55 allows up to 10 mediators operating in parallel

## Model 56

### Conceptual Diagram



### Statistical Diagram



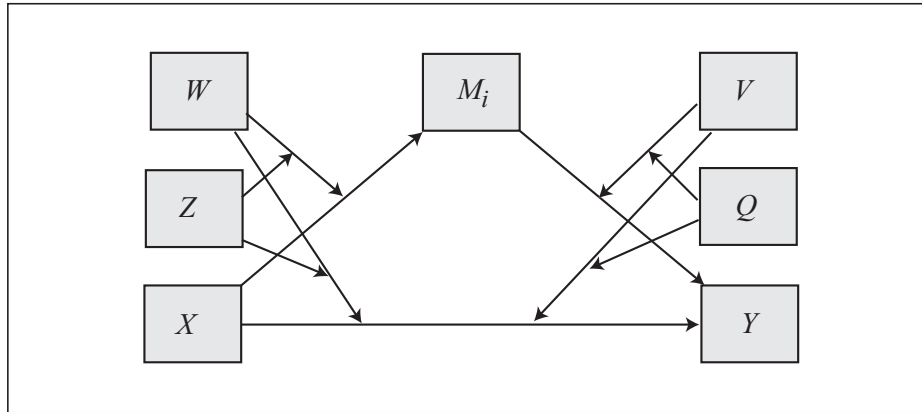
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z + a_{7i}WZ) \cdot (b_{1i} + b_{2i}V + b_{3i}Q + b_{4i}VQ)$

Conditional direct effect of  $X$  on  $Y = (c_{1'} + c_{4'}V + c_{5'}Q + c_{7'}VQ)$

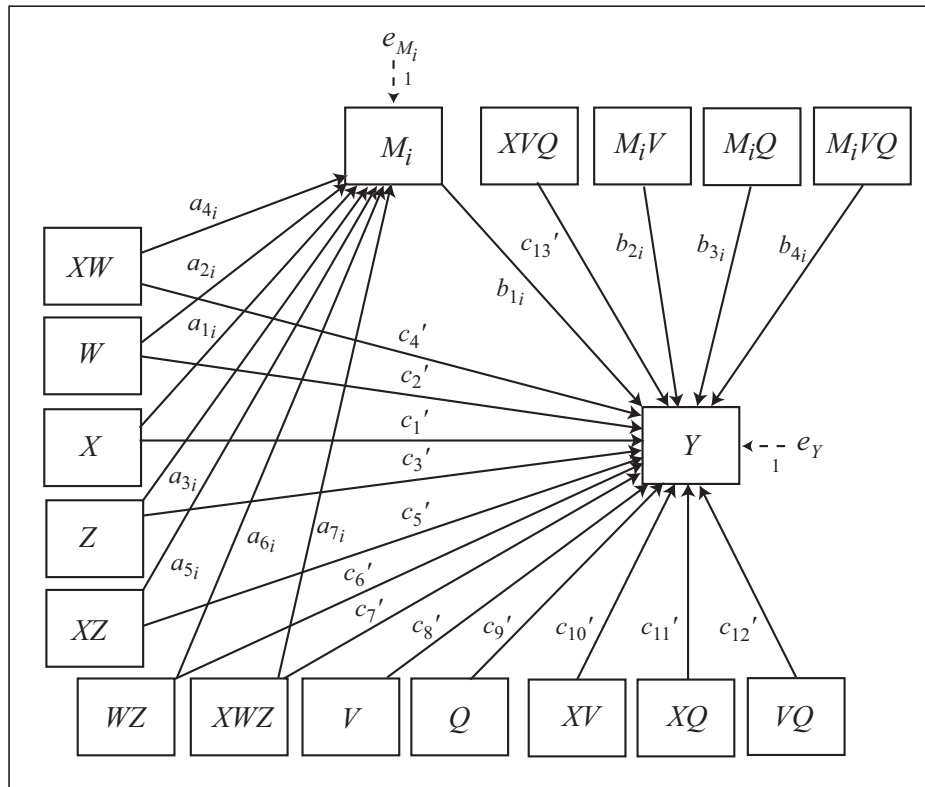
\*Model 56 allows up to 10 mediators operating in parallel

## Model 57

### Conceptual Diagram



### Statistical Diagram



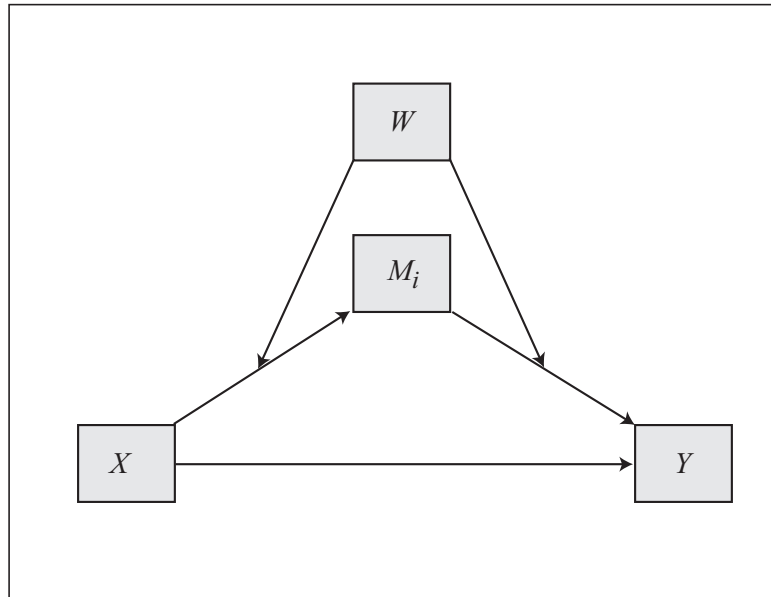
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z + a_{7i}WZ) \cdot (b_{1i} + b_{2i}V + b_{3i}Q + b_{4i}VQ)$

Conditional direct effect of  $X$  on  $Y = (c_{1'} + c_{4'}W + c_{5'}Z + c_{7'}WZ + c_{10'}V + c_{11'}Q + c_{13'}VQ)$

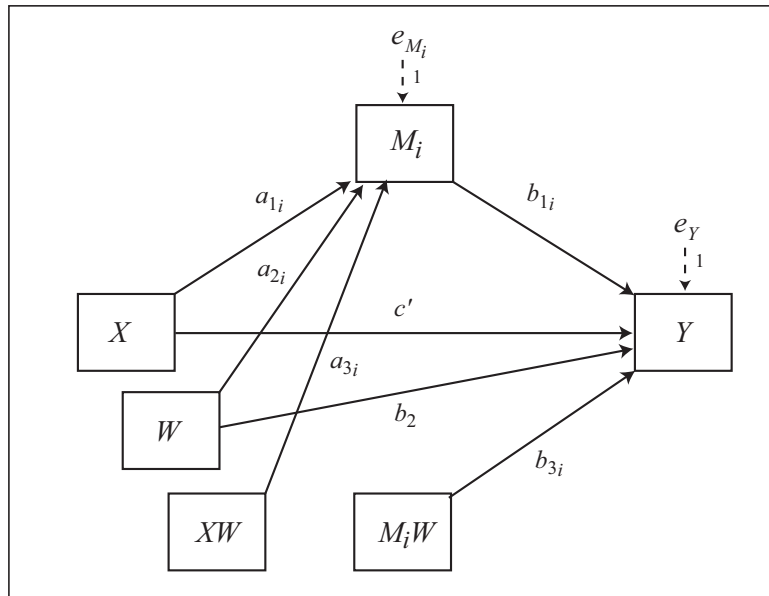
\*Model 57 allows up to 10 mediators operating in parallel

## Model 58

Conceptual Diagram



Statistical Diagram



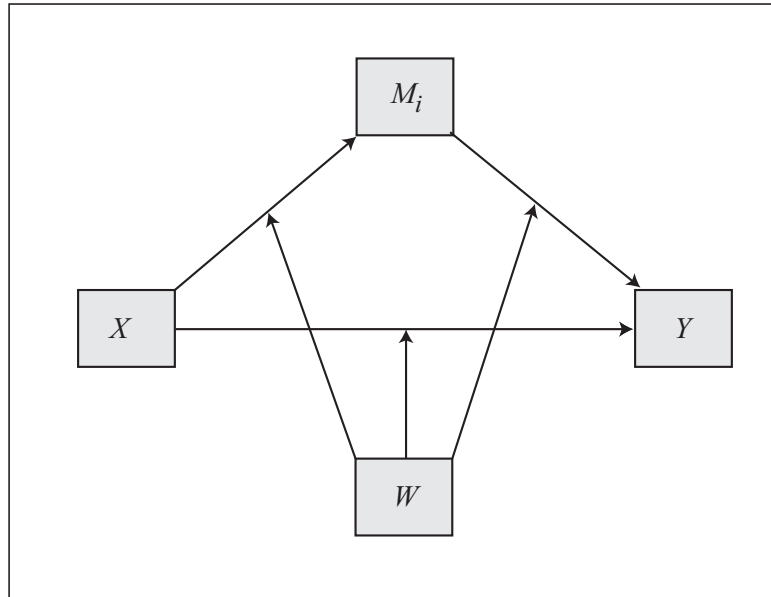
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{3i}W)$

