STATISTICAL RETHINKING 2025
WEEK 2

1. People get heavier with age. Assume that age influences weight through two paths. First, age influences height, and height influences weight. This is an indirect influence of age on weight. Second, age also directly influences weight through age-related changes in muscle growth and body proportions.

Draw the DAG that represents these causal relationships. And then write a generative simulation that takes age as an input and simulates height and weight, obeying the relationships in the DAG.

2. Using the Howell1 dataset, consider only the people younger than 13 years old. In this sample, estimate the **total** causal effect of each year of growth on weight. What role does height have in this analysis?