

Choosing the Appropriate Methodology: Understanding Research Philosophy

Mary T. Holden*
Waterford Institute of Technology
Cork Road
Waterford

E-mail: mtholden@wit.ie

Patrick Lynch
Waterford Institute of Technology
Cork Road
Waterford

E-mail: plynch@wit.ie

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Abstract

This paper introduces novice researchers to the differences in philosophical perspectives and the major research implications arising from them. It is our contention that research should not be methodologically led, rather that methodological choice should be consequential to the researcher's philosophical stance and the social science phenomenon to be investigated. Several philosophical approaches are possible in the science of research, however we perceive that more extreme approaches can be delimiting. We argue that only an intermediate philosophical approach allows the researcher to match philosophy, methodology, and the research problem.

Introduction

As suggested by Remenyi et al. (1998), there are several major questions that require significant consideration by researchers such as 'How to research?' and 'What to research?' But central to the researcher's answers is their perspective on 'Why research?' There are many practical reasons why a researcher has chosen to engage in research and, in many cases, they may have already decided upon their methodology – qualitative (such as case studies or focus groups), quantitative (such as a mail or telephone survey), or a combination of both. Similarly, what to research may have been chosen for various reasons, such as a researcher's own academic interests. However, as a researcher reviews the philosophical literature, they quickly appreciate that choosing a research methodology, that is, the how of research, involves something much deeper than practicalities – it necessitates a **philosophical** solution to 'Why research?' For example, an extreme post-modernist's answer would be that 'truth' does not exist, hence research is redundant as the meaning of anything is indeterminate.

Developing a philosophical perspective requires that the researcher make several core assumptions concerning two dimensions: the nature of society and the nature of science (Burrell and Morgan, 1979). The sociological dimension involves a choice between two views of society: regulatory or radical change. Society's evolution is seen as either arising from the status quo or from what can be. In a regulatory view of society, the researcher assumes that society evolves rationally. Society is viewed as unified and cohesive, whereas the sociology of radical change views society as in constant conflict as humans struggle to free themselves from the domination of societal structures (Burrell and Morgan, 1979). These contrasting views are the basis of distinct, and often diametrically opposing, schools of thought – a rational view of society is the basis of modernism whereas a radical change perspective underlies post-modernism. The other dimension, science, involves either a subjective or an objective approach to research, and these two major philosophical approaches are delineated by several core assumptions concerning ontology (reality), epistemology (knowledge), human nature (pre-determined or not), and methodology. Whatever their sociological persuasion, the researcher will find that these assumptions are consequential to each other, that is, their view of ontology effects their epistemological persuasion which, in turn, effects their view of human nature, consequently, choice of methodology logically follows the assumptions the researcher has already made. However, as discussed later, the researcher should be aware that their philosophical assumptions might have a significant impact on “What to research?”

The most comprehensive philosophical framework based on these dimensions has been developed by Burrell and Morgan (1979). However, it is beyond the scope of this paper to present a thorough discussion on the nature of society. Our focus in this work is the nature of science, yet we have briefly discussed the sociological dimension in order to impart to new

researchers, or uninformed researchers, that: (1) differing sociological perspectives exist, and (2) a radical view of society may offer new and creative approaches to researchers as most business research has been from a rational view of society. The reader is referred to Burrell and Morgan (1979) for a comprehensive presentation on philosophy's sociological dimension.

The purpose of this paper is to initiate the novice researcher into the field of philosophy. Concentrating on the nature of science, we begin with a description of the core assumptions underlying the subjectivist and objectivist philosophies, followed by a discussion on the major research implications arising from these philosophies. Based on the tensions between opposing camps, we then consider 'Is there a right approach to research?' Our closing thoughts return to *'Why research?'*

Objectivist	Subjectivist
Quantitative	Qualitative
Positivist	Phenomenological
Scientific	Humanistic
Experimentalist	Interpretivist
Traditionalist	
Functionalist*	

