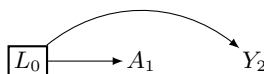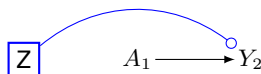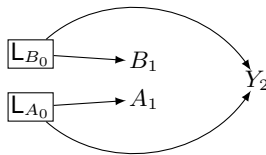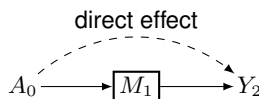| Interest	Causal Directed Acyclic Graph
Treatment effect: after controlling for all common causes, what is the causal effect of $A \longrightarrow Y$?	$\boxed{L_0} \longrightarrow A_1 \qquad Y_2$
Effect Modification (Moderation): does the effect of $A \longrightarrow Y$ vary across levels of Z?	$\boxed{Z} \qquad A_1 \longrightarrow Y_2$
Interaction (joint-intervention): after controlling for all common causes of $A \longrightarrow Y$ and $B \longrightarrow Y$, is the combined effect of A and B on Y different from their individual effects?	$\boxed{L_{B_0}} \longrightarrow B_1$ $\boxed{L_{A_0}} \longrightarrow A_1$ $\qquad Y_2$
Mediation: assuming unbiased confounding control, what are the separable effects of $A \longrightarrow Y$ (a): indirectly through M and (b) directly not through M?	direct effect $A_0 \longrightarrow \boxed{M_1} \longrightarrow Y_2$
Time-varying exposures: What are the causal effects of clearly specified sequential treatments? $\bar{A} \longrightarrow Y$?	$A_0 \qquad A_1 \longrightarrow Y_2$
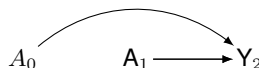
Key:

A denotes the treatment;

B denotes a second treatment (as in interaction analysis).

Y denotes the outcome;

L denotes a confounder;

Z denotes a modifier of for the effect of $A \longrightarrow Y$

$\boxed{X}$ indicates conditioning on variable X.

$\longrightarrow$ asserts causality

$\longrightarrow\!\circ$ indicates an interest in effect-modification (causality need not be asserted);

Note 1: when analysing effect-modification, our focus is on the $A \longrightarrow Y$ pathway, and whether this effect varies within levels of Z; we do not estimate Z's causal effect (if any) on Y. We use the agnostic arrow $\longrightarrow\!\circ$ to denote this specific interest in Z in relation to $A \longrightarrow Y$.

Note 2: interaction analysis requires identifying two causal effects ($A \longrightarrow Y$ and $B \longrightarrow Y$) and controlling for their common causes. Mediation analysis, not interaction analysis, is needed if A and B influence each other ($B \longrightarrow A$ or $A \longrightarrow B$).