Direct effect of  $X$  on  $Y = c'$

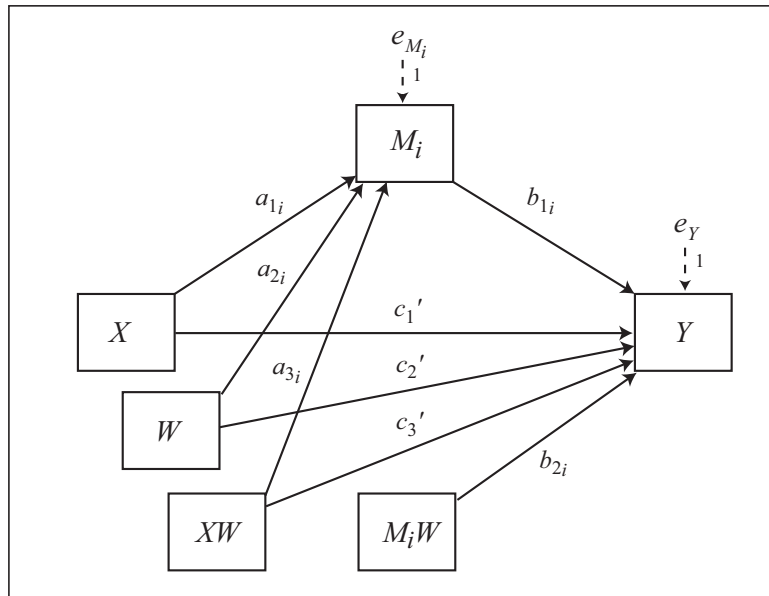
Note: Model 58 allows up to 10 mediators operating in parallel.

## Model 59

Conceptual Diagram



Statistical Diagram



Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W) (b_{1i} + b_{2i}W)$

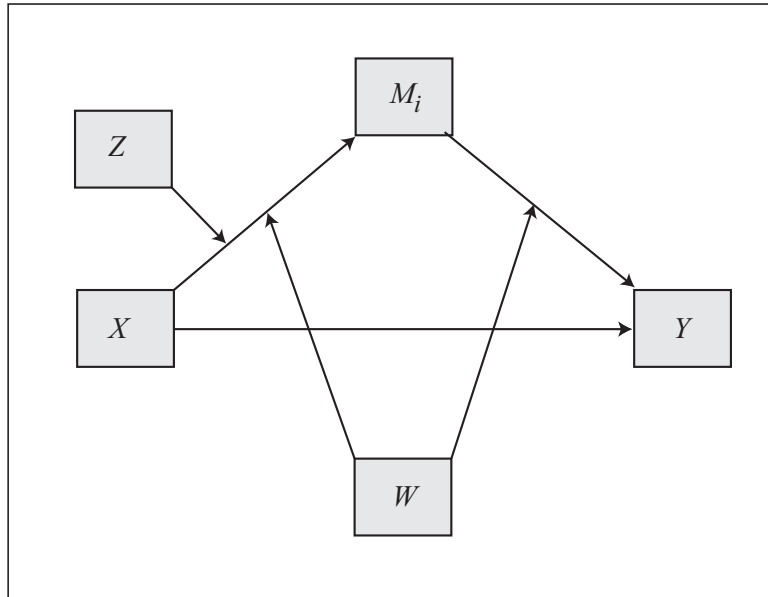
Conditional direct effect of  $X$  on  $Y = c_1' + c_3'W$

Note: Model 59 allows up to 10 mediators operating in parallel.

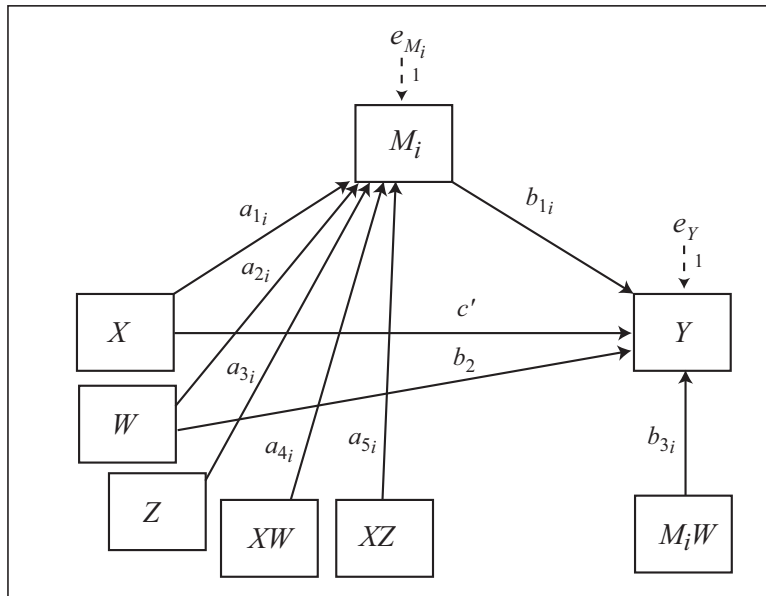


## Model 60

Conceptual Diagram



Statistical Diagram



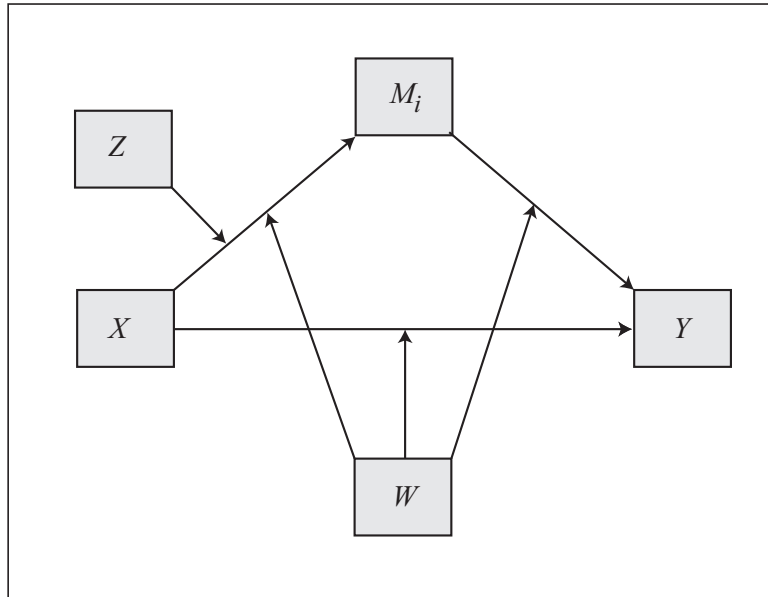
Conditional indirect effect of X on Y through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z)(b_{1i} + b_{3i}W)$

Direct effect of X on Y =  $c'$

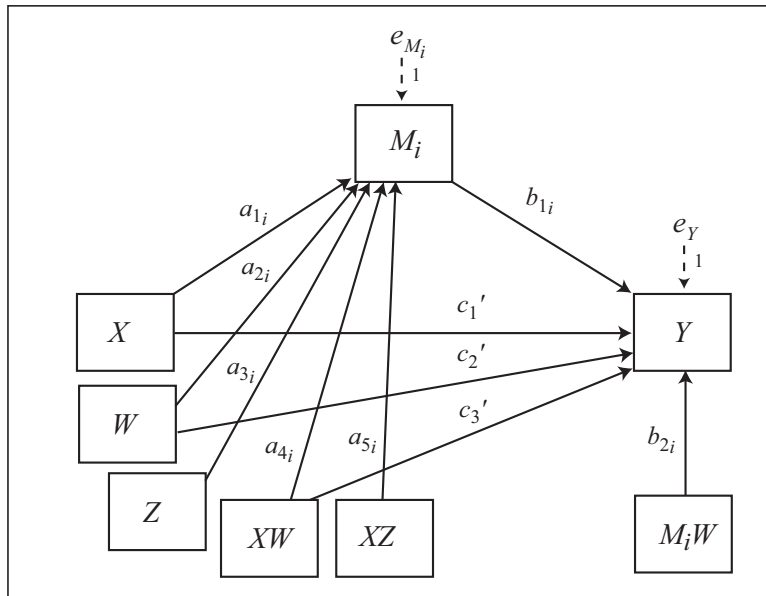
\*Model 60 allows up to 10 mediators operating in parallel

