

## STATISTICAL RETHINKING 2025

### WEEK 9

The data in `data(Achehunting)` are 14,364 individual hunting trips by 147 men among the indigenous Aché of Paraguay. Each trip has recorded the hunter's identity (anonymized id), hunter's age at the time of the trip, the duration in hours of the trip, and the kilograms of meat returned. Many of the trips have missing values for duration. So will need to decide what to do about those.

1. In this first problem, estimate the influence of age on the probability of trip success. Define “success” as a trip that returns any non-zero amount of meat. Ignore individual hunter identities for now. You can use any functional relationship for age and success that you think is sensible, but be sure to justify it and check it against posterior predictions.

Be careful with how you handle the trip duration variable. If you include it in the model, justify its inclusion causally and also whether or not you can drop missing values. A DAG will help.

2. Now incorporate individual hunter varying effects into your analysis from the previous problem. Allow the influence of age on success to vary for each individual. How much variation in success is explained by individuals and how much by age?