Rethinking Paradigms of Research in Psychology

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Lecture Series, Brno, April 2001

- Introduction

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Introduction

"... the search for method becomes one of the most important problems of the entire enterprise of understanding the uniquely human form of psychological activity."

Lev Vygotsky (1978 [1930]) Mind in Society. p.65

The purpose of these three lectures can be best described in terms of three basic tasks. My primary task, which was suggested to me when I was invited to give this series of lectures, is to review a range of new approaches to psychological research. This will inevitably be a rather disparate range, but this is deliberate, because it will also serve to demonstrate the present malaise that psychological research has got itself into, and the consequent problems that psychology is now facing. In addition, it will also enable me to demonstrate the potential richness and possible diversity of the various paradigms needed for psychological inquiry.

A broad survey of this wide landscape of inquiry would be rather aimless, so I have set myself two further tasks. My secondary task involves identifying the problems that psychological research currently faces, especially the controversies that permeate and stifle our discipline. And, the final task that I have set myself is to propose a solution to these problems in the form of a general framework or model to systematise the growing field of psychological inquiry.

To be somewhat perverse, I will start in my first lecture with the third of these tasks, the solution, and then I will work back towards the second and first tasks over the next two lectures!

During the past few years, I have formed the opinion that psychology, as the scientific study of human behaviour and experience, has lost its way and is
in desperate need of re-inventing itself. A major obstacle for any such re-invention will concern the problem of “research methods”, or the search for method as Vygotsky calls it. I especially want to examine the role that is to be played by qualitative inquiry in psychological research. These three lectures are concerned with that issue, and will focus on the claim that at the root of our problems lies the insight that it is the paradigm within which research is carried out that needs to be examined and made more explicit. Indeed, research methods and data analysis must always be secondary to the paradigm of research. This basic idea is not new in the human and social sciences, and has been persuasively proposed before in the work of Polkinghorne (1983) and Guba and Lincoln (1994). I will not be concerned here with the experimental or natural science paradigm, as such. That paradigm is too well established, and besides, it fits in all too easily with the general model that I will propose. I do not regard the natural science approach itself as controversial, except with respect to its often uncritical application. What I do intend to be concerned with is the rethinking of the exclusive place that it occupies, and rethinking the need for other paradigms of inquiry.

This is a path fairly well trodden, however, I am convinced that it is well worth another visit. But, as with all paths, familiar and unfamiliar, they change by the season and the people who accompany us on our wanderings. As your companion on these three short tours, my intention is to stop on occasion in order to point out the landscape, and highlight the controversies and developments as I see them. Nevertheless, I need to be selective. Luckily, there are many excellent published reviews that I will simply point to in passing, which you can revisit in your own time. The strategy that I will adopt is to highlight those issues pertinent to my three major tasks. My argument involves making broad and subtle distinctions, asking you to engage in a process of discrimination and discernment of the nature of human inquiry.

In my first lecture I will outline a new perspective on psychological research in the form of a general model of disciplined inquiry. The point behind this model is that we need to make a very close examination of the stages and the processes involved in doing research. This further highlights the urgent need to rethink psychological research as both a human science as well as a natural science.
In the second lecture, I will look more closely at the controversies surrounding the comparison between quantitative and qualitative approaches to research in psychology, and I will suggest a fairly radical way of dealing with this controversy. Then, I will outline a proposal I made two or three years ago to develop a calculus for the human sciences. Such a calculus has two main threads - a discursive, and a phenomenological thread. For the remainder of the second lecture I will examine the discursive calculus in some detail, highlighting the exciting developments in discourse analysis and narrative psychology.

And in the third lecture, I will examine more closely the phenomenological calculus, especially with respect to several specific developments in psychological inquiry that are beginning to gain a foothold in the discipline. My point here is that, especially in the field of transpersonal psychology, there is the possibility of reclaiming those areas of research that psychology has now for far too long been ignoring.