## Model 61

Conceptual Diagram



Statistical Diagram



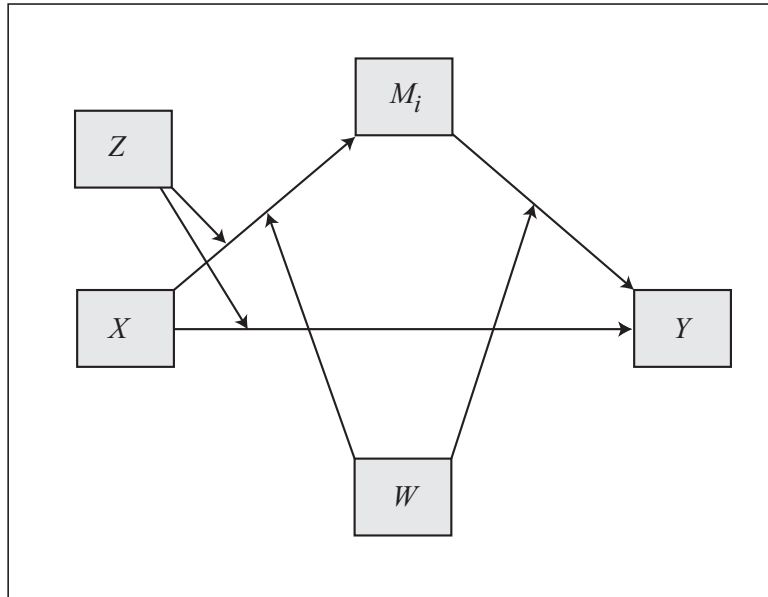
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z)(b_{1i} + b_{2i}W)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_3'W$

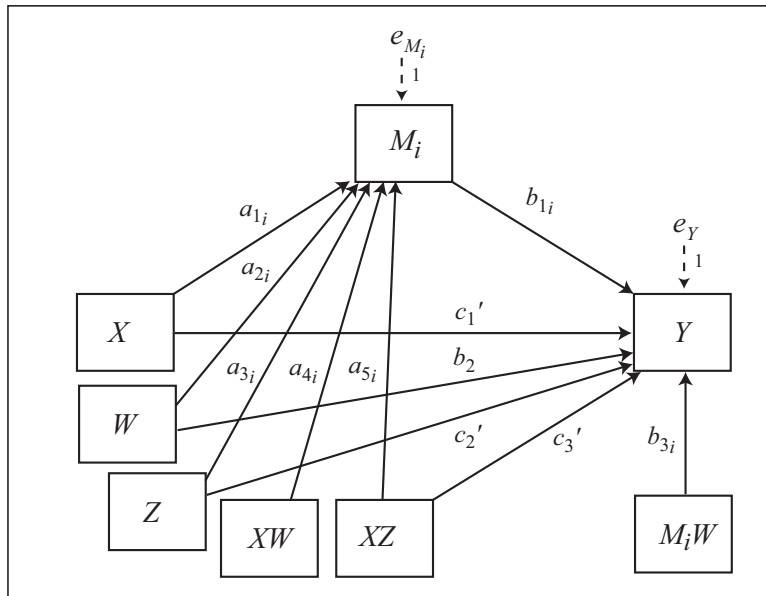
\*Model 61 allows up to 10 mediators operating in parallel

## Model 62

Conceptual Diagram



Statistical Diagram



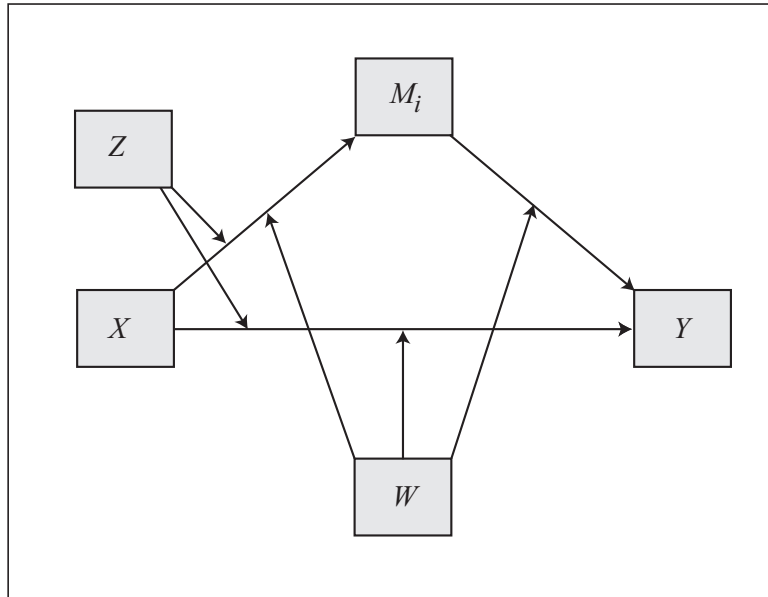
Conditional indirect effect of X on Y through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z)(b_{1i} + b_{3i}W)$

Conditional direct effect of X on Y =  $c_1' + c_3'Z$

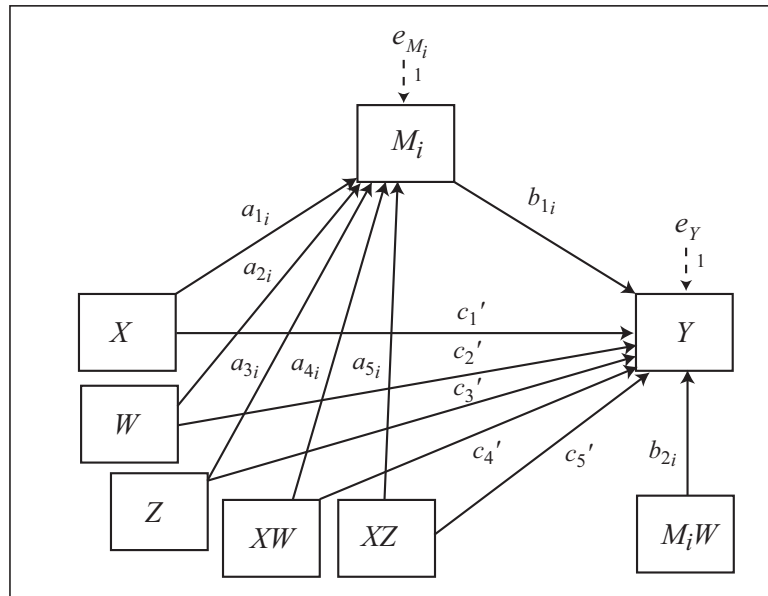
\*Model 62 allows up to 10 mediators operating in parallel

### Model 63

Conceptual Diagram



Statistical Diagram



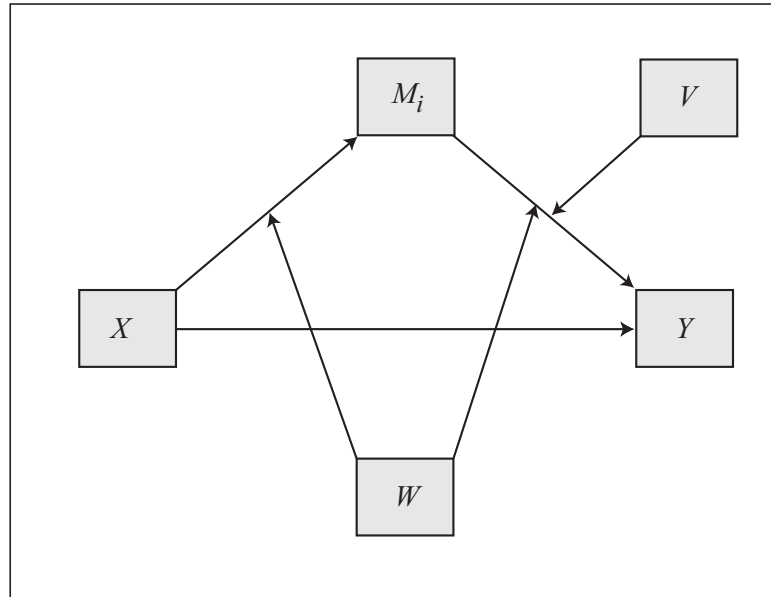
Conditional indirect effect of X on Y through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z)(b_{1i} + b_{2i}W)$