Figure 1
Alternative Philosophical Paradigm Names

Adapted from Hussey and Hussey (1997)
*Added by authors

The Nature of Science

Objectivism and subjectivism have been described as a continuum's polar opposites with varying philosophical positions aligned between them. The objectivist approach to social research developed from the natural sciences – social science researchers decided to employ the highly successful methods of the natural sciences to investigate social science phenomena. However, subjectivism arose as critics argued, and continue to argue, that both sciences are disparate. As indicated by Figure 1 objectivism and subjectivism, have been labelled

variously in the literature. For example, Easterby-Smith et al. (1991) entitled them as positivism and phenomenology and Hughes and Sharrock (1997) described them as positivism and interpretive alternative.

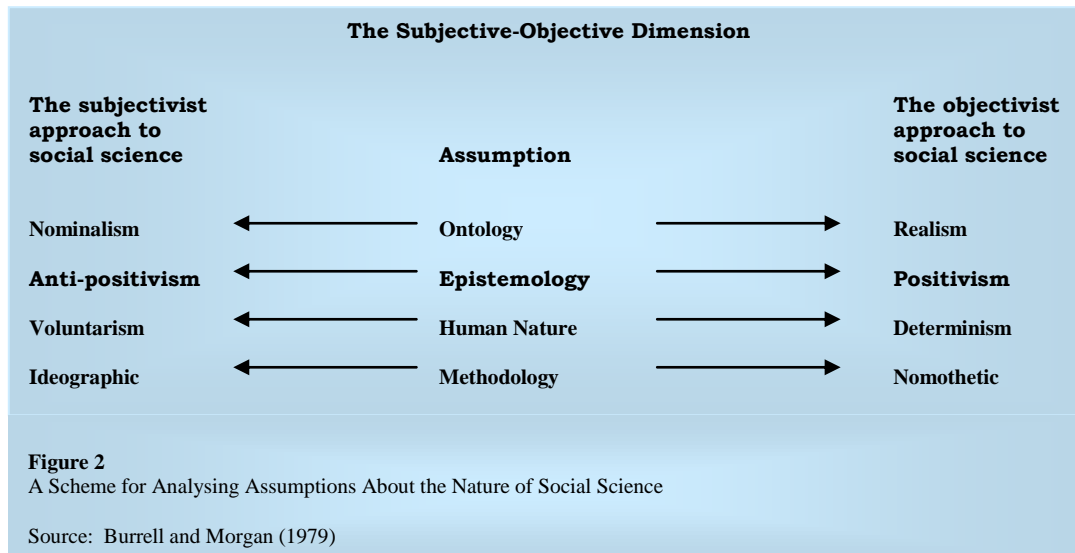
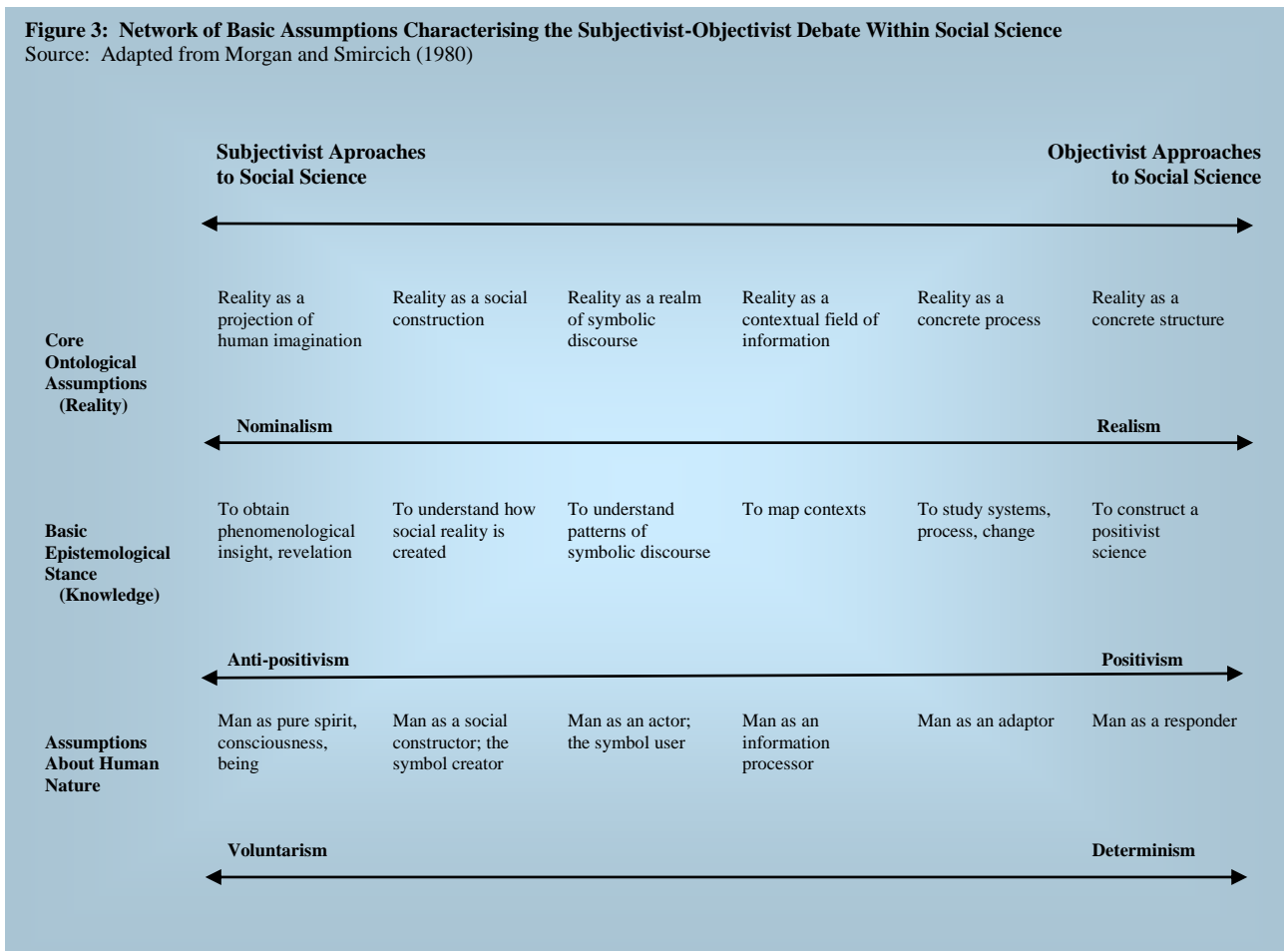