Most of the ideas presented here are not claimed to be completely new, they of course build and elaborate on the work of others. If there are any new ideas with some claim to originality, then these would include: the updated model of disciplined inquiry; my synthesis of qualitative methods of inquiry with the paradigm of the human sciences, designed to coexist alongside the natural sciences; and the outline of a calculus for the human sciences that attempts to bring some order to the profusion of "methods". These ideas have evolved over several years, and have been presented at different stages of development at several conferences. They were developed particularly in response to teaching methods of inquiry to practising therapists and counsellors, and in advising postgraduates who are engaged in research from a discursive and narrative perspective.

My ideas have developed out of invaluable conversations with my friends and colleagues, which include Ivo Čermák, Simon Dyson, Dave Rowley, Kevin Baker, Nigel Hamilton, Rachel Shaw, Scott Yates and many, many others. Furthermore, I am also indebted to what I have gleaned from the writings of Amedeo Giorgi, Donald Polkinghorne, Clark Moustakas, Egon Guba and Yvonna Lincoln, William Braud and Rosemary Anderson, John Heron, Ron Valle, Valerie Janesick, Barney Glaser and Anselm Strauss and Juliet Corbin, Colin Robson, Peter Reason, Jonathan Smith and Rom Harré.
And lastly, I too must acknowledge the insights I have found in the writings of Arthur Schopenhauer, William Blake, Edmund Husserl, Wilhelm Wundt, Wilhelm Dilthey, Lev Vygotsky, Abraham Maslow, Paul Watzlawick, Jerome Bruner, Stuart Hall and many, many, many others. These are the writers who have erected many of the signposts along the path that I have been following for the past ten years or so, and have been the biggest inspiration for the paradigm of inquiry in which my own research interests now fall.


Lecture Series, Brno, April 2001

Lecture 1: Paradigms Lost

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"Paradigm issues are crucial; no inquirer, we maintain, ought to go about the business of inquiry without being clear about just what paradigm informs and guides his or her approach."

Guba & Lincoln (1994) p.116

"Now obviously, research on anything will yield findings that mirror its procedures for observing or measuring. Science always invents a conforming reality in just that way. When we 'confirm' our theory by 'observations,' we devise procedures that will favour the theory's plausibility."


Introduction

I know of no other issue in psychology that generates more confusion, superficiality, arrogance, pig-headedness and dishonesty than the controversy over research methods. What seems to have happened is that psychologists have formed themselves into more or less two distinct camps. They have taken up fairly entrenched positions, and proceeded to squabble, usually with very little insight or even interest into the perspectives of their opponents. The fault, if one needs to be found, lies on both sides. Those who favour a quantitative approach to research are often single-minded, arrogant, and simply wish for those advocating other approaches "to go away". While those who favour a qualitative approach seem to offer a confusing and unsystematic approach to research, and simply want to be left to themselves. All this is quite unnecessary, if a view of research as disciplined inquiry is adopted.
TABLE 1.1 The eight principles of research

I hold that the following eight principles are self-evident and true:

- Research is an *inquiry* that results in an *addition to knowledge*

- The *research question* and findings need to be discussed in the context of prior knowledge

- Research always involves making *assumptions* - different researchers inevitably work within different *paradigms*

- All research involves making practical and theoretical *choices*, and must embody a set of *ethical* principles

- Procedures used in the research should be *systematic* and *rigorous*, and must be clear enough for others to *replicate*

- The research findings should be clear and *convincing* to others

- Research is *rarely conclusive* - research usually leads to ideas for further research

- We undertake research because we care and want to make a difference - writing-up, *publication* and sharing the findings are a part of the research process
At the heart of my argument is the claim that it is the paradigms that guide and inform our research which need to be emphasized, rather than the methods of data collection and analysis per se. As Guba & Lincoln (1994) remark, in the quote at the start of this lecture, "paradigm issues are crucial." For several decades now, psychology has more or less tried to insist on a single paradigm, and as with all singularities, it has been taken for granted, and has been widely used and misused with little critical examination. Many exciting and valuable paradigms have become lost to the centre-ground of our discipline. The warning, made by Bruner (1990) in the quote above, that research findings mirror the methods and procedures of inquiry that we employ, needs to be taken very seriously. We must be open to a variety of paradigms, and not be so troubled by competing paradigms. We must try to grasp how paradigmatic choices can be made more explicit, and we must try to understand how paradigmatic assumptions exert their influence throughout the entire research process.

