

2.2: Internal and External Validity

Developing a research design should be more than just a matter of convenience (although there is an important element of that which we will discuss at the end of this chapter). Not all designs are created equally and there are trade-offs we make when opting for one type of design over another. The two major components of an assessment of a research design are its internal validity and its external validity. **Internal validity** basically means we can make a causal statement within the context of our study. We have internal validity if, for our study, we can say our independent variable caused our dependent variable. To make that statement we need to satisfy the conditions of causality we identified previously. The major challenge is the issue of **spuriousness**. We have to ask if our design allows us to say our independent variable makes our dependent variable vary systematically as it changes and that those changes in the dependent variable are not due to some third or extraneous factor. It is worth noting that even with internal validity, you might have serious problems when it comes to your theory. Suppose your hypothesis is that being well-fed makes one more productive. Further, suppose that you operationalize “being well-fed” as consuming twenty Hostess Twinkies in an hour. If the Twinkie eaters are more productive those who did not get the Twinkies you might be able to show causality, but if your theory is based on the idea that “well-fed” means a balanced and healthy diet then you still have a problematic research design. It has internal validity because what you manipulated (Twinkie eating) affected your dependent variable, but that conclusion does not really bring any enlightenment to your theory.

The second basis for evaluating your research design is to assess its **external validity**. External validity means that we can generalize the results of our study. It asks whether our findings are applicable in other settings. Here we consider what population we are interested in generalizing to. We might be interested in adult Americans, but if we have studied a sample of first-year college students then we might not be able to generalize to our target population. External validity means that we believe we can generalize to our (and perhaps other) population(s). Along with other factors discussed below, replication is key to demonstrating external validity.

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