Figure 2 depicts the two major philosophical traditions, their respective assumptions, and the terminology associated with them. The first assumption listed in Figure 2, ontology, relates to the nature of reality, that is, what things, if any, have existence or whether reality is “the product of one’s mind” (Burrell and Morgan 1979: 1). As explained later, the researcher’s view of reality is the corner stone to all other assumptions, that is, what is assumed here predicates the researcher’s other assumptions. The second assumption, epistemology, concerns the study of the nature of knowledge, that is, “How is it possible, if it is, for us to gain knowledge of the world?” (Hughes and Sharrock 1997: 5). It is concerned with “the nature, validity, and limits of inquiry” (Rosenau 1992: 109). Much of the research that has been completed in organisational science has been based on the assumption that reality is objective and ‘out there’ waiting to be discovered and that this knowledge can be identified and communicated to others. The third assumption, concerning human nature, involves

whether or not the researcher perceives man as the controller or as the controlled (Burrell and Morgan, 1979), and the final assumption, methodology, is the researcher's tool-kit – it represents all the means available to social scientists to investigate phenomena.



Based on the core assumptions of the nature of science, there are several taxonomies that lay between the extreme philosophical positions. Figure 3 illustrates Morgan and Smircich's (1980) continuum of six major philosophical perspectives. In the following discussion, we contrast the two extreme positions of the continuum in order to illustrate how a researcher's ontological stance influences the core assumptions concerning epistemology and human nature. The extreme subjectivist ontological position is often called solipsism. These extremists maintain that reality does not exist outside oneself, that one's mind is one's world,

hence reality is all imagination (Morgan and Smircich, 1980). Therefore, the relevant epistemological stance is that knowledge cannot be discovered, as it is subjectively acquired – everything is relative. This is reflected in work on language by Sapir (1949) and Whorf (1956). In their investigations involving the contrast of American Native Indian languages with English, they both concluded that an individual’s perception of reality is controlled by one’s language (Hughes and Sharrock, 1997; Hunt, 1993). In line with these assumptions is that human nature is voluntaristic, humankind has freewill and is autonomous; humans are intentional beings, shaping the world “within the realm of their own immediate experience” (Morgan and Smircich, 1980: 494).

Proponents of the other extreme position, objectivism, are realists. They contend that the world predates individuals – it is prior to the existence of human consciousness and, whether or not humans assign labels and perceive the existence of an external reality, the world will still exist as an empirical entity, made up of hard tangible and relatively immutable structures, independent of the cognitive efforts of individuals (Gill and Johnson, 1997). Therefore, valid knowledge about a concrete reality can only be discovered through sense observation and measurement and any reference to the intangible or subjective is excluded as meaningless (Giddens, 1976; Morgan and Smircich, 1980). On the nature of humans, objectivists contend that the relationship between man and society is deterministic, that is, we are born into a world in which there are causal laws that explain the patterns to our social behaviour (Easterby-Smith et al., 1991).¹ Although we have utilised these positions for explanation purposes, very few researcher’s today make such extreme assumptions. Most business research has been from a more moderate objective position.

¹ The reader is referred to Morgan and Smircich’s (1980) article, pp. 494-495, and Burrell and Morgan’s (1979) book for a comprehensive discussion on varying philosophical perspectives.

Based on the foregoing discussion, the following table is a practical guide to the appropriateness of a research method to a philosophical approach.

Research approaches	Objectivism	Subjectivism
Action research		Strictly interpretivist
Case studies	Have scope to be either	Have scope to be either
Ethnographic		Strictly interpretivist
Field experiments	Have scope to be either	Have scope to be either
Focus groups		Mostly interpretivist
Forecasting research	Strictly positivistic with some room for interpretation	
Futures research	Have scope to be either	
Game or role playing		Strictly interpretivist
In-depth surveys		Mostly interpretivist
Laboratory experiments	Strictly positivistic with some room for interpretation	
Large-scale surveys	Strictly positivistic with some room for interpretation	
Participant-observer		Strictly interpretivist
Scenario research		Mostly interpretivist
Simulation and stochastic modelling	Strictly positivistic with some room for interpretation	

Figure 4: Research Tactics and Their Philosophical Bases
 Source: Remenyi et al. (1998)

As indicated by Figure 4, some research methods that the reader may have considered belonging strictly to either an objective or subjective philosophical approach can have a dual utilisation². For instance, as exemplified by Remenyi et al. (1998), case studies, which involve in-depth interviews, have often been considered only as a qualitative method. However, increasingly, researchers utilising this method have quantified case study themes employing an encoding process. This encoding lends itself to statistical analysis of case-study results.

² The reader is referred to Remenyi et al. (1998) for an explanation of each method and its relationship to its philosophical base.

Major Research Implications of The Subjective-Objective Approaches

Utilising the extreme subjectivist and objectivist perspectives, Figure 5 depicts the major research implications arising from each perspective. Objectivists perceive that their