Conditional direct effect of X on Y =  $c_1' + c_4'W + c_5'Z$

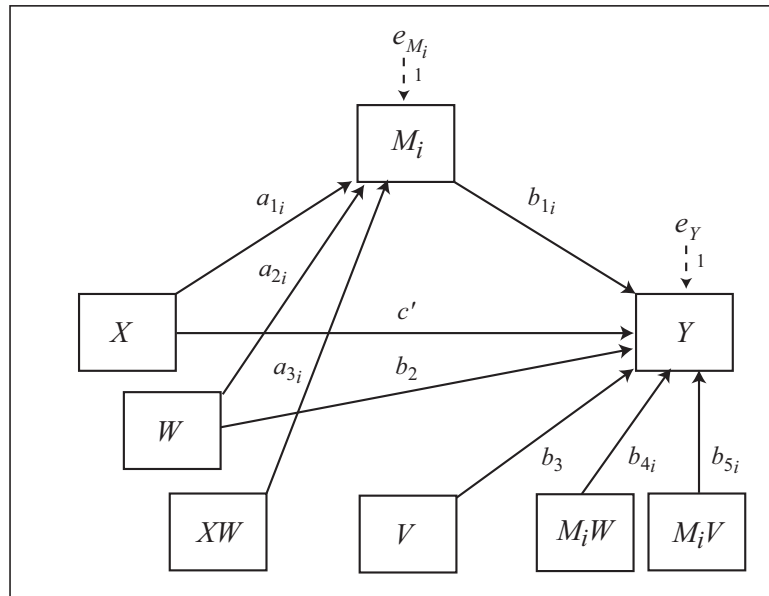
\*Model 63 allows up to 10 mediators operating in parallel

## Model 64

Conceptual Diagram



Statistical Diagram



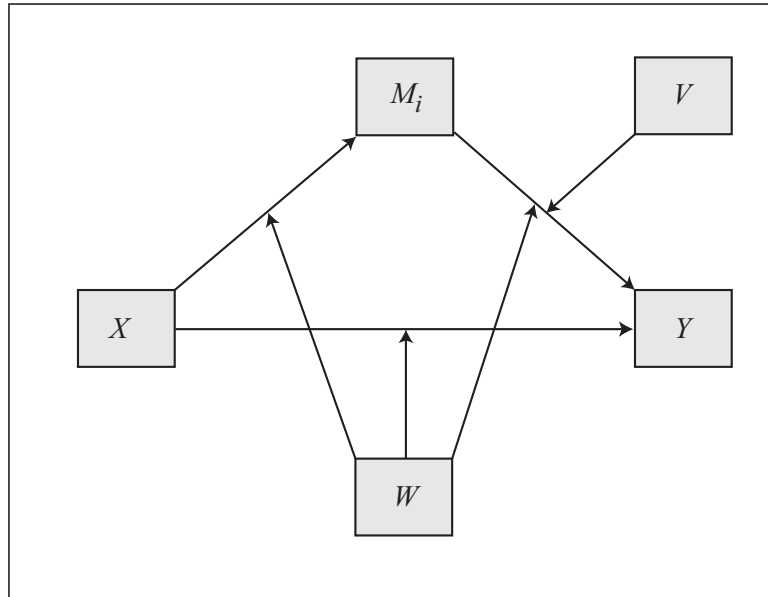
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{4i}W + b_{5i}V)$

Direct effect of  $X$  on  $Y = c'$

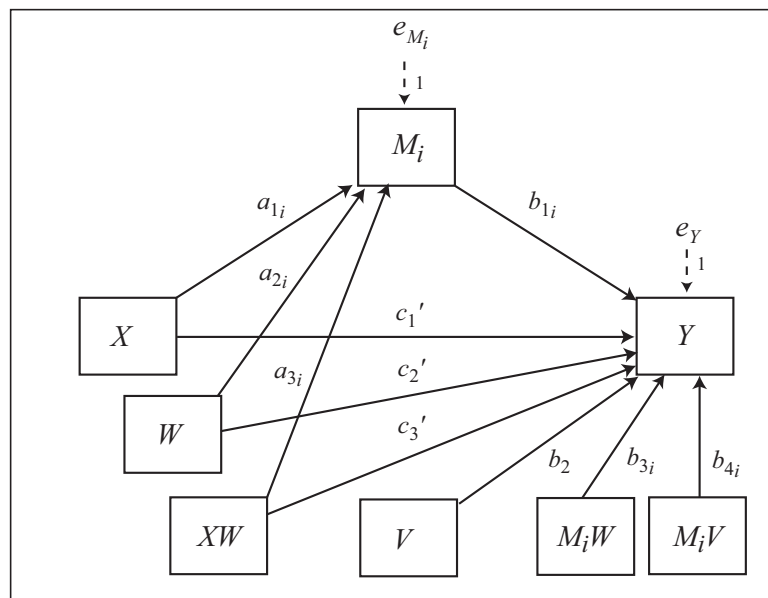
\*Model 64 allows up to 10 mediators operating in parallel

## Model 65

Conceptual Diagram



Statistical Diagram



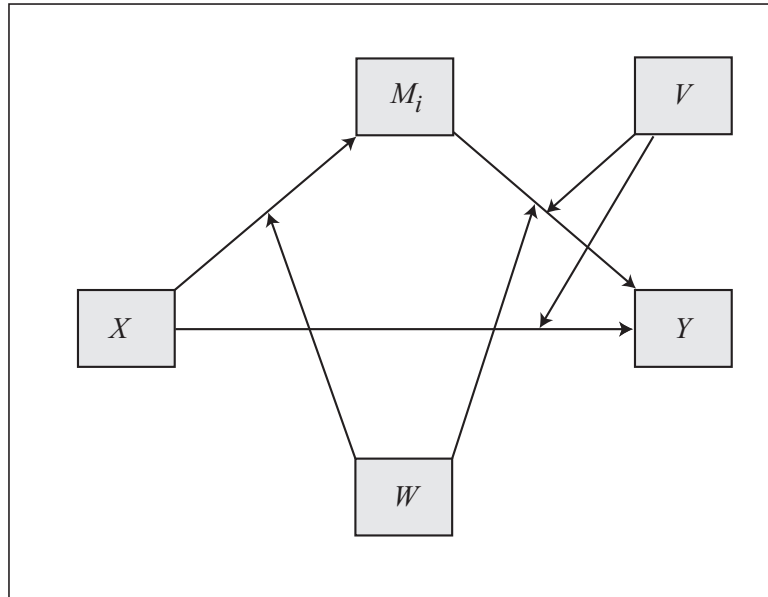
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{3i}W + b_{4i}V)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_3'W$

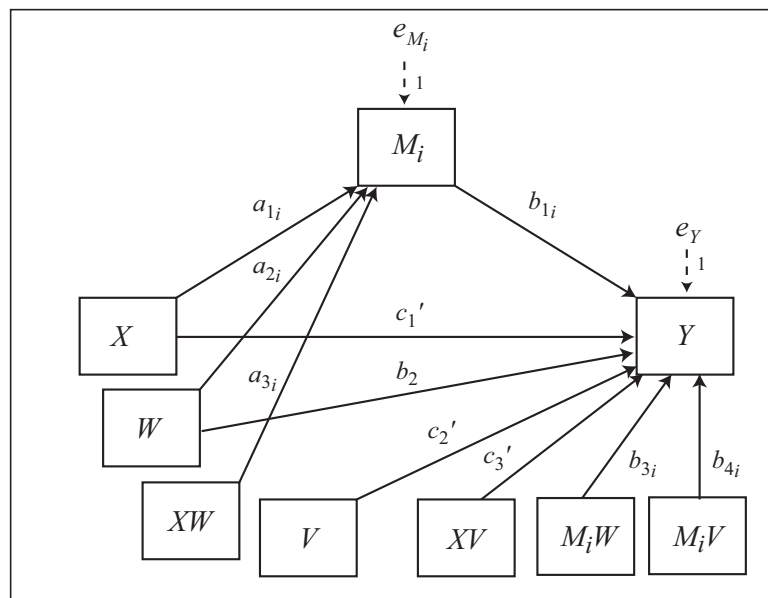
\*Model 65 allows up to 10 mediators operating in parallel

## Model 66

Conceptual Diagram



Statistical Diagram



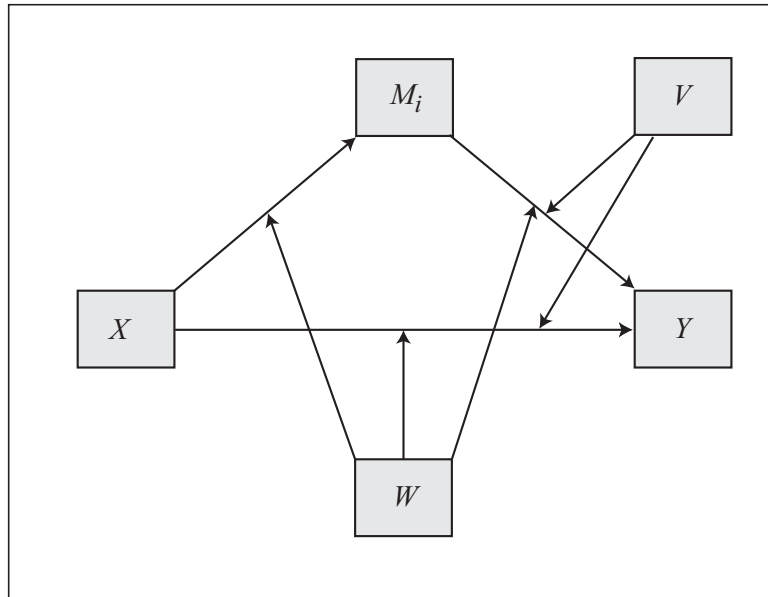
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{3i}W + b_{4i}V)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_3'V$

