

# Navigating The Logic of Comparison: Strengths and Weaknesses

**Ernest Darkwa**

Erasmus University Rotterdam, Netherlands

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**Abstract:** This paper explores the logic of comparison and the comparative method, considering its strength and weaknesses. The Methods of Agreement and Disagreement have been addressed considering the MDSS and MSSD. From the paper, it has been noted that comparison has a potential of comparing countries, societies, institutions and groups across the world. It looks at selection of specific units instead of others thereby abstracting such units within the context where it becomes embedded. As such, the comparative method with its logic of comparison should bring into light the issue of awareness and not just consider it as if it is a system without errors and problems of analysis. Furthermore, a significant point that has to be considered is given attention to the peculiarities of certain societies, regions, groups or countries when using comparative method in order to show the multiple and complex facets of the economic, political, cultural and social system. The comparative method as discussed enable researchers to move away from just barely describing activities, units, processes and trends to a more analytical system, which explains a wider empirical perspective within comparative political, social and economic study by looking at the similarities and dissimilarities that define and explain certain variables and cases. The MDSD and MSSD may be employed in comparative study, but should be used appropriately considering the variables and cases selected, as well as the level of similarity and differences existing, critically examining the context and available explanatory and causal relations and factors.

**Keywords:** Agreement, Analysis, Cases, Comparison, Difference, Method, Variables, Comparative Method.

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## INTRODUCTION

The comparative approach of research is employed widely in the social sciences. Lijphart (1971) defines comparative method as “the analysis of a small number of cases entailing at least two observations, yet too few to permit the application of conventional statistical analysis”. Comparative method seems to be very evolving than ever and with regards to this, contemporary comparative study is seen in many fields, from comparative study of workings of countries to analysis of value systems and governance (Droogers, 2005; Magun and Rudnev, 2010). Comparison is a mode of scientific analysis which sets out in investigating systematically two or more entities with regards to similarities and differences in order to achieve an understanding, explanation and conclusions (Kocka, 1996:197-8).

In modern times comparative research in relation to cross-national comparative analysis has attracted significant study. In view of this, contemporary social sciences including political science have seen several examples of comparative studies. An example of the phenomenon examined in the area of modernity can be taken from the European revolutions.

With this, numerous significance can be related within this context. For example, Jack Golstone’s *Revolution and Rebellion in the Early Modern World* (1991), and Charles Tilly’s *European Revolutions* (1993). These studies employed the comparative method showing its wide usage. Nevertheless, in recent times there has been a strong renewal of interest in political science looking at power structures and strategies that occur in the entire society at large. This paper employs a qualitative method using relevant existing literature to critically discuss the logic of comparison, looking at the role of variables in linking theory and evidence, cases and case selection, Methods of Agreement and Difference considering the Most

Similar Systems Design (MSSD) and the Most Different Systems Design (MDS). The paper finally examines the strengths and limitations of comparative method.

## **THE ROLE OF VARIABLES IN LINKING THEORY AND EVIDENCE**

Application of comparative method in social science has been significant to the development of theory. In view of this a research question should always be led by a theory or should constitute in itself a reliable answer within an existing theoretical argument (Keman, 2014). Comparative method critically looks at comparing some selected information.

A variable may be defined as a concept that is observed and measured systematically in different situations including countries and over a time period (Keman, 2014). One attribute of a variable is that it enables researchers to understand differences and similarities with regards to a phenomenon which is observed. For instance, in observing a phenomenon like corruption as a dependent variable, the available independent variables will help in understanding the similarities and differences in relation to the phenomenon. An example that can be considered is finding differences between democratic and non-democratic regimes or even between different types of democratic regimes. The extent of the differences and similarities being less or more systematic shows the researcher the plausibility in terms of a theoretical relationship under review (Keman, 2014). In analysing theoretical relationships between two variables without necessarily arguing a causal relationship, typologies are mostly used. In using typologies, the first procedure is to decide what is to be classified with respect to the research question (Keman, 2014). Comparative method enables researchers in investigating relationships of hypothesis empirically between variables. The next section looks at an examination of cases in comparative research.

## **DEFINING CASES IN COMPARATIVE METHOD**

Cases in comparative methods refer to units of observation that are to be compared, such as countries (Keman, 2014). However, it should be noted that the measurement level may be different. For example, comparing individual voters in different countries. Considering the country as the case compared, which indicates the level of analysis with the voter as the unit of observation found within the case.