Positivist Perspective		Subjectivist Perspective	
Independence	The observer is independent of what is being observed.	The observer interacts with subject being observed.	Interaction
Value-freedom	The choice of what to study, and how to study it, can be determined by objective criteria rather than by human beliefs and interests.	Inherent biasness in the choice of what to study, and how to study it as researchers are driven by their own interests, beliefs, skills, and values.	Value-laden
Causality	The aim of social science should be to identify causal explanations and fundamental laws that explain regularities in human social behaviour.	The aim of social science is to try to understand what is happening.	No Cause and Effect
Hypothetico-deductive	Science proceeds through a process of hypothesising fundamental laws and then deducing what kinds of observations will demonstrate the truth or falsity of these hypotheses.	Develop ideas through induction from evidence; mutual simultaneous shaping of factors.	No Hypothetico-deductive reasoning
Operationalisation	Concepts need to be operationalised in a way which enables facts to be measured quantitatively; static design – categories isolated before study.	Qualitative methods – small samples investigated in depth or over time; emerging design – categories identified during research process.	Operationalisation
Reductionism	Problems as a whole are better understood if they are reduced into the simplest possible elements.	Problems as a whole are better understood if the totality of the situation is looked at.	No Reductionism
Generalisation	In order to be able to generalise about regularities in human and social behaviour it is necessary to select samples of sufficient size; aim of generalisations is to lead to prediction, explanation and understanding.	Everything is contextual; patterns identified – theories then developed for understanding.	Generalisation
Research Language	Formal, based on set definitions; impersonal voice; use of accepted quantitative words.	Informal, evolving decisions; personal voice; use of accepted qualitative words.	Research Language

Figure 5: Key Research Implications of the Subjective and Objective Perspectives

Compiled by authors from: Easterby-Smith et al. (1991), Hussey and Hussey (1997), Creswell (1994), Remenyi et al. (2000)

studies can be done independently of what is being observed and that their interests, values, beliefs, etc. will have no influence on what they study or what methods they use. They argue strongly that research choice and methodological choice are made objectively, that is, the

researcher is able to set aside their own set of interests, values, skills, etc. Objectivists believe that they are “independent of and neither affects nor is affected by the subject of the research” (Remenyi et al. 1998: 33); any other contention implies that “social scientists are prone to employ warped logic and improper treatment of empirical data in order to support views they held prior to the investigation” (Gordon 1991: 664). Hunt (1993) summarises how objectivists sustain objectivity:

Requiring that theories, laws and explanations be empirically testable ensures that they will be intersubjectively certifiable since different (but reasonably competent) investigators with differing attitudes, opinions, and beliefs will be able to make observations and conduct experiments to ascertain their truth content (1).

The major goal of objectivists is aligned with that of the natural scientists – they “identify causal explanations and fundamental laws that explain regularities in human social behaviour” (Easterby-Smith et al. 1991: 23). To achieve this end, the generalisation of results from ample sample sizes is necessary utilising a hypothetico-deductive process. This process entails the formulation of hypotheses developed from the researcher’s conceptualisation of a particular phenomenon. Objectivists believe in causality, that is, “there are independent causes that lead to the observed effects” (Remenyi et al. 1998: 32), and hypotheses are either verified or refuted by the observed effects. The hypothetico-deductive approach involves the quantitative operationalisation of concepts, which involves reductionism, that is, the problem is reduced to its smallest elements. Objectivists believe that reduction enhances a problem’s comprehension.

However, subjectivists such as Weber, Hanson, Kuhn and Feyerabend, argue that researchers cannot distance themselves from: (1) what is being observed, (2) the study’s subject matter, or (3) the methods of study; in other words, the researcher is value-laden with inherent biasness reflected by their background, status, interests, beliefs, skills, values, resources, etc. (Hunt 1993). According to Hunt (1993), Kuhn, in his discussion on paradigms, perceived that

research results were guided by “the interpretive part of scientific observation and determined what researchers “saw”” (4). Hunt (1993) further states that Kuhn argued that observations are theory-laden and are incommensurable, thereby “making objectivity in science impossible” (5). In short, subjectivists argue that the involvement of the researcher should be actively encouraged – “phenomenologists attempt to minimise the distance between the researcher and that which is being researched” (Hussey and Hussey 1997: 49). In contrast to the objectivists, subjectivists focus on the meaning of social phenomena rather than its measurement. Their goal is to understand and to explain a problem in its contextual setting; they do not perceive that it is a question of causality but rather it is a question of the meaning individuals attach to a given situation (Easterby-Smith et al. 1991; Hughes and Sharrock 1997). Subjectivists believe that it is pointless to categorise phenomena into causes and effects because “phenomena are engaged in a process of continuous creation” (Hirschman 1986: 238). Furthermore, subjectivists do not utilise reductionalism as they perceive that a problem’s understanding can only be comprehended through investigating the problem in its entirety.

