

THE RESEARCH-VERSUS-PRACTICE CONTROVERSY IN FINANCE: A PARADIGMATIC LOOK

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ABSTRACT

Any adequate analysis of the research-versus-practice controversy would highly benefit from a deep understanding of paradigms. This paper shows that the research-versus-practice controversy in finance is the most likely natural product of the functionalist paradigm, which currently prevails in finance. This paper, therefore, starts with a discussion of how worldviews underlie theories and methodologies in general, and those of finance, in particular. It starts with a discussion of how any worldview can be positioned on a continuum formed by four basic paradigms: functionalist, interpretive, radical humanist, and radical structuralist. Next, it looks at mainstream academic finance and notes that it adheres to the functionalist paradigm. Such adherence would most likely produce the divergence between research and practice, whereas the other three paradigms tend to combine research and practice. To show this, the paper takes the interpretive paradigm, as an example, and compares its research methodology with that of the functionalist paradigm.

INTRODUCTION

The research-versus-practice debate in mainstream academic finance has been a topic for discussion, both in the past and present. However, there has been no fundamental account of the underpinnings of such a debate. More specifically, there was a heated debate in the not too distant past. This has been captured by Kavesh [22] in his address to the American Finance Association, which was made with reference to exchanges between Sauvain [39], Durand [13], and Weston [47]. Kavesh stated:

But disciplines change, new thinking evolves, controversies flair. In finance . . . The early years were filled with descriptive articles . . . Slowly, the mathematical and model-building revolution was revealed . . . And feelings (pro and con) ran high. Balance and perspective were sought then - and are sought now - but to many it was the battle between the "new" vs. "old" finance. [22, p. 5]

Sauvain encouraged balance and cooperation between the "new" and "old" finance. Durand believed that the "new" finance is more interested in demonstrating its mathematical power than solving genuine practical problems. Weston, based on the development of finance since the end of the World War II, predicted an increasing ratio of analytical-theoretical materials with quantitative testing of models to studies dealing with institutions and instruments.

More recent debates continue along the same line. Some scholars are not totally satisfied with the "new" finance. Findlay and Williams [14] are critical of the real-world decision making implications of the "new" finance and note that finance practitioners are ever more inclined to employ "theoretical" as antonym for "practical" or "useful." Gordon [20] and Frankfurter and Lane [16] are critical of the explanatory power of finance theories and believe that the "new" finance theories do not explain anything, but they just say that there are imperfections. Frankfurter and Wood [17] advise that the "new" finance should consider finance as a cultural phenomenon rather than to expend efforts in mathematical model building.

Merton [28], in support of the "new" finance, states that the mathematical models of finance have had a direct and significant influence on the practice of finance. The debate still continues [see 1, 15, 19, 21, 29, 30, 46]. A fair examination of this debate necessarily should uncover their underlying worldviews and their fundamental assumptions. This is in contrast to past examinations, which only touch upon the surface of this important debate.

Any adequate analysis of the role of paradigms, in social theory, must recognize the assumptions that underwrite that paradigm or worldview. Social theory can usefully be conceived in terms of four key paradigms: functionalist, interpretive, radical humanist, and radical structuralist. The four paradigms are founded upon mutually exclusive views of the social world. Each generates theories, concepts, and analytical tools which are different from those of other paradigms.

Any adequate analysis of the research-versus-practice controversy would highly benefit from a deep understanding of paradigms. This paper shows that the research-versus-practice controversy in finance is the most likely natural product of the functionalist paradigm, which currently prevails in finance. This paper, therefore, starts with a discussion of how worldviews underlie theories and methodologies in general, and those of finance, in particular. It starts with a discussion of how any worldview can be positioned on a continuum formed by four basic paradigms: functionalist, interpretive, radical humanist, and radical structuralist. Next, it looks at mainstream academic finance and notes that it adheres to the functionalist paradigm. Then, the paper takes the interpretive paradigm, as an example, and compares its research methodology with that of the functionalist paradigm. These methodologies are called scientific and clinical, respectively. The paper shows how fundamental, paradigmatic assumptions translate into the methodology of research. It emphasizes the role of paradigms in the development of methodologies in finance. It concludes that the functionalist paradigm would most likely produce the divergence between research and practice, whereas the other three paradigms tend to combine research and practice. To show this, the paper takes the interpretive paradigm, as an example, and compares its research methodology (i.e., the clinical methodology) with that of the functionalist paradigm (i.e., the scientific methodology).