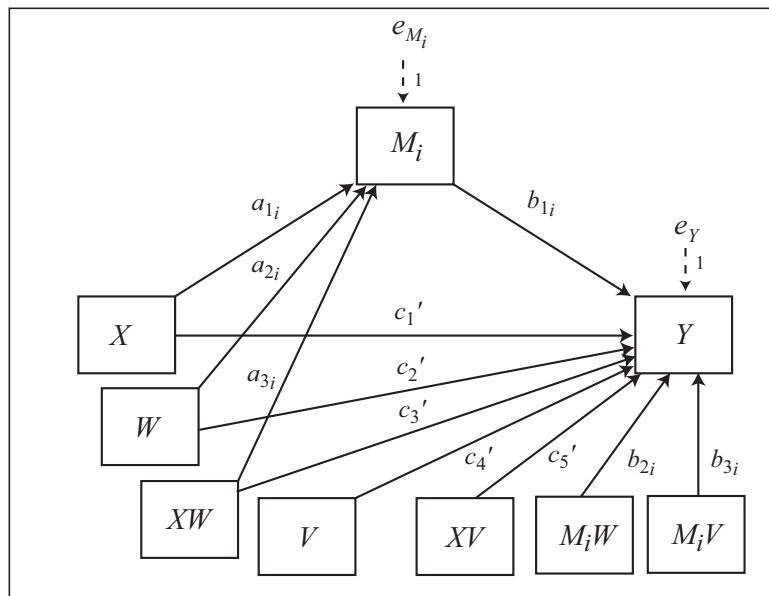
\*Model 66 allows up to 10 mediators operating in parallel

## Model 67

Conceptual Diagram



Statistical Diagram



Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{2i}W + b_{3i}V)$

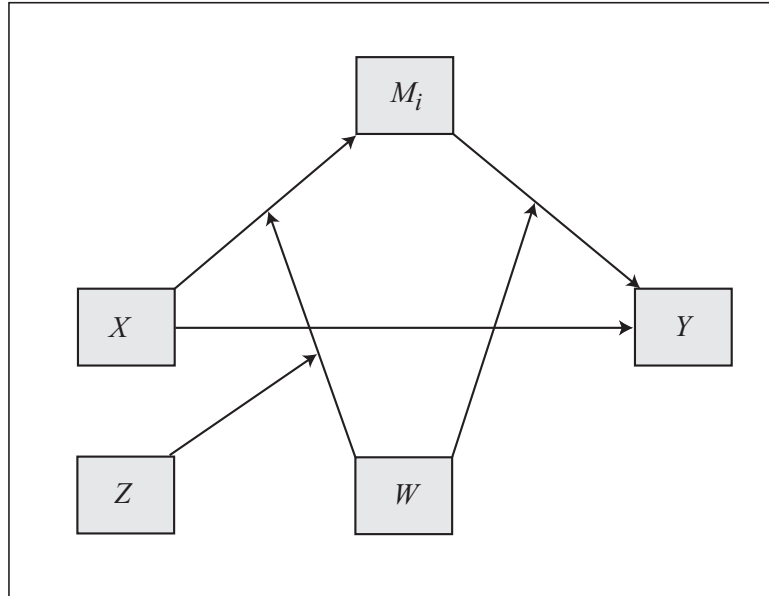
Conditional direct effect of  $X$  on  $Y = c_1' + c_3'W + c_5'V$

\*Model 67 allows up to 10 mediators operating in parallel

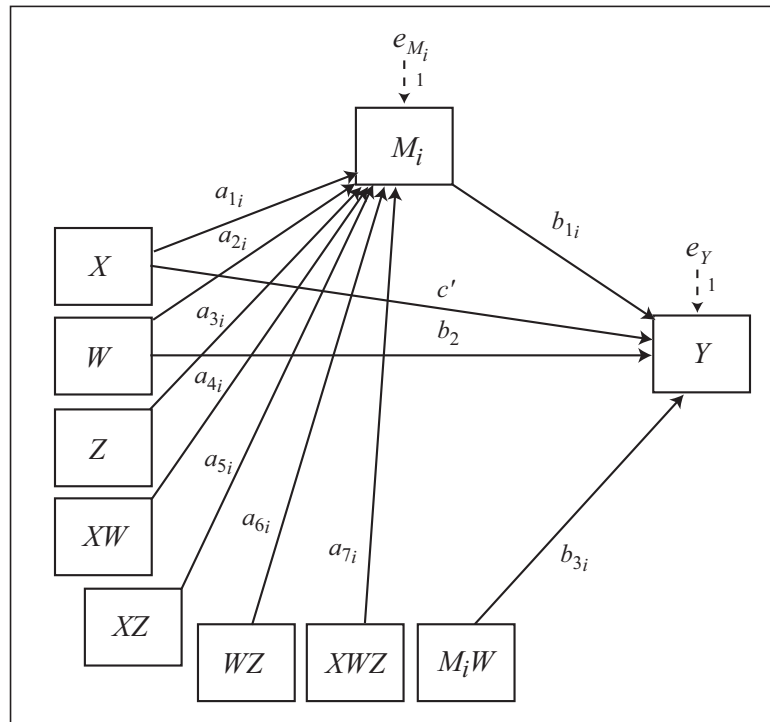


## Model 68

Conceptual Diagram



Statistical Diagram



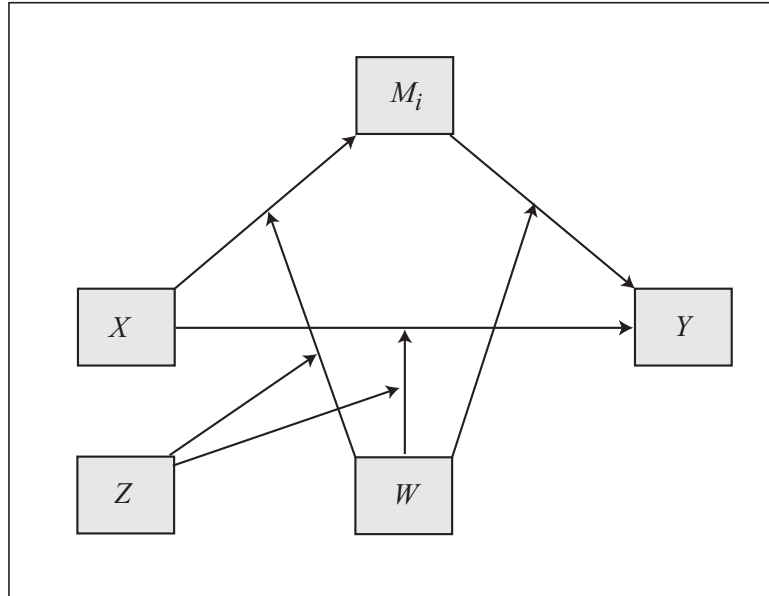
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z + a_{7i}WZ)(b_{1i} + b_{3i}W)$

Direct effect of  $X$  on  $Y = c'$

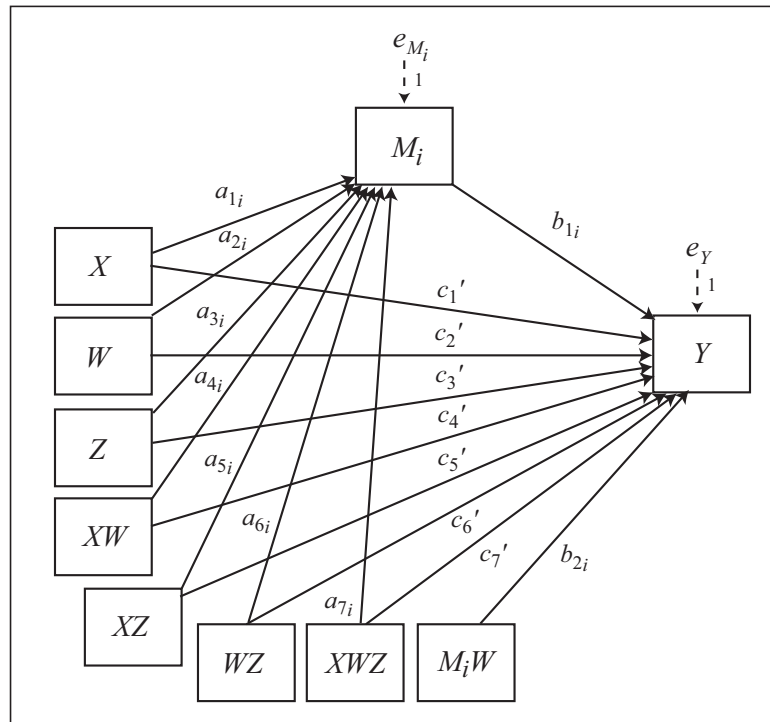
\*Model 68 allows up to 10 mediators operating in parallel