Is There a Right Perspective?

Objectivism has been increasingly criticised as an inappropriate approach to the study of social science phenomena. Critics of objectivism perceive that the explanatory success of objectivism in the natural sciences has not been repeated in the social sciences due to its significant flaws. These critics feel that subjectivism is more apposite to the study of social science due to the complex nature of social science research, that is, human beings.

Subjectivism’s proponents argue that researchers employing a nominalistic ontology and its accompanying epistemology realise more explanatory success. However, subjectivism is not without its own flaws and critics; its critics consider its most condemning flaw is its inability

to replace objectivism with a better approach (Hughes and Sharrock 1997). Many objectivists consider that relativism and incommensurability are other major subjectivist flaws. Aligned with Morgan and Smircich's (1980) extreme subjectivist perspective, subjective relativists argue that there are many equal versions of reality; each version of reality is "personal and community-specific" (Rosenau 1992: 22), hence each view of reality cannot be compared as it is considered as good as the next one. Furthermore, because there is no "absolute basis for scientific knowledge" (Hughes and Sharrock 1997: 162-163), theories are incommensurable, hence one theory cannot be held as more valid than another. Relativism and incommensurability have serious implications for the concept of scientific progress and have been considerably and successfully attacked by critics. For example, Kuhn has considerably altered his perspective on incommensurability (Hunt 1993; Hughes and Sharrock 1997).

As a reaction to the, at times, heated debate between critics of both traditions, many researchers note that debates on ontology and epistemology cannot end in any philosophical solution; there is no right or wrong philosophical stance. For example, Connell and Nord (1996) argue that: (1) if reality is external and unknown to humans, then how do we accumulate knowledge regarding it? and (2) if we are accumulating knowledge about it, how do we know that we're doing it? From this perspective, any philosophical debate is moot because we do "...not know how to discover a correct position on the existence of, let alone the nature of, reality" (Connell and Nord 1996: 1). Hughes and Sharrock (1997) concur; they too are unable to provide any guideline to an appropriate philosophical stance, stating

Since the nature of philosophy, and its relationship to other forms of knowledge, is itself a major matter of philosophical dispute, there is, of course, no real basis for us to advocate any one view on these matters as the unequivocally correct conception of the relationship between philosophy and social research (13).

This has led some academics to offer other alternatives, such as Connell and Nord's (1996) agnostic-interests framework. Their framework requires the suspension of judgment on

ontological and epistemological concerns (therefore becoming an agnostic), and perceiving that the controversy is really a matter of differing interests. On the other hand, Eastman and Bailey (1996) have suggested that perhaps “philosophy is something to be bracketed in doing one’s disciplinary work, like a love of baseball or devotion to faith” (2), thereby suggesting a pragmatic ‘just get on with it’ outlook. Hughes and Sharrock (1997) have stated that several contemporary realists and empiricists are pragmatics; they

do not worry about epistemology and ontology but about the particular problems they confront from their theories and investigations...If all that matters is that scientists go about their business...using methods appropriate to the problems they have to deal with, then philosophical worries about ontology and epistemology are an irrelevance...There is certainly no reason to feel bound by stipulations about a unified method or a unified ontology for science, for on these arguments no such creature exists (94).

With Hughes and Sharrock’s words in mind, it is questionable whether a caution is warranted about a pragmatic approach, that is, applying methods that suit the problem rather than methods that suit ontology or epistemology concerns. Perhaps choosing a philosophical stance is not vital to the proper utilisation of research methodology, however, if a researcher perceives ontology and epistemology to be irrelevant, then how can they ensure that their methods are really appropriate to the problem in hand? Conceivably the problem could be better investigated with a method from an alternative philosophical stance. For various reasons such as past training and skills, researchers may have unthinkingly slotted themselves into an objectivist or subjectivist position, not realising that the methods of an alternative philosophy may suit their research problem better. A philosophical review can have a dual effect on the researcher: (1) it may open their mind to other possibilities, therefore, enriching their own research abilities, and (2) it can enhance their confidence in the appropriateness of their methodology to the research problem which, in turn, enhances confidence in their research results.