The paper is organized as follows. Section II lays down the foundation by discussing paradigms. It notes that mainstream academic finance adheres to the functionalist paradigm. Section III discusses the relationship between paradigms and research methodologies and emphasizes that the adoption of the functionalist paradigm would most likely produce the divergence between research and practice. Section IV concludes the paper.

PARADIGMS

{tc "II. Paradigms

"} Based on Burrell and Morgan¹, each theory can be related to one of the four broad worldviews. The four paradigms are based on different assumptions about; the nature of science (i.e., the subjective-objective dimension), and the nature of society (i.e., the dimension of regulation-radical change), as in Exhibit 1. The assumptions about the nature of science translate into assumptions about ontology, epistemology, human nature, and methodology. Assumptions about ontology are assumptions which concern the very essence of the phenomena under investigation. The second set of assumptions is related to epistemology. These are assumptions about the nature of knowledge - about how one might go about understanding the world, and communicate such knowledge to others. The third set of assumptions is concerned with human nature and, in particular, the relationship between human beings and their environment. The fourth set of assumptions is concerned with methodology, the way in which one attempts to investigate and obtain knowledge about the social world. (Exhibit 1 about here)

The Functionalist Paradigm

The functionalist paradigm assumes that society has a concrete existence and follows certain order. These assumptions lead to the existence of an objective and value-free social science which can produce true explanatory and predictive knowledge of the reality out there. It assumes that scientific theories can be assessed objectively by reference to empirical evidence. Scientists do not see any roles for themselves within the phenomenon which they analyze through the rigor and technique of the scientific method. It attributes independence to the observer from the observed. That is, an ability to observe *what is* without affecting it. It assumes there are universal standards of science, which determine what constitutes an adequate explanation of what is observed. It assumes there are external rules and regulations governing the external world. The goal of scientists is to find the orders that prevail within that phenomenon.

The functionalist paradigm seeks to provide rational explanations of social affairs and generate regulative sociology. It emphasizes the importance of understanding order, equilibrium and stability in society and the way in which these can be maintained. Science provides the basis for structuring and ordering the social world, similar to the structure and order in the natural world. The methods of natural science are used to generate explanations of the social world. Their approach to social science is rooted in the tradition of positivism.

Functionalists are individualists. That is, the properties of the aggregate are determined by the properties of its units.

The functionalist paradigm has become dominant in academic sociology and mainstream academic finance. The world of finance is treated as a place of concrete reality, the individual is regarded as taking on a passive role; his or her behavior is being determined by the economic environment.

Theories and policies in current mainstream academic finance may be listed, as follows: (1) Efficient market theory, (2) Portfolio theory, (3) Capital asset pricing theory, (4) Option pricing theory, (5) Agency theory, (6) Arbitrage pricing theory, (7) Capital budgeting policy, (8) Capital structure policy, and (9) Dividend policy.

Bettner, Robinson, and McGoun [5] note that the common threads among theories in mainstream academic finance are:

1. There is a cause and effect mechanism underlying all nature and human activity (ontology);
2. It is known through the set of nomological connections between initial conditions and final outcomes (epistemology);
3. Human beings interact with each other and their society in accordance with this mechanism (human nature); and
4. Information regarding all natural and human activity can be acquired through observations and measurements unaffected by individual perceptual differences (methodology) [5, p. 3, also see 27].

which lead to the conclusion that the current theories in finance are clearly based on the functionalist paradigm.

The Interpretive Paradigm

The interpretive paradigm sees the social world as a process which is created by individuals. Social reality, insofar as it exists outside the consciousness of any individual, is regarded as being a network of assumptions and intersubjectively shared meanings. This assumption leads to the belief that there are shared multiple realities which are sustained and changed. Researchers recognize their role within the phenomenon under investigation. The goal of the interpretive researchers is to find the orders that prevail within the phenomenon under consideration; however, they are not objective.