## Model 69

Conceptual Diagram



Statistical Diagram



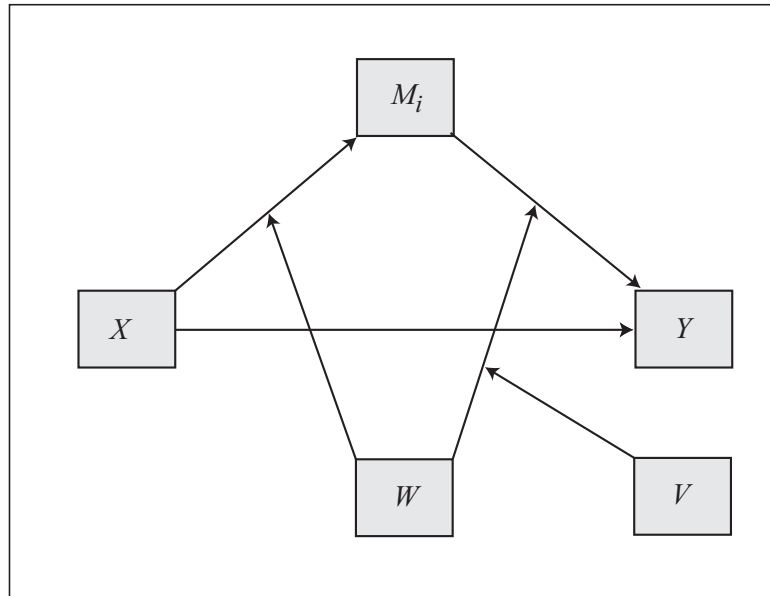
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z + a_{7i}WZ)(b_{1i} + b_{2i}W)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_4'W + c_5'Z + c_7'WZ$

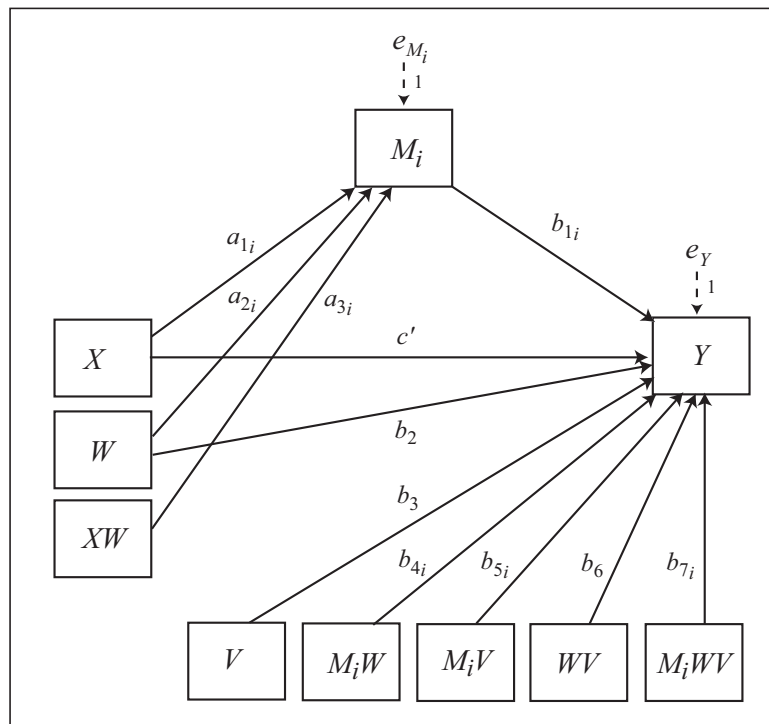
\*Model 69 allows up to 10 mediators operating in parallel

## Model 70

Conceptual Diagram



Statistical Diagram



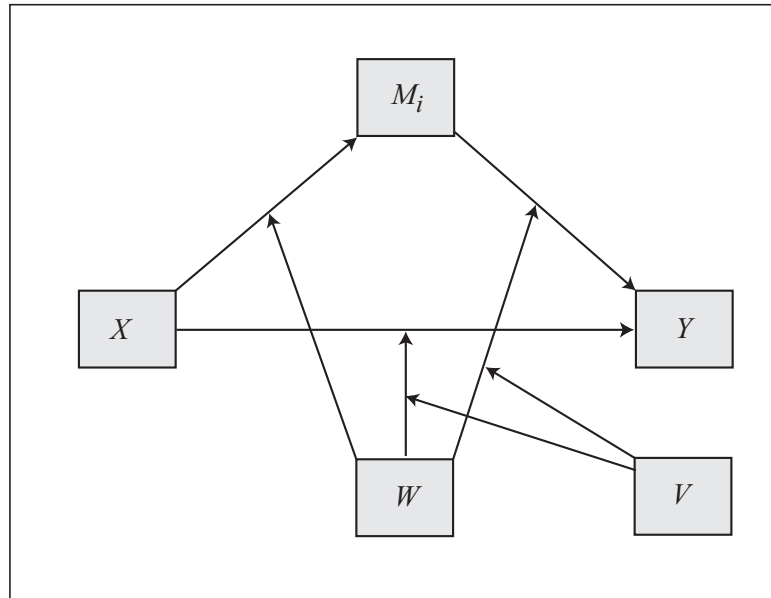
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{4i}W + b_{5i}V + b_{7i}WV)$

Direct effect of  $X$  on  $Y = c'$

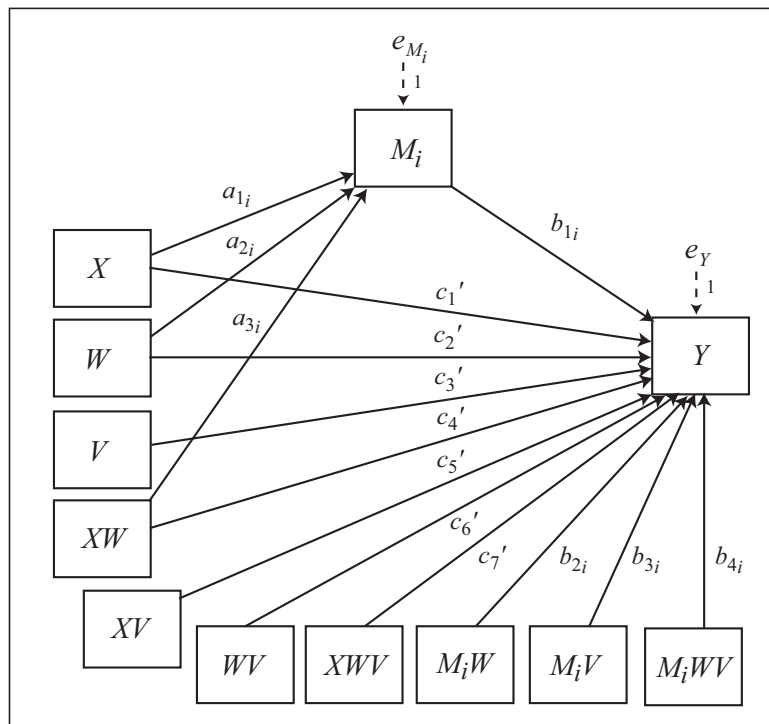
\*Model 70 allows up to 10 mediators operating in parallel

## Model 71

### Conceptual Diagram



### Statistical Diagram



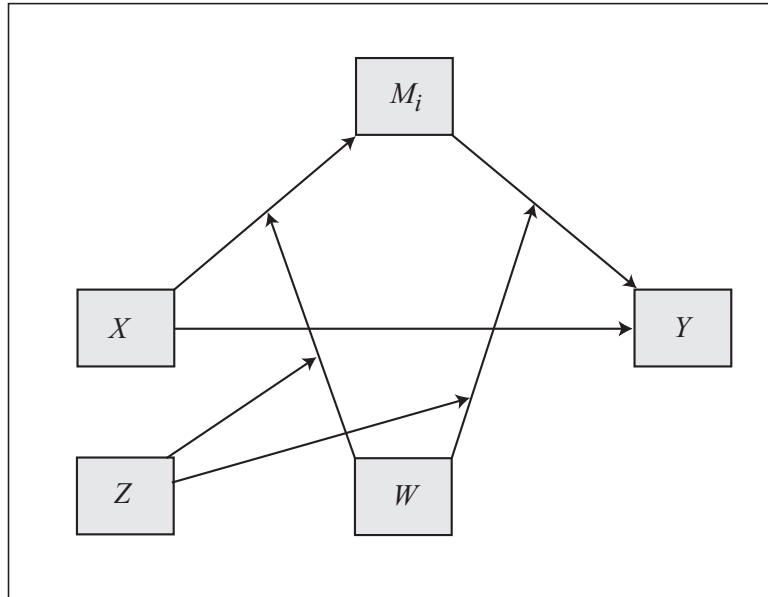
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{3i}W)(b_{1i} + b_{2i}W + b_{3i}V + b_{4i}WV)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_4'W + c_5'V + c_7'WV$

