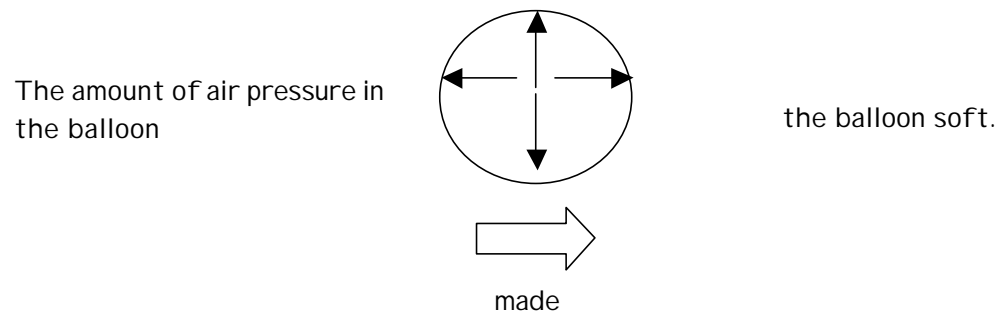
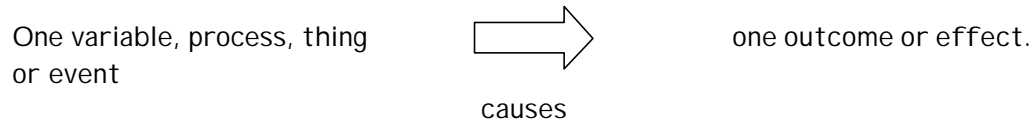


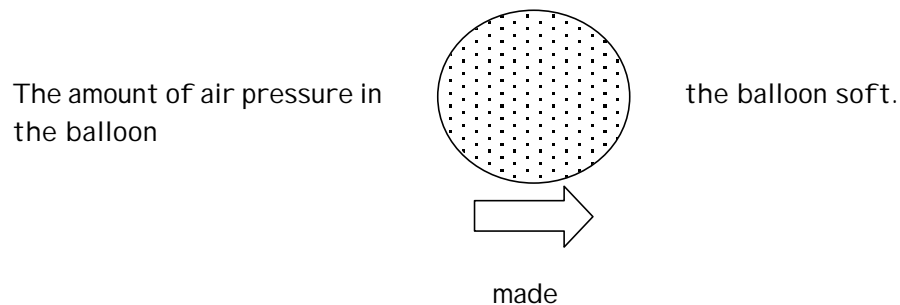
Thinking About Relational Causality

We often analyze problems by using a *simple linear causality*. We say that one thing made another thing happen. One thing or event is the cause and it directly leads to one effect. For example, we might say, "the amount of air pressure in the balloon made the balloon soft."

Simple Linear Causality



(This linear causal model uses arrows to show pressure in the balloon.)



(This linear causal model uses dots to show pressure in the balloon.)

However, scientists don't usually think about cause and effect in such a simple way. They use different forms of causality for different situations. When explaining air pressure, they often use a *relational causality*.

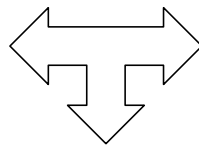
Here is a social example to help you see how a relational causality works:

Two girls can be sisters, but neither girl alone is the "cause" of being sisters. It is the relationship between the two that "causes" them to be sisters. Comparisons can be made about the relationship. For example, you can say that one sister is older and one is younger, but it only makes sense in terms of the relationship, in comparing them to each other.

A relational causal explanation of the balloon sounds like this: For instance, the molecules that make up the air in the balloon are “pushing out” AND the molecules that make up the air outside the balloon are “pushing in.” Scientists talk about it in terms of the relationship between the air pressure inside and outside. They compare areas of higher pressure and lower pressure. For example, a balloon appears squashed if the air pressure on the outside is higher and the air pressure on the inside is lower. The “cause” is not due to a low pressure inside the balloon or a high pressure outside the balloon, but the two taken together; the cause is due to the difference or relationship between the two pressures.

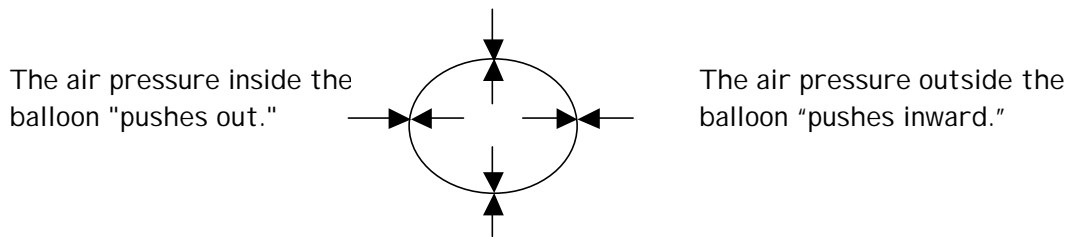
Relational Causality

One variable,
process, thing or
event.



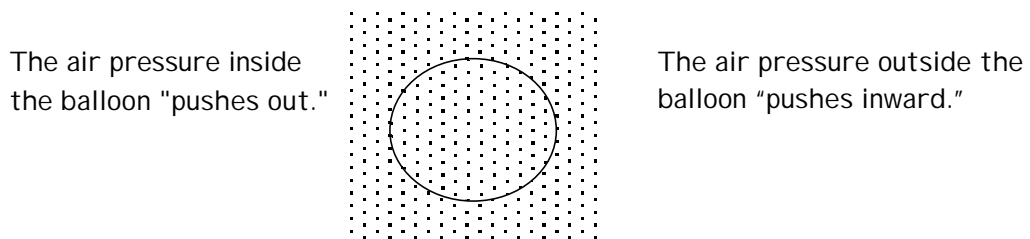
Another variable,
process, thing or
event.

Effect or Outcome



The effect is that the balloon has a
certain size and shape.

(This relational causal model uses arrows to show pressure in the balloon.)



The effect is that the balloon
has a certain size and shape.

(This relational causal model uses dots to show pressure in the balloon.)

In relational causality, the effect is caused by the relationship, and no single variable, process, event, or thing is the cause by itself. If you focus on only one part of the relationship, you lose important parts of the story.