The interpretive paradigm believes that in cultural sciences, the subject matter is spiritual in nature. In the cultural sphere, human beings are perceived as free. An understanding of their lives and actions can be obtained by the intuition of the total wholes. Cultural phenomena are seen as the external manifestations of inner experience. The cultural sciences, therefore, need to apply analytical methods based on "understanding;" through which the scientist can seek to understand human beings, their minds, and their feelings, and the way these are expressed in their outward actions.

The interpretive paradigm believes that scientific knowledge is socially constructed and socially sustained; its significance and meaning can only be understood within its immediate social context. Interpretive finance research enables scientists to examine aggregate market behavior together with ethical, cultural, political, and social issues. The interpretive paradigm believes that there are no universally valid rules of finance and financial management.

Interpretive research in academic finance is negligible compared to the functionalist research. The following is a list of examples of interpretive research, which is provided by Bettner, Robinson, and McGoun [5], Baker [2], Baker and Wruck [3], Cray and Haines [9], Frankfurter and Lane [16], Kryzanowski and Roberts [23, 24], Lintner [25], O'Barr and Conley [33], and Rosen [38].

The Radical Humanist Paradigm

The radical humanist paradigm assumes that reality is socially created and sustained. It provides critiques of the status quo. It tends to view society as anti-human. It views the process of reality creation as feeding back on itself; such that individuals and society are prevented from reaching their highest possible potential. That is, the consciousness of human beings is dominated by the ideological

superstructures of the social system, which results in their alienation or false consciousness. This, in turn, prevents true human fulfillment. The social theorist regards the orders that prevail in the society as instruments of ideological domination. The major concern for theorists is with the way such ideological domination occurs and finding ways in which human beings can release themselves. They seek to change the social world through a change in consciousness.

Radical humanists believe that everything must be grasped as a whole, because the whole dominates the parts in an all-embracing sense. Moreover, truth is historically specific, relative to a given set of circumstances, so that one should not search for generalizations for the laws of motion of societies.

The focus of the radical humanists upon the "superstructural" aspects of society reflects their attempt to emphasize the Hegelian dialectics. It is through the dialectic that the objective and subjective aspects of social life interact. The superstructure of society is believed to be the medium through which the consciousness of human beings is controlled and molded to fit the requirements of the social formation as a whole. The radical humanists emphasize the political and repressive nature of purposive rationality, logic of science, positive functions of technology, and neutrality of language.

Radical humanist research in academic finance is non-existent. Examples of radical humanist research, although not even mentioned in academic finance, are: Biewener [6, 7], Cullenberg [10, 11, 12], Perelman [35, 36, 37], and Tinker, Merino, and Neimark [45].

The Radical Structuralist Paradigm

The radical structuralist paradigm assumes that reality is objective and concrete. It uses scientific methods to find the order that prevails in the phenomenon. It views society as a potentially dominating force.

This paradigm is based on four central notions. First, there is the notion of totality. This notion emphasizes that there is a dialectical relationship between the totality and its constituent parts. Second, there is the notion of structure. The focus is upon the configurations of social relationships, called structures. The third notion is that of contradiction. Structures, or social formations, contain contradictory and antagonistic relationships within them which act as seeds of their own decay. The fourth notion is that of crisis. Contradictions within a given totality reach a point at which they can no longer be contained. The resulting political and economic crises indicate the point of transformation from one totality to another, in which one set of structures is replaced by another of a fundamentally different nature.

To survive and reproduce themselves, human beings transform reality, where material reality is the most important. This transformation takes place through the social division of labor. This division implies that social groups enter into relations with each other to produce, while they use means of production. That is, they enter into production relations. These groups, formed in terms of production relations, are called social classes. A complete definition of a social class encompasses economic, political, and ideological elements, with dialectical relationships. Production relations, under capitalism, are antagonistic, since they unite two antagonistic poles, defined as owner and non-owner. Therefore, social classes, who are the carriers of contradictory aspects of social relations, are antagonistic too.