On the other hand, if we are to compare party governments in a country then we observe that both the case selected and unit of observation lies within the same level of observation. It becomes relevant to note that the number of observations be it large or small indicates the type of analysis that is possible with regards to descriptive inferences, considering availability across cases that come under study (Pennings et al. 2006:11).

The relationship between cases selected and variables used in analyzing research questions is significant in comparison. Case selection process is constructed in the form of a scale. For instance, considering one case that mostly include many variables. We can also consider maximizing number of cases which mostly comes with fewer variables. In most instances, the choice of selection between few or many cases is done with regards to the type of data employed, whether qualitative or quantitative (Collier, 2004: 246). In the next section I discuss the issue of case selection and comparing cases.

## **COMPARING CASES AND CASE SELECTION**

The process of linking theory to evidence mostly involves reducing complexities of the real world in order to analyze the logical relationship between the X and Y variables (Keman, 2014). A researcher needs to take decisions with regard to what is to be compared. Constructing a good research design requires making decisions on cases that are significant and the number of cases that can be selected within a time frame. In responding to this, concerns have been raised regarding selection of cases.

Attention is placed on whether to select many cases with less variables, or few cases that employ many variables (Keman, 2014). Cases serve as a standing point for theoretical argument that underlies the

research design. The research design is therefore directed by the number of cases that are selected. Five options that come with the selection of cases are expressed below.

### **THE SINGLE CASE STUDY**

Single case study approach can be part of a comparative research design (Keman, 2014). However, as a single case is considered it is mostly suited within implicit comparison with its external validity being low (Landman, 2003).

### **TIME SERIES**

Time series also known as the longitudinal analysis is essential for two reasons. It is used in comparing particular configuration regarding fewer cases for checking comparative change. It is also used in analyzing specific factors that become necessary within time as causes (Keman, 2014). Time series may also be useful in reproducing cross-sectional analysis for observing dissimilarities within the outcomes (King et al., 1994:223).

### **CLOSED UNIVERSE**

This is based on using few cases for comparison at varying points of time, considering changes through defining periodic intervals in relation to external events (Keman, 2014). For instance, the processes at the time of the inter war era where some countries of Europe moved away from democracy to dictatorial rule, whilst within other European countries democratic governance continued (Berg-Schlusser and de Meur, 1996).

### **CROSS-SECTION**

This is based on selection of several cases which are simultaneously compared (Keman, 2014). It mostly relates with selection of cases which are more alike than they differ. It decreases variance caused by some other variables that are not measured. This suggests that the circumstances within cases studied are believed to be constant whilst the other included variable tend to vary.

### **POOLED ANALYSIS**

This considers that the number of cases could be maximized through pooling cases across time and space. The shortcoming is that the effects of time is seen as stable almost across all cases, and that changes across cases come with no variation (Kittel, 1999). Comparative analysis therefore faces the challenge that cases are in more resemblance, and as such there are little difference where conclusions may be drawn (King et al., 1994).

### **THE LOGIC OF COMPARISON: RELATING CASES TO VARIABLES**

In comparative method, there are two main research designs which are based on different types of logic. These are Most Different Systems Design (MDS) and Most Similar Systems Design (MSSD). The two designs relate directly in relation to the number and type of cases that are under review and selection of variables with regards to the research question and associated hypothetical answers (Keman, 2014). They are designed in relation to John Stuart Mill's dictum, thus maximizing experimental variance, minimizing error variance and controlling extraneous variance (Peters, 1998: 30).

### **MOST DIFFERENT SYSTEMS DESIGN (MDS)**

This examines a handful of cases that are different as possible, except on the outcome of interest (dependent variable) which is the same. With the difference of cases, it suggests that we control for many alternative explanations. For instance, if one factor is the same between cases, and the outcome is the same this becomes the cause for the outcome. The logic itself does not produce the list of independent variables but it is presumed by Mill that such list already exist (Keman, 2014).

Limitations of the MDS

- [1] "It becomes very difficult in using complicated variable coding". "Therefore, causal factors are hard to determine with external validity being low".
- [2] "Case selection on the independent variable without variation on the dependent variable determining causality is extremely difficult".(Keman, 2014).

