



BEHAVIORAL METHODOLOGIES

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Received: 📅 February 02, 2024

Published: 📅 February 26, 2024

Abstract

This article addresses the antagonism between the hard sciences and “soft” social sciences. It is suggested that the name social sciences be changed, and the level of acceptance be reexamined. Further, the findings should be reported at the level of discovery for the social sciences (necessary but not sufficient), and the level of verification for the hard sciences (consistently valid and reliable.) Natural and social sciences has been used, the author believes that this rebranding is not sufficient to change attitudes and behavior of “hard core” hard scientists.

Introduction

The author affirms that the social sciences are “soft” sciences. They are needed more than ever. However, they need to change their name to Behavioral Methodologies, or related. This article will discuss and defend the name change. Social sciences include psychology, political science, and sociology. It even includes economics which is near the Rubicon. Although, it is probably the most demanding discipline, it still deals with the interaction of people. The population is generally non-rational. Thus, it cannot be thought of as science or hard science (1).

Description

Both terms (hard and soft) were originated by Comte around 1858. (2) It was based on intellectual development and complexity of the subject. Other modifications were relative to productivity (3,4) and with the analysis of the degree of mathematics and related needed by the hard sciences. (5) He found differences in those hard sciences had more continuity and consistency favoring the hard sciences. (6) a researcher found more ratios based graphing in the hard sciences. Professors discovered (7,8) more distinctions that favored the hard sciences. Another demonstrated that a number of published social sciences findings can be false. (9) Multiple regression is a difficult social science strategy that is thought to be

lacking in reliability. /10 Funding has been dramatically decreased for the social sciences. This is very unfortunate as it still needs support in improving research.

Discussion

The Science Council (10) noted that the hard sciences were superior to the social sciences by objective observations, evidence, experiment, induction, repetition, critical analysis, verification and testing. Importantly, the social sciences may find difficulty in establishing A) a zero base line B) equidistance between numbers C) ability to add, subtract, multiply and divide D) consistent outcomes after replication. (11). Further, the hierarchy of nominal, ordinal, interval, and ratio are not always clear (12) it was discovered that treating ordinal and interval the same found no difference. That can be argued as a strength or weakness. However, it could be thought as a unifier in the years to come. (13) Last, sociologist (14) indicated that new social science findings should be treated as “discovery findings.” That means that the information gathered and tested was like intervening material. It was necessary, but not yet sufficient. The verification level was described as information that was consistent in almost all the data gathered which is much larger. That means valid and reliable appears to be an area that is more likely to be a hard science.

Unfortunately, funding has been severely cut when we are at a stage of blending disciplines together. That means that both hard and soft analysis is needed to unearth complexities that cannot be tested alone with just the hard sciences. The behavioral methodologies are more likely to deal with heterogeneity. (15) let's take a parking lot outside of a school. How many students generally need to park? Do they drive micro cars or big SUV's. Do the width and length cars remain consistent over the years? How many are bused to school and how many walk? Will enrollment dramatically increase or decrease. Can you bring all those numbers together and treat them as the same or as "one?" There are numerous variables and they are soft and changeable. Thus the behavioral methodologies are mixed with the hard sciences. Behavioral Methodologist usually know if the power of the answer comes from a Likert or a Thurstone scale or index. Both are not ratio, therefore the numbers used soften the results. This may have a soft score, but you may not be able to add all the various measures together to give a whole number compared to another system. Physicists may complain about aspects of social science but if they do nothing, traditional journalism will briefly interview a few who may or may not be representative of the whole of the population located in the area being studied. Surely, they may be humbled a bit, but the story or findings are necessary but not necessarily accurate. Journalism is so important for the introduction of an event, but the Behavioral Methodologies can add to the story and there may be a day when Science and Behavioral Methodologies come together, and do not nullify the other. They become a synergistic enterprise. Soft and hard sciences may soon be translated into Behavioral Methodologies and Science (16).

Summary And Conclusion

Research will continue and borrow from both the hard and soft sciences. It is important to note that they can complement each other, but the name social sciences are misleading. Science is a prestigious term, but it does not qualify for areas of hard to define and measure that are usually left to the soft sciences. Thus the name changes to BEHAVIORIAL METHODOLOGIES. Education requires both. This will be discussed at a later date. The goal is synergism.

The softer strategy is necessary, but not sufficient to answer some of problems. (17).

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DOI: [10.32474/OAJCAM.2024.05.000209](https://doi.org/10.32474/OAJCAM.2024.05.000209)



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