Transforming material requires knowledge of doing it. Gaining knowledge of doing it requires dealing with it, i.e., transforming it. This is the materialist basis of

epistemology, i.e., science has a materialist nature. Therefore, only classes, identifiable in terms of production relations, have the objective possibility of an independent knowledge of reality. Furthermore, the class which deals with a larger portion of reality, has the greater objective possibility of gaining a correct knowledge of it. Under capitalism, the proletariat, which deals with an increasing portion of social reality, has the objective possibility of knowing it correctly. In the context of the constant attempt that classes make to dominate each other, it can only realize itself through ideological class struggle. Knowledge is, thus, in the most fundamental sense, ideological, since it formulates views of reality and solves problems from a class point of view.

Radical structuralist research in academic finance is non-existent. The literature in this area has been, historically, quite extensive, although there has been no mention of their existence in academic finance. Some examples of radical structuralist research are: Gill [18], Magdoff and Sweezy [26], Sweezy [40, 41, 42], and Sweezy and Magdoff [43].

PARADIGM AND RESEARCH METHODOLOGY: THE RESEARCH-VERSUS-PRACTICE CONTROVERSY

In order to understand the role of paradigms in research methodology, it is necessary to understand the relationship between specific modes of research and the worldviews that they reflect. Research methodologies in finance, as in other social sciences, are linked directly to assumptions that characterize and define their underlying worldviews.

A research methodology,² whether scientific or clinical,³ cannot be considered in the abstract. Any methodology embodies assumptions regarding; the nature of the phenomenon to be investigated, the nature of knowledge, and the methods through which that knowledge can be obtained. Therefore, it is necessary to examine methodology within this wider and deeper context in order to develop a framework within which the consequences of the adoption of different methodologies might be inferred.

Different worldviews provide different basis for knowledge. As assumptions change, along the subjective-objective continuum of the scheme presented earlier, the nature of what constitutes knowledge changes.⁴ For instance, the extreme objectivist view of the social world, as a concrete structure, encourages an emphasis on studying the nature of relationships among the elements constituting the structure. Knowledge of the social world implies a need to understand the social structure, which gives rise to scientific methodology, which emphasizes the empirical analysis of concrete relationships in an external social world. It encourages an objective form of knowledge, which specifies the precise nature of laws, regularities, and relationships among phenomena measured in terms of social facts.

At the other extreme, the highly subjectivist view of reality emphasizes the processes through which human beings concretize their relationship to their world. This perspective challenges the idea that there can be any form of objective knowledge, which can be specified and transmitted in a tangible form. This is because the knowledge, thus created, is often no more than an expression of the manner in which the scientist, as a human being, has arbitrarily imposed a personal frame of reference on the world, which is mistakenly perceived as lying in an external and separate world.

The bases for what constitutes knowledge in each of these perspectives are totally different, because of the fundamentally different social reality to which they adhere.

The scientific methodology, which is also used in natural sciences, is appropriate when the social world is viewed as a concrete structure. By analyzing large sets of data through sophisticated quantitative approaches, social scientists are, in effect, viewing the social world as a concrete structure, and human beings' character formed by a deterministic set of forces. They believe the social world can be objectively measured, and they can reveal the nature of that world by examining lawful relations between elements which, for the sake of accurate definition and measurement, have to be abstracted from their context.

The clinical methodology [see 4, 44] relaxes the assumption that the social world is a concrete structure, and believes that human beings, not only respond to the social world, but also actively contribute to its creation. It views the social world as an open-ended process, and, therefore, any method that focuses its approach on a laboratory, or narrow empirical snapshots of isolated phenomena at fixed points in time, limits its view of the nature of the subject. A different methodology is required for studying these phenomena, and most often they focus on qualitative, rather than quantitative, aspects of the subject of study. Quantitative techniques may have an important, but partial, role to play in social science; and their appropriateness comes under closer scrutiny in the more subjectivist positions on the subjective-objective continuum. In these situations, scientists can no longer remain an external observer, measuring what they see; they must investigate the subject from within, and apply a research methodology appropriate to the situation.