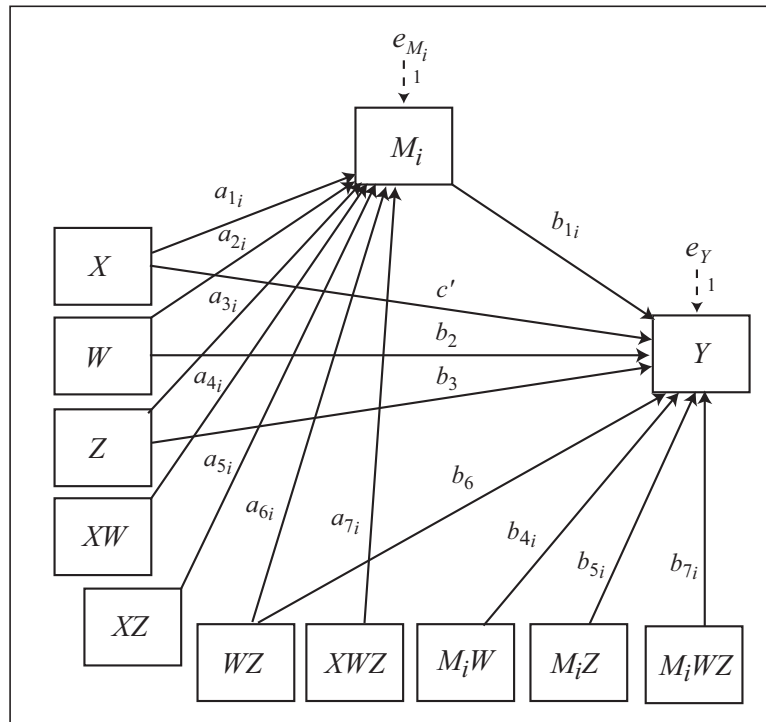
\*Model 71 allows up to 10 mediators operating in parallel

## Model 72

Conceptual Diagram



Statistical Diagram



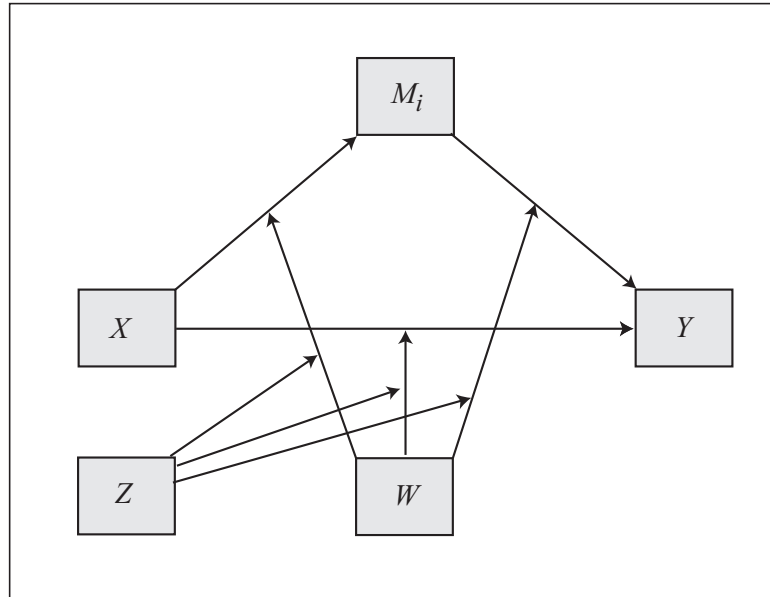
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z + a_{7i}WZ) \cdot (b_{1i} + b_{4i}W + b_{5i}Z + b_{7i}WZ)$

Direct effect of  $X$  on  $Y = c'$

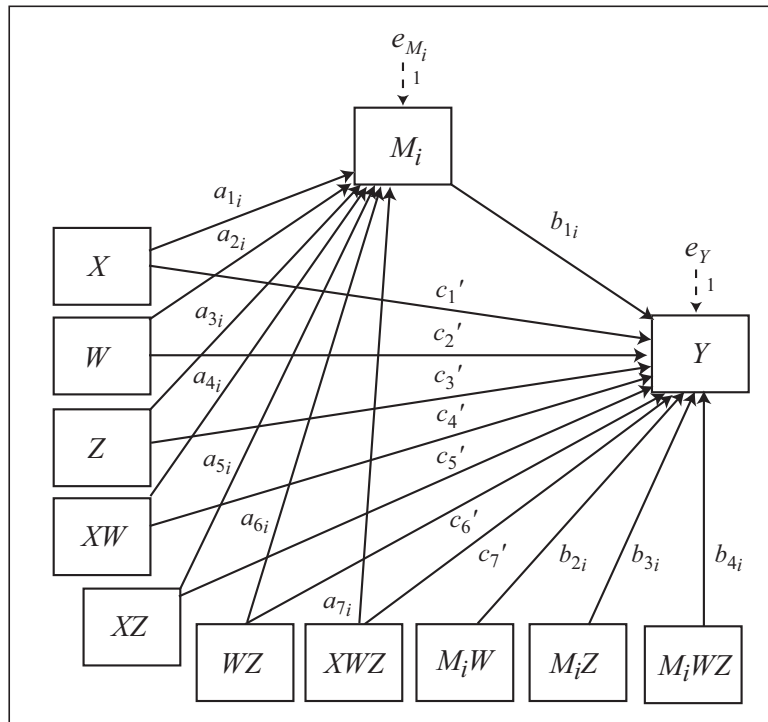
\*Model 72 allows up to 10 mediators operating in parallel

### Model 73

Conceptual Diagram



Statistical Diagram



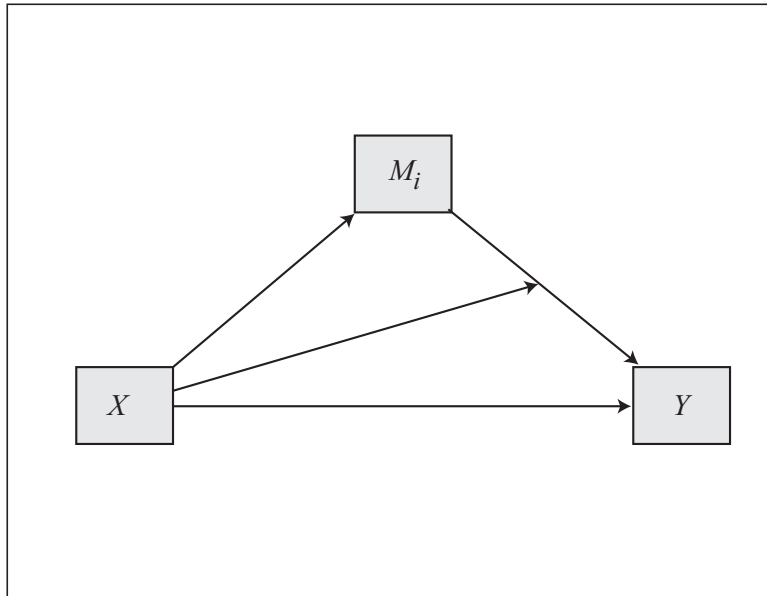
Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z + a_{7i}WZ) \cdot (b_{1i} + b_{2i}W + b_{3i}Z + b_{4i}WZ)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_4'W + c_5'Z + c_7'WZ$