### **MOST SIMILAR SYSTEMS DESIGN (MSSD)**

MSSD is "the most common approach to small-N research problem in political science" (Keman, 2014). It examines a handful of cases that are similar as possible, except on the outcome of interest. Similarity of cases here means we control for many alternative explanations (Keman, 2014). For instance, if one factor is different between cases, and the outcome is different, this becomes the cause for the outcome. The nature of the method itself tend to impose high levels of internal validity. The logic of comparison uses variation across cases as the basis of explanation (Keman, 2014). For instance, as X increase, Y increase and as X decrease, Y decrease. For that matter, X and Y become directly correlated (Keman, 2014).

The MSSD also come with some limitations. Below are some limitations.

- [1] "The independent variable is generally treated as something simple (yes or no, for instance)". In view of this, the more complicated the operationalization, the harder this method is to do.
- [2] "Multiple causal factors and causal complexity are hard to determine".
- [3] "External validity also become low with the likelihood of deterministic causality".(Keman, 2014).

### **THE USE OF METHODS OF AGREEMENT AND DIFFERENCE**

"The logic of comparison comes with the focus of assessing relationship between independent and dependent variable regarding number of cases, that is few, many or one case selection" (Keman, 2014). Selection of cases plays significant role and has a crucial impact in using the logics of comparison. The two methods distinguished here are Method of Agreement and Difference. The main focus is that, comparison of cases enables interpretation of differences and similarities between cases and variables. "The logics are kind of descriptive inference that are used in analyzing if or not there exist a relationship of causality between X and Y" (Keman, 2014).

### **METHOD OF AGREEMENT**

Method of Agreement is used in comparing cases with focus of determining relationship between X and Y that is similar, irrespective of dissimilarities in other characteristics of the cases that are compared (Keman, 2014). Some other variables may differ across the cases with the exception of the relationship seen to be the causal one. This mostly refer to the MDSD. For instance, "the analysis of Luebbert in assessing actual causes of regime types at the inter-war era (1919 to 1939)". Luebbert finds the difference between three types of regimes, namely Social Democracy, Liberalism and Fascism (Luebbert, 1991). "The variable X which stands as the explanatory factor of the class cooperation that comes between the working class, the farmers, middle class, and type of regime is the dependent variable Y" (Luebbert, 1991). He concludes that just particular aspects of class cooperation continuously relate the same type of regime across twelve countries of Europe. Many of the variables seen as possible causes in the comparative analysis are not in match with the outcome, that is the regime type in the same direction.

The following shows the Method of Agreement.

(E F G H occur together with a b c d)

(E I J K occur together with a i o u)

(Then 'E' is the cause or the effect of 'a')

For instance, when we look at two countries that are dissimilar in their structure. Country 1 was a former colony with a center left administration under a federal system of administration. Country 2 was not a former colony, uses a unitary form of administration and also has a center left government. A common thing that the two countries have is a health care system which is universal, the dependent variable.

Considering the features about the two countries discussed, a comparative analysis, would look at the center left government feature as an independent variable, that leads to a universal health care system. This is because it is the only feature among those analyzed that goes stable with regards to the two countries. Also, considering the theoretical side of it, the relationship is plausible that a social democratic center left programme mostly consists of a health care programme which is universal.

## **METHOD OF DIFFERENCE**

Method of Difference states that when an occurrence, as well as the non-occurrence of a phenomenon (dependent variable) and circumstances under observation (independent variables) are seen to be the same in all aspects or circumstances, except for one, then it could be observed that the one is the causal factor (Peters, 2003:28). The variable that depicts the exception becomes the cause of the outcome.

The Method of difference looks at the comparison of cases that are different in relation to the dependent variable Y or the independent variable X, and not showing difference across comparable cases in relation to other variables (Keman, 2014:54). The issue of covariation between independent variables and dependent variable is regarded as significant considering the assumption that the context continues to be stable. "This mostly comes with the MSSD in placing variables within the specific dependent variable which shows difference over the same systems towards the outcomes that are observed" (Keman, 2014:54).

The following shows the Method of Difference.

(E F G H occur together with a b c d)

(F G H occur together with b c d)

(Then E is the cause or effect or part of the cause of 'a')

For instance, considering two countries that share similar features. Country '1' has a center right administration or government, was a former colony and operates a unitary system. Country '2' was not a former colony, operates a unitary system and has a center right administration or government. Here the status of each country as a former colony or not will be considered as the independent variable and a dependent variable as support for anti-colonial policies.

The explanation is that looking at the two countries that were compared, the dissimilarity is the fact that, one was formerly colonized and the other was not. An analysis could be made that considering the dependent variable's values, the country that was formerly colonized is more seen to be against colonization compared to the country that was not colonized.