Clinical methodology is based on the idea that knowledge and understanding are context bound. It approaches research problems from within the social phenomena, by making explicit essential dimensions of a social process. On the other side, the scientific methodology studies phenomena from without. Consequently, it imposes a definition on the subject of study and postulates hypothetical relationships. In this way, it defines the problem of study such that the researcher is in control. It suggests, obtaining knowledge depends on the adequacy of theory and methodology, rather than the nature of the phenomenon being studied.

Clinical research states that such techniques are distanced from the reality they study. That is, the methodologies or theories have priority over how members create social reality in practice. Such methodologies are defended on the grounds that they are scientific and verifiable. But, theories and research methodologies have their own internal logic, which is imposed on the situation and constitutes what is scientific. Thus, the understanding, or knowledge achieved, may be more an artifact of the theory or methodology than the reality observed. This problem is part of all research, including that based on clinical methodology. However, clinical methodology, in using the "meaning structure of individuals" as the research base, does less harm to the reality observed. The social world is not viewed as a concrete structure against which theory can be examined. Observations of social reality are not neutral to fit some *a priori* theory, they carry as much knowledge-related weight as the observer's construction.

Clinical methodology regards theories as being exploratory instruments that have no priority over the social phenomenon observed. The researcher formally reconstructs the social phenomenon that captures the themes of the situation and the way they are created by members. Often this involves a deep understanding of the

logic in use, which requires a methodology that avoids damaging the member's explanation. The analysis should accommodate the clinical scheme used by those studied, while recognizing the researcher's own influence on the situation. The researcher's involvement in a situation, as interviewer or participant, for example, influences the definition of the situation. This is because; the researcher brings theories and interpretive schemes both as a scientist and a member of the situation. Over time, the concepts used by social scientists become a part of the concepts used by members of the situation. Thus, in the same way actor's logic forms a part of the analysis, so do the standards and concepts used by the researcher, both as a participant and a scientist.

Clinical methodology regards science as a process of interaction. Scientists interact with the subject of study through their paradigm, its protocol, and technique. What they observe in, and understand from the object, is as much a product of such interaction as it is of the object itself. Moreover, since it is possible to engage an object of study in different ways, the same object is capable of yielding different kinds of knowledge.

The selection of an actual methodology implies some view of the situation being studied. This is because; any decision on how to study a phenomenon embodies certain assumptions about what is being studied.

The methodology traditionally favored in the study of social sciences is called scientific. It is based on its paradigmatic assumptions, and, therefore, committed to the method of observation.

The scientific methodology consists of the following five principal stages: [31, chapters 3-6, 32]

1. Observation,
2. Theory building,
3. Hypothesis: systematic doubt,
4. Experimental framework/design, and
5. Test: rejection, reformulation, or confirmation of the theory.

The scientific methodology begins with the observation of phenomenon. It is based on the idea that the researcher observes what is "out there." Reality is the source of ideas, which is the basis for the development of theory. This is the process which is called theory building. The scientist makes sense of what is observed "out there" in the "real world."

The theory often starts as a very broad idea, which is rather imprecise. In the next stage, the scientist comes up with a hypothesis, or a set of hypotheses, which translates the theory into a testable form.

A hypothesis should have the crucial property of being refutable, i.e., the possibility that it is untrue. In other words, the development of a hypothesis is based on "systematic doubt," which is crucial for the scientific process. Without bringing doubt on research, it is not scientific. The scientist should try to refute, or disprove, his or her favored theory, perhaps not to reject it altogether, but to proceed in terms of a methodological process of rejection, reformulation, or confirmation of the theory.

The test of a hypothesis is based on the specification of the hypothesis in a testable form, so that it can be refuted. The testing, based on systematic doubt, leads to the rejection or confirmation of the hypothesis. But, to be scientific, confirmation should not be sought, but should come through the process of attempting to reject.

This process is an open one: when the hypothesis is not confirmed, it is reformulated, which, in turn, may lead to the reformulation of the theory. In other words, the results of the experiments may lead to the recommencement of the process.

The scientific methodology is an iterative process. It begins with stage 1, goes through the various steps to stage 5, and then goes back to stages 2 or 1. This is to obtain an improved understanding of the subject of study.

The model presented above represents a scientific methodology. Its aim is to generate ever better descriptions and explanations of reality.

