

### **Exercise: This is not an Umbrella**

The issue is whether or not to take your umbrella. If you don't and it rains, then your good clothes (and perhaps your day) are ruined, and your payoff is zero (units of satisfaction). If you don't and the sun shines, then this is the best of all possible worlds, with a payoff of 100 (say). If you decide to take your umbrella, then your clothes will not get spoiled but it's rather a nuisance carrying the umbrella around all day; your payoff is 80, between the other two.

1. Draw your influence diagram.
2. Draw your decision tree.
3. At what probability of rain would you be indifferent between taking your umbrella and leaving it at home?
4. What if the payoff to carrying your umbrella were 60 instead of 80?
5. Before deciding, you consider listening to the weather forecast on the radio. Draw an influence diagram that considers the weather forecast.