What is research?

Our field of psychology is not going to get very far, nor will we be able to get very far here, if we don't sort out some basic common ground that we can all agree upon. Even a question such as What is research? could cause controversy if we are not careful. It would be very helpful if we can at least agree that a reasonable answer to this question might be that research is an addition to knowledge. This definition is intended to stress that new knowledge is always created within the context of prior knowledge, and therefore will always imply adding to an existing knowledge base in some way. Obviously, such a definition will necessarily provoke discussion of a number of issues, particularly the question of exactly what is the nature of human knowledge in the first place, etc. However, my focus here is on how a disciplined addition to knowledge can be achieved. What is the nature of the process involved in making this addition to knowledge? What procedures of inquiry can be claimed to be effective? What ways are there for guaranteeing that an inquiry is rigorous, systematic and convincing? Furthermore, what would be the consequences of settling for just one method of inquiry, at the expense of others that are available?

Whatever the position you take vis-a-vis the relative merits of different approaches to psychological inquiry, whether qualitative or quantitative, or some other approach, I think it is reasonable to claim that the eight principles listed in Table 1.1 are self evident and can be taken as "true."
Figure 1.1 Rethinking psychology: new vs. old paradigms
I propose to make this claim, not just for psychology, but possibly for all scientific disciplines. These eight principles provide the framework in which I intend to work. I have highlighted, in bold, some of the key concepts and terms that help to clarify the nature of the research process. My claim that these principles are self-evident, releases me from the need to discuss them here at length, although I am aware that the implications and ramifications of each of these principles could be explored extensively. My intention is to devote the main body of my three lectures to an examination of the third principle, which states: *research always involves making assumptions, different researchers inevitably work within different paradigms.*

□ The search for method

Psychology seems to be in a continual process of re-inventing itself, and this has been especially true with respect to the issue of research methods. A recurring theme in the history of psychology has been the conflict between the quantitative and the more interpretative approaches to research. For example, a recent expression of this can be seen in the movement to 'rethink' psychology (Smith, Harré & Van Langenhove, 1995a; 1995b; and Harré & Stearns, 1995). Their work is concerned with what has come to be called the "2nd Cognitive Revolution", or the "discursive turn", in psychology. They claim that "... we may be on the verge of a new psychology" (Smith et al, 1995a, p. 3), and that this paradigm shift for psychology may be characterized by a growing diversity of methodological approaches and theoretical voices, and has re-ignited the interest in the qualitative tradition of research. I have presented their summary of the underlying tensions and concerns this throws up in Figure 1.1.

While I fully support their view of psychology and the general position that they advocate, it does need to be pointed out that this debate is much older than psychology itself, and this "new" psychology is not really new at all. In fact, many of these ideas were addressed well over a century ago, particularly in the work of Wilhelm Wundt and Wilhelm Dilthey, who were both concerned with the founding of psychology as a separate scientific discipline. Indeed, we could trace these ideas back even further to Giambattista Vico and his notion of a *New Science* (Vico, 1725).

More or less, throughout the development of the social and human sciences, there have been two dominant approaches to the study of people and their socio-cultural context. One approach was the model of the natural sciences,
Wilhelm Dilthey's (1883) distinction between the Natural and Human Sciences

**NATURAL SCIENCE**
- Naturwissenschaften
- Explanation
- Deterministic
- Causes
- Efficient cause
- Empirical laws
- Material context
- External control
- BEHAVIOUR

**HUMAN SCIENCE**
- Geisteswissenschaften
- Interpretation
- Hermeneutic
- Reasons
- Telos, purpose
- Rule governed
- Historical context
- Internal factors
- ACTION