The clinical methodology consists of the following five stages: [31, chapters 9-11, 32]

1. Get inside: get deeply involved in the situation,
2. Adopt the role of a learner,
3. Map the system of symbols and their meanings,
4. Identify key themes and explanations, and
5. Test against opinion in the situation: reject, reformulate, or confirm themes and explanations.

The clinical methodology starts with the idea that, instead of observing reality from the outside, one should attempt to understand it from within. Whereas the scientist applying the scientific methodology observes the phenomenon from a distance, the clinical scientist makes direct and unstructured contact with it, with no preconception in terms of what is to be discovered. The clinical scientist becomes a participant⁵ in the situation to be investigated. The main goal is to understand how people construct their world.

The clinical scientist gets inside the situation to understand how it is put together from within. This is done without taking on the role of an expert, with a theory about how that phenomenon works, as a scientist applying scientific methodology does. Rather, the researcher takes on the role of a learner, who attempts to understand the situation being researched.

The next stage of research is mapping the rich fabric of the phenomenon.⁶ the symbols, the meanings, the rituals, the routines, the folklore, and the history, which the researcher documents.

Clinical methodology relies heavily on keeping rigorous documentation of the scientist's observations and actions within the phenomenon. The clinical scientist keeps journals of his or her visits about; observation of events and situations; who interacts and talks with whom, conversations, and interviews. Such journals sensitively document from within, what people are seeing, and saying from their standpoint. Once the clinical scientist is well advanced with this mapping stage, he or she will have built a large file of documents containing explanations and descriptions of the pattern of symbols and meanings that seem relevant to the phenomenon.

The next stage of the research process is identifying the key themes and interpretations of the situation. This is similar to the theory building, stage 2, of the scientific methodology. In clinical methodology, it is delayed until stage 4. This is because it believes that the theory should not be brought in from the outside, but should make sense from the inside. The clinical scientist attempts to explain how reality is constructed. Therefore, the methodology used should be compatible with the internal mechanisms of this reality construction process.

The process of interpreting what happens in the situation, and of theory building, is totally different from that of the scientific methodology. The scientist applying the scientific methodology often brings his or her explanation into the situation. The clinical scientist takes his or her explanation out of the situation. The latter focuses on themes and interpretations, in the situation being studied, to generate a detailed theory. The clinical scientist looks at the data collected and makes sense of the main patterns or, looks for what makes the situation sensible from the standpoint of an actor within the situation.

The next stage of research is to test the validity of the theory, by bringing systematic doubt into the explanations and themes. In other words, the clinical scientist tests whether the explanations produced from the situation make sense to the people in it. This is diametrically different from the scientific methodology, since the scientist applying the scientific methodology leaves the situation with the data. Often, the statistics collected are tested through mathematical statistical techniques to bring systematic doubt.

In contrast, the clinical scientist goes back into the researched situation to test the theory. The basis of the test is; if the theory is correct, then it must make sense to the people in the situation. This might be conducted by asking members of the situation to comment on the explanation, and to refine or correct it wherever it has a deficiency, or is wrong. It is only after the process of giving the members in the situation an opportunity to reject the theory, view, or explanation, that the clinical scientist can claim it as knowledge.

It is not necessary for the clinical scientist's explanations to be consistent with the common sense understanding of members in the situation. The clinical scientist might bring out an explanation which participants never considered before, but recognize its truth. Clinical research is not limited to making common sense knowledge explicit. Often, it involves a process of interpreting the common sense knowledge with a wider view.

Clinical research is not the replication of what is obvious. It might be a new, novel insight, but one which makes sense to the members in the situation. The clinical research must employ a process of systematic doubt if it is to constitute a scientific one. An unfavorable test result leads to the reformulation of the initial insight, explanation, and theory. There is a feedback loop that goes from stage 5 to stage 4 in an iterative manner. The final outcome is an explanation which is consistent with the process of reality construction within the situation. This case study is the knowledge product of clinical research.

Scientific methodology does not consider the case study of one situation as an adequate contribution to knowledge. It views knowledge as being about laws and regularities in an external world. It is concerned with the generalization of facts. The aim is to discover facts in one situation that can explain all others. This translates into the study of many situations.

