

Psychology 312: Lecture 19 Naturalistic Observations & Correlational Studies

Slide #1

Naturalistic Observations & Correlational Studies

Audio:

This lecture will discuss naturalistic observations and correlational studies.

Slide #2

Outline

- Naturalistic Observations
 - Functions/Uses
 - Validity Concerns
 - Advantages & Disadvantages.

Audio:

In doing so we will begin with a discussion of the functions and uses of naturalistic observations. Particularly relate why correlations might be combined with a naturalistic observation. We will then talk about specific validity concerns most closely associated with naturalistic observations. Then conclude with advantages and disadvantages of this particular design approach.

Slide #3

Two Functions/Purposes

- Acquire knowledge where little is known.
 - Simply observe behavior in its “real” environment.
 - Provide a general, detailed description of a phenomenon.
 - EX: Rosenhan (1973)
 - 8 healthy individuals claim to “hear voices”
 - Admitted? For how long?

Audio:

Naturalistic observations are often selected for two broad purposes or functions. The first of these is a situation where the researcher wishes to acquire knowledge where very little is already known. In this case the goal is to simply observe behavior in its real environment and collect enough data as to provide a general detailed description of the phenomenon. For example in 1973 David Rosenhan was interested in examining the power of stereotypy and the accuracy in the diagnosis of mental illness. To do this he recruited eight healthy individuals and asked them to feign mental illness by claiming to hear voices. The individuals were instructed to approach intake staff at five different facilities located throughout the different country and based on this limited symptomology to determine if the individual would be diagnosed with a mental illness and if so institutionalized. If institutionalized how long would they stay actually be. Rosenhan found that all eight were identified as mentally ill and diagnosed with a general label as schizophrenia. Once admitted their average time at the institution was 19 days even though they were instructed to behave normally once they had been admitted to the institution. One of the conditions of their release in all cases was to acknowledge their diagnosis of schizophrenia and to be labeled as schizophrenic in remission upon release from the institution. This study was

highly influential in that it called into question first the accuracy of the diagnosis of schizophrenia and second the idea that once an individual was identified as mentally ill that was a condition from which he or she could never fully recover.

Slide #4

Two Functions/Purposes

- Gain initial insights regarding possible patterns or lawful relationships.
 - Combine with correlational design.
 - Statistically examine possible associations between pre-existing variables to determine if changes in one variable are correlated with changes in another.
 - ✚ No IV
 - ✚ No conclusions about cause-effect relationships
 - EX: Weather Temperature & Beverage Consumption

Audio:

The second function or purpose of the naturalistic observation is to gain initial insights regarding possible patterns or lawful relationships between variables. This can be done by combining the naturalistic observation with the correlational design. In a correlational design the researcher statistically examine possible associations between pre-existing variables to determine if changes in one variable are correlated with changes in another. Recognize that there is no formal independent variable in this design. That is to say there is no variable which the researcher is deliberately or intentionally attempting to manipulate. As a result one cannot draw cause and effects conclusions based on correlation data. The best the researcher can do is say that changes in one variable are associated with changes in another variable. Let's think about this in a concrete example. Imagine that we believe that there is a relationship between weather temperature and beverage consumption. Specifically we believe that as outdoor temperatures increases the consumption of beverages changes. On hot days people are more inclined to consume cold beverages and on cold days people are more inclined to consume hot beverages. We plan to test this particular hypothesis by sitting at a local restaurant and simply recording the rate of consumption or purchasing of hot and cold beverages on days that differ considerably in terms of temperature. If in fact we can show that as outdoor temperature increases the rate of consumption of cold beverages also increases then we have demonstrated a correlation between those two variables.

Slide #5

Validity Concerns

- Issues with data collection:
 - Challenge of unobtrusive observation
 - ✚ Concealing yourself as researcher.
 - To avoid "Hawthorne Effect" or other reactive behavior

Audio:

In a naturalistic observation there are a number of validity concerns that relate to issues of data collections. The first of these is the challenge of unobtrusive observation. What I mean by this is it is important to in a naturalistic observation that a researcher be as inconspicuous as possible. In some cases perhaps even concealing him or herself as a researcher. This is important because we

want to avoid a “Hawthorne Effect” or some other type of reactive behavior. You will recall from previous lectures that the “Hawthorne Effect” occurs when people modify their behavior simply because they know that they are being observed or that their behavior is being recorded. Obviously this potential effect under minds the primary goal of the naturalistic observation, which is to record behavior as it is occurring in its normal circumstances or in the real world.

Slide #6

Validity Concerns

- Issues with data collection:
 - Accuracy of observations
 - Selective attention to specific aspects of behavior or the situation.
 - Expectations influence perception & observations
 - Reduce these problems with...
 - Pre-training before data collection
 - Multiple observers
 - Double-blind arrangement.

