

In the Temporal condition, participants learned that one symptom follows the second which follows the third symptom. In order to ensure participants understood that the temporal relation was not causal, the following instructions were provided:

Scientists have found that symptoms **F**, **P**, and **J** are associated with disease **Betox**. In addition, the scientists have found that a symptom **follows** another symptom although there is no causal relationship between the two symptoms. Here's what we mean by the 'follow' relationship. When you go to a restaurant, for example, you first sit at the table and this follows ordering food. However, this does not mean that your sitting at the table caused you to order food. It's just that one event followed the other. In the case of the above disease **Betox**, the scientists have found the following relationship. Although symptom **P** does not cause symptom **J**, symptom **J** follows symptom **P**. That is, patients with **Betox** disease display symptom **J** after they display symptom **P**. Also, although symptom **F** does not cause symptom **P**, symptom **P** follows symptom **F**. That is, patients with **Betox** disease display symptom **P** after they display symptom **F**.

Next, participants in the Temporal condition received a figure similar to the one in Figure 2 with the labels, "is caused by," replaced with "follows."

In the Dependency condition, participants received similar background information as in the Temporal condition except that the relation specified was a general "depends on" relation introduced with the following example: "We are more likely to see a mustache when we see a mouth than when we do not see a mouth. We clearly know that the presence of a mouth does not cause the presence of a mustache. However, the presence of a mustache depends on the presence of a mouth." Then, participants received a figure similar to Figure 2 with the labels "is caused by," replaced with "depends on."

In each condition, participants received two problems describing a patient with one missing symptom. The two problems differed in the position of the symptom in the dependency structure although the control condition had no dependency structure, so this distinction was not made. One problem described a patient missing a feature that was more central (the other features depended on it). For example, in the Temporal condition, a patient was missing a symptom that occurs first. This problem will be called Central Missing. The other problem (Peripheral Missing) described a patient missing a feature that was least central (no other features depended on it). For example, in the Temporal condition, the missing symptom was the one that occurs last.

Procedure

Participants were instructed that they would receive some background knowledge about symptoms associated with new diseases that scientists had recently observed. They were told that for some of the problems they would also be given some information about how these symptoms were related, and their task was "to judge how easy it is for you to imagine a person with the disease who displays only a certain set of symptoms." They were told to respond on a 9-point scale with 9 being "very easy to imagine" and 1 being "very difficult to imagine."

All participants received all four sets of problems. The order of the four sets was randomized for each participant. Of the four sets, two sets presented the Central Missing prob-