Figure 1.2 Wilhelm Dilthey's contrast between the "sciences"
and the other is the interpretative model, or as Dilthey (1883) called it Geisteswissenschaften (see Figure 1.2 for a summary of Dilthey's position). The natural science model draws on a positivist philosophy of science, and emphasizes a causal deterministic perspective, with quantitative forms of analysis preferred. The interpretative model draws on a human science perspective, emphasizing the study of meaning and rule following behaviour, and favouring qualitative analysis. Although, for more than a century, it is the natural science model of psychology that has been the dominant paradigm, the interpretative model has never disappeared totally. Some fifty or so years ago, it was seriously proposed again, in the work of Abraham Maslow, Carl Rogers and Rollo May, but in that case became obscured by the development of the humanistic, or third force in psychology. Similar attempts to bring the interpretative approach closer to centre stage can be seen in the work of Amedeo Giorgi (1970), Donald Polkinghorne (1983), and perhaps most recently in Jerome Bruner's (1990) proposal for the proper study of man (see the summary in Table 1.2). So we seem to have a perennial struggle between these two models, with the interpretative perspective continually being pushed to the margins, if not obscurity.

Another matter that should concern us is the transferability of the methods of psychological inquiry in their application outside the laboratory. For example, on the cover of his excellent book, Real World Research, Colin Robson (1993) points out that:

"... though few students of psychology go on to be laboratory-based experimentalists, traditional degree and other courses, and the texts they use, tend to concentrate very largely on the design and analysis of laboratory experiments."

He argues that graduates, practitioners, professionals go on to jobs where they are called upon to carry out some form of inquiry outside the laboratory, i.e. in the real world. In the majority of cases, it is an interpretative, qualitative inquiry that they find themselves using.

I wish to take up the challenge of the search for method that Lev Vygotsky makes in the quote I used at the beginning of my introduction. It is a challenge that is one of the most important problems involved in our establishing this uniquely human discipline of psychology. I believe that what needs to be recognized is that we are in real danger of forgetting that what defines the field of psychology is not how we study, but what we
Jerome Bruner (1990) in his book *Acts of Meaning* outlines his ideas for "a proper study of man":

- **The 1\textsuperscript{st} Cognitive revolution** has become marginal

- **The 2\textsuperscript{nd} Cognitive revolution** aims "... to discover and to describe formally the meanings that human beings create out of their encounters with the world, and propose hypotheses about what meaning-making processes are implicated" (p. 2)

- there is a need to study "mind" as involving *intentional states*, such as believing, desiring, intending, grasping a meaning

- culture has a *constitutive* role

- by virtue of our participation in culture, meaning is rendered *public* and *shared*

- a cultural psychology will not be preoccupied with behaviour but with *situated action*

- scientific psychology will fare better when it recognizes that its truths are relative to the point of view that it takes towards the human condition
study. Crucially, we must not overlook the basic assumptions that we make, and the theoretical perspectives we take, upon what we are studying, and we must certainly heed Bruner's warning that we can so unwittingly devise procedures of inquiry that will favour the theories we start out with.

The perspective that I, and a growing number of other psychologists, wish to take is that human behaviour is complex. People respond not to events but to the meaning of events. Explanation of human behaviour requires not only simple causal, deterministic mechanisms, but also needs to focus on the rule-governing structures that underlie almost everything that we do. Human behaviour and experience are the consequence of multi-determined factors, historically and culturally embedded. There must be a place in psychology for "good" qualitative research (see Cresswell's attempt to spell this out in Table 1.3). There is clearly a place for interpretative analysis, co-operative inquiry, phenomenological and transpersonal methods. The areas of psychology that are probably the most interesting raise concerns with respect to exploratory approaches, participatory methods, post hoc analysis, ecological validity, and real attempts to characterize the breadth, detail and rich contextuality of human events.

□ Giorgi's idea of a human science
The one person who has almost single-handedly spelled out the importance of a human science approach to psychology is Amedeo Giorgi (1970; 1985; 1994). Giorgi (1994) asserts that:

"There is no escaping the fact that the fundamental tension in the development of scientific psychology is between the meaning of science and the meaning of being human" (p. 90).

