

The MacKinnon (2008) book describes the Sobel method and the delta method for the indirect effect  $a*b$  in Section 4.14. See especially page 92. The delta method uses formula (4.27) with an added covariance term between the  $a$  and  $b$  estimates (see second line below 4.27). For some models, such as the mediation model for continuous observed variables, the covariance term is zero so that the delta method simplifies to the formula of (4.27). I believe (4.27) is what is referred to as the Sobel method. Mplus uses the delta method in Model Indirect and also in Model Constraint.

Note that the zero covariance term is exactly zero when the ML estimator is used, but only approximately zero when MLF or MLR are used.