

5 minutes of research philosophy

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Cartoon from Chrismadden.co.uk

When engaging in research, the research paradigm is one of the more critical choices a researcher will make. This is due to each research paradigm being more suited to different types of research, questions, hypotheses, and methodologies. While there are many methodologies that may be chosen from, each paradigm tends to be focused more towards certain methods and approaches.

One of the reasons for why a person should know this, is that when a journalist or media personality cites research, being able to analyze that research in the

There are many ways to do research, many topics to approach, many ways of approaching those topics. The two branches of research I'm going to look at today are phenomenology (also called interpretivism) and Positivism.

Positivism

Throughout history, most research has been done using the Positivist perspective and it is a method very much suited for the pure sciences. It tends to be highly quantitative, based on empirical evidence, replicability, validation and hypothesis testing plays a major part, in pretty much all research done using positivism.

Due to its roots in pure science and engineering, the methodology tends to concern itself with “*how*” rather than “*why*“. We know that Newton's laws exist, the boiling temperature of water and how a human body tends to react to various infections. Positivist research thus has a tendency to be good at predicting “*What will happen if*” but can say very little about why something happens.

One of the major benefits of positivist research done well, is that it can be used to predict what will happen through having a knowledge of how the variables interact. This serves as a major source of credit for this type of research. When compared to phenomenology, it also tends to utilize much larger sample sizes, and therefore the knowledge obtained from the research is more likely to be generally applicable to a larger population.

A common example of positivism in action is demographics research and research conducted by most governmental bodies. For instance the DOJ crime research, FBI crime research and the Office for National Statistics (UK) are all examples of positivist research using large sample sizes, concerned with what is happening, with little concern for why this is happening.

Phenomenology

To address the inherent weaknesses of positivism, phenomenology was invented. This method is frequently used in the social sciences, and often forms the backbone of social science research. The main reasoning being that the rigid, variable oriented, and hypothesis focused approach of positivism is not suited to investigate situations involving humans, because there are too many complex variables involved in a lot of the cases.

This comes from the fact that in social sciences especially, the question of “*why*” becomes more central to

the thinking of the researcher. Rather than attempting to establish the earning differential between men and women as a positivist would do, the interpretivist wants to know why it exists.

The weaknesses of phenomenology can include a high degree of the researcher interfering with the sample, for instance by interacting with the people who are being observed. Frequently this is by design as the researcher embeds him or herself with the sample. Unlike positivism that tends to produce “*mind-independent*” information, research done using phenomenology may frequently be influenced by the subjective mind of the researcher. Due to common research methods such as structured interviews or case studies, the sample will be quite small, and data may not be applicable to the general population.

Also, unlike positivism that to a lesser degree may be influenced by the “*wants*” of the researcher, positivist research has a major issue with researcher influence, but also from research being designed in a manner that it would confirm the researchers initial perspective. If a chemist had an initial perspective that if you mix copper and arsenic you get an explosive, this would rapidly be proven as wrong by simple experiment. However, if a positivist has an initial perspective that sexism is rampant within the western world, it would be easy to manipulate the research to show just that. Picking biased samples, limiting the data sets, influencing the sample, and so on.

Summary and Conclusions

So, to summarize, the main risk with positivism is that the research done using it as a philosophical framework in social sciences research is that it may miss relevant variables, due to the impersonal nature. A somewhat reductionist view is that for a positivist, that which cannot be observed and quantified does not exist.

However, when applied properly and for suitable research, the conclusions made by a positivist research project are generally applicable to the general population, leads to the discovery of new facts and can allow the construction of a framework for predicting events.

The main risk with phenomenology is that the research may include the wrong variables, it may seek to come up with conclusions based on faulty data or small sample sizes. It may be highly subjective and, is less replicable. The main risk with phenomenology, is that in the worst cases, it becomes a case of “*Cecilia down in accounting told me that Todd from shipping has been sleeping with Joanne in billing, it’s a fact I promise, I’ve done my research*”

Thus, a research based in phenomenology, is generally less applicable, may suffer from subjective or other forms of bias, and is very prone to affirming the consequent.

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