Audio:

There are additional validity concerns related to the accuracy of the observation being made by the researcher. For example selection attention to specific aspects of the behavior or the situation may lead the researcher to make observations that are not entirely accurate or at the least incomplete. This is most likely to happen when the researcher has specific expectations and those expectations in turn influence his or her perception and observations. There are a number of strategies that can be used to reduce these types of problems and they include things like having considerable pre-training for observers before data collection actually begins. The use of multiple observers to record the same behavior and finally the use of the double blind arrangement. In a double blind arrangement neither the individual recording the data nor the participants in the actual study are aware of the true nature of the study itself.

Slide #7

Validity Concerns

- Issues with data collection:
 - Boredom by researcher
 - Affects attention, perception, & reliability of observations.
 - Reduce likelihood with “refocusing” exercises.

Audio:

Closely related to the previous validity concern is the issue of boredom by the researcher. This potential problem is not unique to the naturalistic observation. However because this particular approach often includes data collections over a long period of time it is a potential problem. Boredom on the part of the researcher can affect his or her attention, perception and or the reliability of the observations he or she makes. Typically this particular problem is reduced by having the researcher engage in repetitive refocusing exercises that occur intermittently throughout the data collection period.

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Validity Concerns

- Issues with data collections:
 - Data recording
 - Need clear operational definitions
 - Specific & focused (don't try to record too much)
 - Immediate- do not rely on memory
 - Video &/or audio recordings

Audio:

A final set of validity concerns relates directly to data recording. In a naturalistic observation it is very important that a researcher have a clear set of operational definitions for the behaviors that are the focus of this study. Those definitions will be crucial for accurate data recording. In addition the behavioral observations should be specific and focused. By this we mean that a researcher should not attempt too many types of behaviors all at the same time. Doing so will likely result in poor recording of any one behavior. In addition observation should be a mediate and data collection should follow immediately after those observations. The researcher should not rely on memory and look backward in time to try to recall observations and then record at a later time point. Finally related to that often times a naturalistic observation if possible will use things like video and or audio recordings to help to insure validity checks could be put in place so that multiple observers can watch the same behavior at different times, record it and then their observations can be compared for accuracy.

Slide #9

Advantages of Naturalistic Observations

- Describe behavior under “real life” conditions.
- Observe how behavior unfolds over time in its natural setting.
- Collect information that can become the foundation for forming a testable hypothesis.

Audio:

Despite these validity concerns please recognize that there are a number of advantages of the naturalistic observations. As we have mentioned previously the primary advantage of this design arrangement is that it allows us to describe behavior under real world conditions and in addition see how that behavior unfolds overtime in its natural setting. These are goals that often times can simply not be addressed in a laboratory setting where the artificial nature of that context often encourages participants whether consciously or unconsciously to behave in a manner that is not entirely authentic. The other big advantage of the naturalistic observation is that it is often times used as a jumping off point. What I mean by that is that this design arrangement can be used to collect information that eventually becomes the foundation for forming a testable hypothesis that can then be addressed with some other design arrangement. In total this means that the naturalistic observation can work hand in hand with other experimental strategies to eventually provide an overall picture of a particular type of behavior.

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Disadvantages of Naturalistic Observations

- Qualitative, not quantitative
 - Does not provide information about how one variable influences/affects another.
- Subjective judgment of the researcher(s).

- Limited representativeness of sample
 - May be inappropriate to generalize if you don't examine behavior under a variety of contexts.
- Cannot get informed consent.
 - Is this unethical?

Audio:

In addition to those advantages there are some disadvantages or limitations associated with naturalistic observation. Specifically remember that this particular approach provides qualitative, but not quantitative data. By this we are saying that it cannot provide information about how one variable influences or affects another variable as is the case in the experimental design. In addition we have possible problems related to the subjective judgment of the researchers in the study and possible limitations in terms of the representativeness of the sample being studied. It may be inappropriate for the researcher to generalize his or her observation about the behavior depending upon the variety of context in which that behavior is examined. Finally we have the issue of informed consent. By ethical standards informed consent refers to the idea that participants are able to freely volunteer to participate in a study. However in a naturalistic observation participants may not even know that they are participating in a study. As was the case in the Rosenhan study mentioned previously in this lecture and might be the case in our hypothetical correlation study that examined the relationship between weather temperature and beverage consumption. This is a very complicated issue and one we will not resolve here, but one I promise we will discuss in greater detail in a later lecture. At this point I want you to simply to keep in mind that the issue of informed consent sits in the center of an ethical discussion about naturalistic observations.

Slide #11

Next Lecture

- That concludes this lecture
- Next we will discuss "Survey Research."

Audio:

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