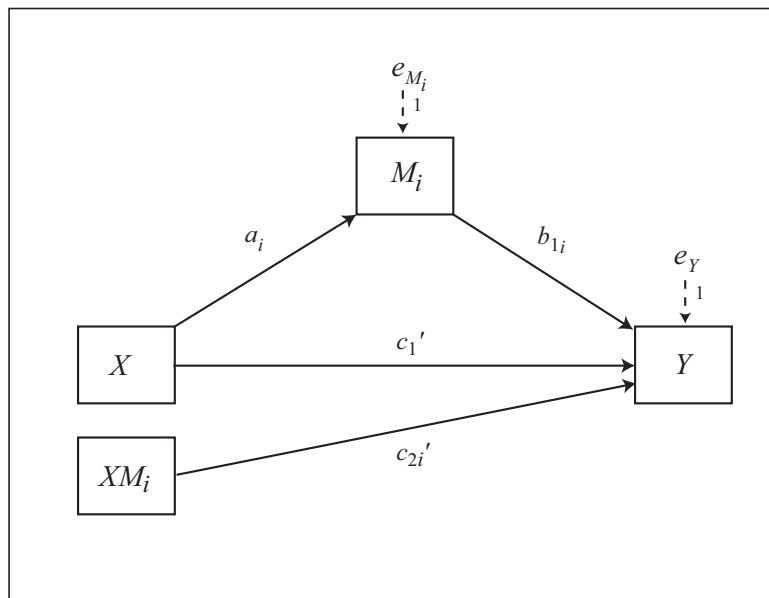
\*Model 73 allows up to 10 mediators operating in parallel

## Model 74

Conceptual Diagram



Statistical Diagram



Conditional indirect effect of  $X$  on  $Y$  through  $M_i = a_i (b_{1i} + c_{2i}'X)$

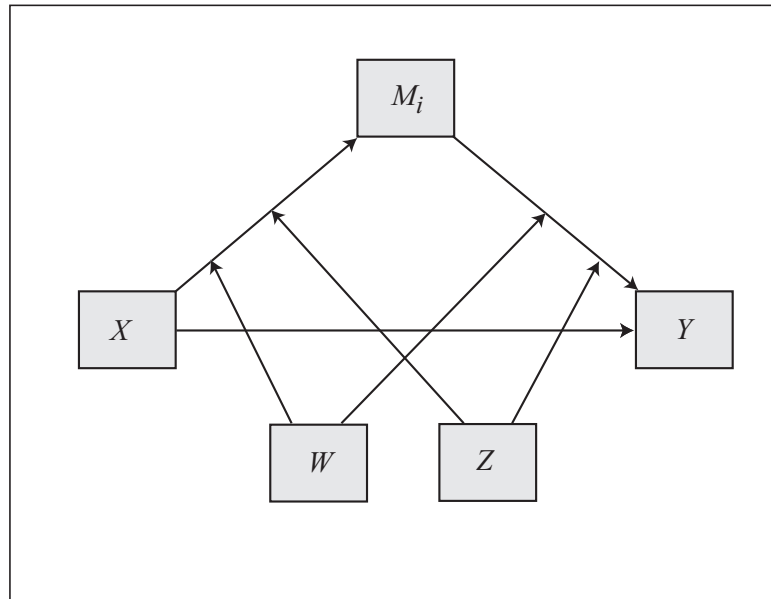
Conditional direct effect of  $X = c_1' + c_{2i}'M$

Note: Model 74 allows up to 10 mediators operating in parallel. PROCESS does not produce a table of conditional direct effects for model 74. With only one mediator, use model 1 to generate the conditional direct effects, specifying  $M$  as *moderator*.

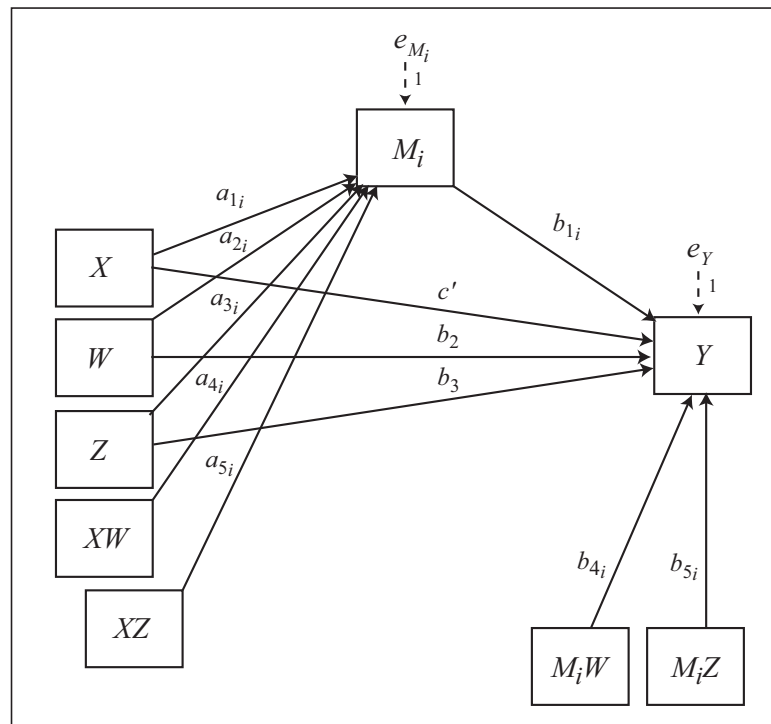
### Model 75

(PROCESS v2.05 or later)

#### Conceptual Diagram



#### Statistical Diagram



Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z)(b_{1i} + b_{4i}W + b_{5i}Z)$

Direct effect of  $X$  on  $Y = c'$

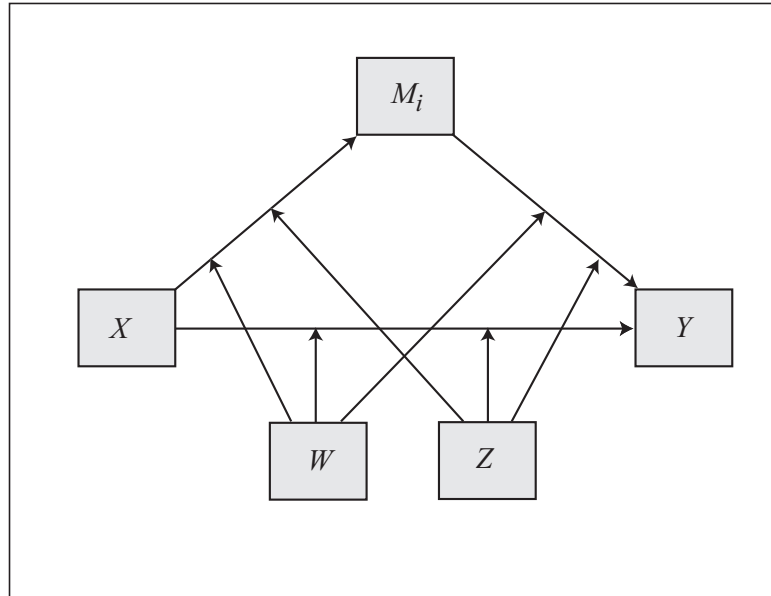
\*Model 75 allows up to 10 mediators operating in parallel



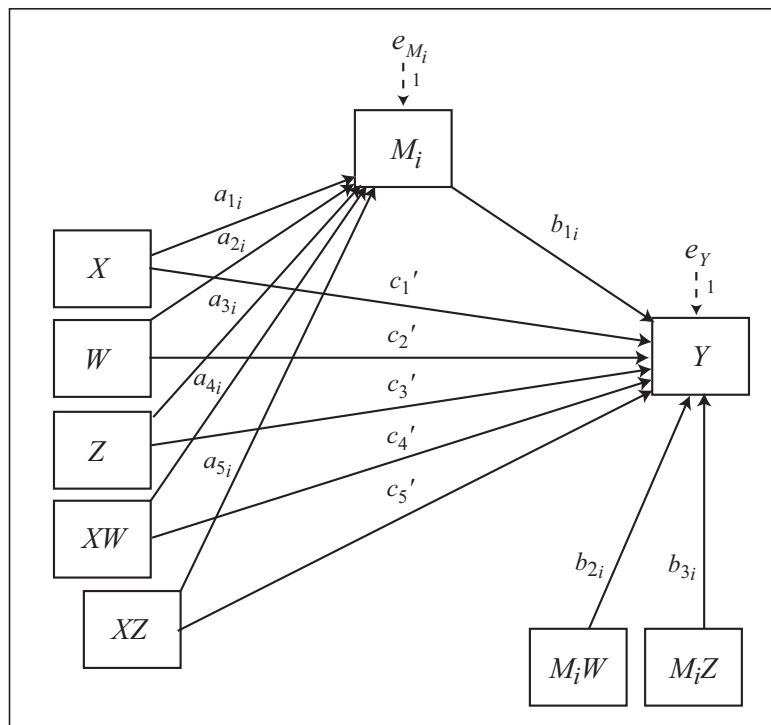
### Model 76

(PROCESS v2.05 or later)

#### Conceptual Diagram



#### Statistical Diagram



Conditional indirect effect of  $X$  on  $Y$  through  $M_i = (a_{1i} + a_{4i}W + a_{5i}Z)(b_{1i} + b_{2i}W + b_{3i}Z)$

Conditional direct effect of  $X$  on  $Y = c_1' + c_4'W + c_5'Z$

\*Model 76 allows up to 10 mediators operating in parallel