

Pre-lecture Notes III.1 – Collecting Correlational Data

Experiments – by definition – require some level of control. The independent variable must be a manipulated variable and, in the ideal case, everything else is either held constant or forced to be equal on average across the conditions. This is why they are often conducted in a laboratory. To have this level of control requires a setting where control can be exercised. One down-side of this, however, is that laboratories do not (often) resemble everyday life, so you must rely on something called “external validity” to take your findings from one situation and apply them to elsewhere. And, as you’ll see, we don’t like to rely on external validity.

Correlational studies, in contrast, do not require control. There is no manipulated variable; things are observed as they naturally occur. There are several downsides to this (as we’ll see next week), especially with regard to using the results to make statements about causation. However, one of the up-sides to this approach is that correlational studies do not have to be run in a laboratory and usually aren’t.

In general, there are two ways to collect correlational data: you can ask the subjects questions and record their answers or you can watch them and write down (or video-tape) what they do. Each of these general methods has two main sub-types. When you ask the subjects questions, you can either have them fill out a questionnaire on their own or you can ask them the questions in person. These are probably best thought of as ends of a continuum with the most extreme version of the former being a web-based survey and the most extreme version of the latter being a free-flowing (non-structured), face-to-face interview. As you will see, there are times and places where different points on this continuum are the best way to go. The trade-off is between reactivity (especially evaluation apprehension) and something new:

Experimental Realism – *the extent to which the subjects take the experiment or study seriously*

Depending on the questions being asked, either reactivity or low realism will be the larger problem (i.e., the main threat to some type of validity), which will push you in one direction or the other on the web-based vs. face-to-face continuum.

When you collect your data by watching people, there are, again, two options, but this is a one-or-the-other choice. You either observe the subjects without interacting with them, which is called “naturalistic observation,” or you observe them while also getting directly involved, which is called “participant observation.” Each of these methods has its own advantages and disadvantages. The advantage of naturalist observation is that there is much less chance for something like experimenter bias to occur; the advantage of participant observation is that it allows you see what people do in less-public situations.