## **ADVANTAGES OF THE COMPARATIVE METHOD**

Comparative method has a potential of addressing the few assumptions of evident that a researcher may have. By looking at events within different contexts, we are able to understand implicit and explicit aspects of particular areas in relation to other areas without basing on our own phenomenon. Within an instrumental level, the outcome got from a comparative study can help in adoption of diverging methods of improving a society's affairs and ensure efficiency (May, 1993:157).

Comparative method helps to understand dissimilarities within units that are similar. For instance, the comparative analysis of the modern western welfare states by Esping-Anderson shows this (Esping-Anderson, 1990). Esping-Anderson with this comparative study, "sought to find the main dissimilarities within these societies that were seemingly similar considering basic features that united them and others that showed distinction". Looking at a number of data and focusing on welfare states like social democracies, liberal and conservative, he was able to indicate how varying welfare states have emerged due to their distinct processes of history (Esping-Anderson, 1990).

Comparative method helps in "showing causal generalizations in relation to theory. Comparison is not just about identifying similarities and dissimilarities, but it is used in extracting understandings within

causal relationships that makes up differences and dissimilarities" (May, 1993:157). Through comparative analysis the actual understandings within causal trends and relationships are established.

## **PROBLEMS WITH THE COMPARATIVE METHOD**

A major limitation with the comparative method is the problem of choice of units to be compared. Choice of units is relevant in making good analysis. The results of comparison tend to depend on choice of units, and therefore requires a critical attention. Researchers and social scientists have pointed out this with much research on it. Kocka (1999:49) argues for "a critical attention to the effects of units selected for comparison and states that in most instances alternating units compared may ensure quality and limit errors". Furthermore, a limitation comes with getting reliable and valid data with regards to selected cases in testing theoretical relations. This is very necessary because when critical attention is not given, it tends to affect quality of the outcome. Social scientists are pushed to stretch their concepts in order to extend to other areas towards raising number of observations within many cases (Keman, 2014:56). Conceptual stretching may also limit comparative method. "Conceptual stretching looks at distortions that come as a result of broadening a concept made for a set of cases to other cases that the characteristics of the concept do not have the same application with" (Keman, 2014:56). Extension tend to have an opposite effect and the issues that comes up is whether extension with broader usage with a large number of cases compared will have an effect on external validity of the outputs. The main target is how to define and measure variables without distorting the aim of the research or analysis in question. A solution that has been offered by social scientists is the "family resemblance" (Collier and Mahan 1993: 846-8). The initial concept is extended through addition of characteristics that have some qualities like the original concept.

Over determination and selection bias also affect the results in a comparison. This comes with case selection. For instance, when MSSD is used, "there seem to be a wide range of possibility that dependent variable becomes over-determined by some other difference, which may not be specifically considered within the research design" (Przeworski and Teune, 1970:34). However, when the analysis involves cases that are homogeneous, there remains a tendency that a bias within selection may not be known.

Another challenge is the problem of "individual and ecological fallacies" (Keman, 2014). Ecological fallacy is when data that is measured based on aggregated level, for example at country level are employed in drawing inferences on group or an individual behavior (Keman, 2014:58). It affects quality of outcomes as "the aggregated level may not necessarily represent the group or individual behavior. Individual fallacy looks at the outputs of measured data at the individual level or group level, when is used as if it stands for the overall population" (Keman, 2014: 58).

## **CONCLUSION**

In this paper I have discussed the comparative method, looking at the logic of comparison. The Methods of Agreement and Disagreement have been addressed considering the MDSS and MSSD. It has been seen that, comparison has a strength of comparing societies, communities, people and institutions. The approach considers the selection of specific units instead of others, thereby abstracting the units in the context where they are embedded. Therefore, the comparative method and the elements of the logic of comparison is necessary for addressing and dealing with the cases and concerns of awareness, and not necessarily to consider it as if it is a system without setbacks and challenges.

Lastly, it should be critically emphasized here that providing attention to the specifics of particular people, countries, groups and communities when employing the comparative method in order to show the multiple, and complex dynamics of socio-economic, political, and cultural underpinnings and features is very important. Comparative approach as explained earlier helps social scientists and scholars to advance from only barely explaining events, occurrences, and units to rather employ and apply a more solid and critical systems of analysis which underpins a greater and objective approach and discussion in the comparative social research, in considering similarities and contrary views which characterizes certain cases and issues under consideration.

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