Furthermore, inappropriate matching of methodology and the research problem may result in questionable results. Other research methodology writers urge researchers to use both quantitative and qualitative methodologies in order to triangulate results (Patton 1990; Brannick and Roche 1997). Gill and Johnson (1997) perceive that a multi-method methodology leads to the convergent validation of research results through internal cross-checking, and the danger of not using a multi-method approach is highlighted by anthropologist, Richard Wilk. His urging of triangulation is due to the conflicting results of ethnomethodological³ re-inquiries; they represent alternative viewpoints and little else. But triangulation is only possible by taking an intermediate philosophical stance. Such a position can allow “for the influence of both situational and voluntary factors in accounting for the activities of human beings” (Burrell and Morgan 1979: 6).

An intermediate position implies that reality is tangible yet humans have an input into forming its concreteness. The corresponding epistemological stance is that knowledge although not absolute, can be accumulated, tested, and either retained or discarded. Gordon (1991) has posited that all we can do as researchers is to qualify research findings as contextually explanatory and probably generalisable, rather than in insisting that findings are absolutely certain – gathered evidence should be viewed as building bricks which aid our “cognition of the world” (Gordon 1991: 604). An intermediate stance views human nature as both deterministic and voluntaristic, that is, humans are born into an already structured society, yet societal structures evolve and change through human interaction.

³ Briefly, ethnomethodology is a distinctive subjectivist style of research which calls for an immersion of the researcher into “a setting and to become part of the group under study in order to understand the meanings and significances that people put upon their own behaviour and that of others” (Easterby-Smith et al. 1991: 38). The focus of an ethnomethodologist is either linguistic or situational.

Similar to Hughes and Sharrock's observation concerning pragmatic researchers, Creswell (1994) suggests that certain research problems may be better suited to either a quantitative or qualitative methodology. For example, the discussion above stated that the hypothetico-deductive process involves the verification or falsification of hypotheses developed from a theory-driven conceptualisation. If the problem cannot be conceptualised due to a lack of information concerning some or all research variables, how can the objectivist support their pursuit of a pure quantitative study that calls for the reduction and operationalisation of their conceptualisation? Or are they limiting themselves to investigating only certain social science phenomena? Hence, the impact of the researcher's answer to 'What to Research?' on their philosophical stance. Only the intermediate philosophical position allows the researcher room to match their philosophical perspective, methodology, and the problem at hand.

Conclusion

A review of philosophy is a vital aspect of the research process as it opens researchers' minds to other possibilities, which can lead to both an enrichment of their research skills and an enhancement in their confidence that they are using the appropriate methodology. Central to the questions of 'How to research?' and 'What to research?' is the researcher's perspective on 'Why research?' This perspective is based on the researcher's assumptions concerning the inter-related concepts of ontology, epistemology, and human nature. The science of research necessitates that philosophy is regarded as a crucial parameter to 'Why research?' If researchers do not perceive that there is a reality, the utilisation of a nomothetic methodology contradicts their research project's philosophical underpinning. This type of inconsistency is fallacious to research standards, thereby undermining the very nature of the research discipline.

Researchers must also bear in mind that ‘What to research?’ may have a major impact on methodological choice, therefore their philosophical review also engenders a reflection on the research problem. Researchers should consider that certain philosophical positions might preclude them from investigating a particular research problem, as the relevant methodology may be inappropriate to the problem at hand. Additionally, the improper matching of methodology to the research problem may produce spurious results, ultimately having a negative impact on the researcher’s professionalism and the authority of research science. We perceive that elasticity in ‘What to research?’ is gained only through an intermediate philosophical position, thereby allowing researchers to match philosophy, methodology, and the research problem.

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