Moreover, "... the existing definition of science developed in dialogue with nature rather than with humans, and so it never had to grapple with the meaning of human as human" (p. 95).

Giorgi is committed to an approach to psychology from within a human science paradigm, and this approach inevitably draws on research methods from the interpretative, qualitative inquiry tradition. Giorgi (1994) spells out three stark contrasts in the context of the natural science approach, which I would like to suggest really act as "red herrings." A red herring is something
<table>
<thead>
<tr>
<th>Characteristics of a “good” qualitative study adapted from Cresswell (1998)</th>
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<tbody>
<tr>
<td>□ beginning with a single focus</td>
</tr>
<tr>
<td>□ working within a “tradition of inquiry”</td>
</tr>
<tr>
<td>□ utilising the framed assumptions of: an evolving design, presentation of multiple realities, the researcher as an instrument of data collection, focus on the participants’ views</td>
</tr>
<tr>
<td>□ rigorous data collection procedures involving triangulation (multiple data sources)</td>
</tr>
<tr>
<td>□ a rigorous presentation of methods, design, data collection, data analysis, report writing and verification procedures</td>
</tr>
<tr>
<td>□ analysis of the data using multiple levels of abstraction, (from the particular to the general)</td>
</tr>
<tr>
<td>□ writing persuasively</td>
</tr>
<tr>
<td>□ the best qualitative studies engage the reader, writing is clear, engaging, and full of unexpected ideas</td>
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</tbody>
</table>
that misleads, or distracts from the main path or goal. The three contrasts that Giorgi proposes are: (A) the laboratory, (B) the causal relationship, and (C) measurement. These are presented in Table 1.4, together with three more red herrings I have added that Giorgi seems to overlook. However, I am sure he would accept these three other red herrings. The point I want to make here is very important. These six basic principles are accepted almost without question in psychological research. They are seen by many as the basic requirements of "good research", but I claim that there is nothing necessary about any of them. They are red herrings. As a set of basic assumptions for one paradigm of psychological inquiry they are fine. But there is a desperate need for an approach to psychological inquiry that sets out to study meaningful phenomena in context, using qualitative data, that is exploratory, participatory, and clearly open to all aspects of human experience and action.

I will discuss further the human science approach that Giorgi and others have outlined in my second lecture. In the remainder of this lecture, I want to discount these red herrings, and propose a general model of research that I think will go a long way in providing a solution to the underlying problems that we face.

Why the controversy?
Clearly, the controversy between quantitative and qualitative approaches to inquiry has been with us throughout the history of psychology. In the other human and social sciences the controversy has waned, but in psychology the pattern repeated each time is that, when the plea for permitting a qualitative approach is made, it is humoured perhaps a little, and then the dominant quantitative approach quietly takes over again. There is good reason to believe that this time history need not repeat itself quite so easily. Putting aside the rather pathetic squabbles that serve only to distract from the chief issues, there are two issues that do need closer attention and lie at the root of the controversy.

The first issue concerns the confusing profusion of qualitative approaches to research (see Table 1.5). To anyone new to qualitative inquiry, a brief examination of journals and research methods textbooks reveals a disturbingly wide range of "qualitative methods." In my attempts to teach this area to postgraduate students, I have over the past several years
TABLE 1.4 The six "red herrings" of psychological research

<table>
<thead>
<tr>
<th>Basic distinction</th>
<th>&quot;the red herring&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. laboratory</td>
<td>the phenomenon of interest needs to be isolated from its context</td>
</tr>
<tr>
<td>B. causal analysis</td>
<td>simplification to deterministic analysis</td>
</tr>
<tr>
<td>C. measurement</td>
<td>adoption of crude quantitative descriptions</td>
</tr>
<tr>
<td>D. hypothetico-deductive method</td>
<td>using confirmatory, theory-driven approach</td>
</tr>
<tr>
<td>E. objectivity/replication</td>
<td>discount the observer, only repeatable phenomena are to be of interest</td>
</tr>
<tr>
<td>F. narrowing the field of study, excluding various topics of study</td>
<td>expediency, leading to functional blindness</td>
</tr>
</tbody>
</table>

n.b the first three distinctions above are proposed by Amedeo Giorgi (1994), to which I have added three more and called "red herrings"
**TABLE 1.5 Some qualitative approaches to research**