The clinical methodology does not search for facts, laws, or relationships which apply everywhere. The idea of finding facts that apply everywhere, assumes the standpoint of an observer who presumes the world is "out there" operating in accordance with generalizable laws. Clinical methodology believes that since reality is constructed and reconstructed everywhere, seemingly similar facts are not constructed in the same way and do not have the same significance universally.

Scientific and clinical methodologies are totally different, because they view knowledge in totally different ways. The clinical methodology is interested in the insight that explains the process of reality construction, rather than generalizable facts. It searches for intriguing explanations for the way processes work in reality. This is why one single study is legitimate in clinical research.

A case study may produce an insight which can be generalized to other situations. The scientific methodology is concerned with generalizability of facts, laws, and relationships. The clinical methodology looks for the generalizability of insights. A case study of a phenomenon makes sense in explanation of another. This process does not depend upon whether the phenomena are factually the same, or they belong to the same population. One phenomenon may be in a given context, another phenomenon might be in another context. The case study in one context helps to explain processes that are at work in the other.

From the standpoint of clinical methodology, a single case study may contain rich insight. Although situation-specific, it may transform one's understanding of other situations, which may be understood in similar terms. The insight obtained from a single case study may be far superior to the abstract sets of relations obtained from the systematic study of a large number of similar phenomena through scientific methodology.

The scientific methodology is concerned with laws and relationships between variables, generalizable across the whole population. The clinical methodology looks for that spark of insight which may resonate with other researchers. The basis of science is: generalizability based on systematic doubt. Generalizability should be there, but it should not necessarily be the generalizability of facts.

In short, functionalists have atomistic view with deductive logic; are in search of generalizable, objective knowledge of rules and regularities of elements of the subject of study; require research to be systematic, comparative, replicative observation and measurement; and, therefore, abstract from the situation being analyzed. This most likely leads to the divergence between research and practice.

Interpretive research has a holistic view which recognizes that knowledge is not merely technical, but ideological, political, ethical, and moral as well. With its inductive logic, the interpretive researcher gains generalizable insights by analyzing the subject of study in its own right, from within, in its entirety and within the given context. This most likely leads to combining research and practice. The other two paradigms, i.e., the radical humanist and radical structuralist paradigms, also most likely combine research and practice, especially in view of their emphasis on wholeness and totality.⁷

CONCLUSION

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"} In order to foundationally address the research-versus-practice controversy, this paper started with a discussion of paradigms and that how any worldview can be positioned on a continuum formed by four basic paradigms: functionalist, interpretive, radical humanist, and radical structuralist. It showed how worldviews underlie theories and methodologies in general, and those of finance, in particular. Then, the paper took the interpretive paradigm, as an example, and compared its research methodology with that of the functionalist paradigm. These methodologies are called scientific and clinical, respectively. The paper showed how fundamental, paradigmatic assumptions translate into the methodology of research. It emphasized the role of paradigms in the development of methodologies in finance. It concluded that the functionalist paradigm would most likely produce the divergence between research and practice, whereas the other three paradigms tend to combine research and practice.

ENDNOTES

1. This paper borrows heavily from the ideas of Burrell and Morgan [8] and Morgan [31, 32] and applies them to finance. The main purpose of this paper is not so much to generate a new piece of puzzle as it is to put the existing pieces of puzzle together in order to make sense of them.
2. Since the focus of this section is on the methodologies of functionalist and interpretive paradigms, it will restrict attention to the interpretive and functionalist paradigms. A full discussion of research practices should also consider perspectives characteristic of the radical humanist and radical structuralist paradigms.
3. Of course, this is an oversimplified dichotomization.
4. The transition from one perspective to another is a gradual one, and often the advocates of a certain position incorporate insights from others.
5. In fact, one of the techniques in clinical research is called "participant observation," which is very flexible.
6. Actually, this process starts at the beginning of research, and continues throughout.
7. Mobley and Kuniandy's [29] survey of practitioners in Finance supports their previous surveys in Marketing and Management Information Systems; i.e., divergence of research and practice. Note that business schools, in general, do research within the functionalist paradigm.

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