An examination of a range of journals and research methods textbooks offers a disturbingly wide range of "qualitative methods":

<table>
<thead>
<tr>
<th>Interviewing:</th>
<th>Grounded theory</th>
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<tbody>
<tr>
<td>semi-structured narrative</td>
<td>Phenomenological inquiry</td>
</tr>
<tr>
<td>Single-case study</td>
<td>Heuristic inquiry</td>
</tr>
<tr>
<td>Action research</td>
<td>Diary</td>
</tr>
<tr>
<td>Human inquiry groups</td>
<td>Diary-in-group</td>
</tr>
<tr>
<td>Focus groups</td>
<td>Biographical methods</td>
</tr>
<tr>
<td>Q Methodology</td>
<td>Cooperative inquiry</td>
</tr>
<tr>
<td>Conversation analysis</td>
<td>Participative inquiry</td>
</tr>
<tr>
<td>Discourse analysis</td>
<td>Ethnomethodology</td>
</tr>
<tr>
<td>Narrative analysis</td>
<td>Naturalistic/Field study</td>
</tr>
<tr>
<td>Protocol analysis</td>
<td>Lived inquiry</td>
</tr>
<tr>
<td>Interpersonal process recall</td>
<td>Integral inquiry</td>
</tr>
<tr>
<td>Interpretative analysis</td>
<td>Intuitive inquiry</td>
</tr>
<tr>
<td>IPA</td>
<td>Organic inquiry</td>
</tr>
<tr>
<td>Hermeneutic</td>
<td>Transpersonal/phenomenological inquiry</td>
</tr>
<tr>
<td>Feminist research</td>
<td>Exceptional experience</td>
</tr>
</tbody>
</table>
Figure 1.3 The rejected model of research
A revised model of the two broad traditions:

Psychological Inquiry

Natural Science

Human Science
developed a general framework that simplifies and gives some order to this confusing area.

And the second issue is a little more radical. My proposal here is to reject the conventional model of research, that divides research into either qualitative or quantitative inquiry (see Figure 1.3). Instead, it will be replaced, in the first instance, with the revised model (see Figure 1.4), that proposes a division between natural science and human science paradigms of inquiry. This is of course not a new idea, but it is an idea that needs resurrecting.

The point here needs to be made very clear. The widely held distinction between qualitative and quantitative methods is simply a red herring. While the debate is cast in such terms, we will not make any progress. The issue is not what type of data we collect and analyze, the issue is the choice of paradigm of inquiry that we use to inform the planning and design of our research.

What is Disciplined Inquiry?
Recently (Hiles, 1999a), I have argued that qualitative inquiry and quantitative inquiry can be seen as two broad traditions within the context of a more general model of research which I have called disciplined inquiry (see Figure 1.5). Both traditions draw on a wide variety of basic inquiry paradigms, and both are concerned with research that is rigorous, systematic and convincing, although there may be differences in how they achieve these criteria. I therefore define science as disciplined inquiry, i.e. inquiry that involves a systematic process of finding an answer to a question, the solution to a problem, or extending knowledge. I have decided to adopt this as my starting point for re-inventing psychology.

The model presented here is a slightly modified and updated version of the model I published two years ago, and is presented here for the first time. The model incorporates the eight principles of research I discussed earlier (Table 1.1), and is designed to explore the implications of defining science as disciplined inquiry - that involves systematic and rigorous procedures for finding answers to research questions, and therefore making an addition to knowledge. The term, disciplined inquiry, is not new, educational researchers have adopted it over the past twenty years or so, and recently it has been taken up in psychology (Braud & Anderson, 1998). It is probably
Guba & Lincoln's (1994) three basic questions:

- Human Science
- Ethical issues
- etc.

**Strategic Planning**
- Research question
- Research design
- Hypothesis testing
- Data driven
- Thick description
- Sampling (phen.)
- Triangulation
- Action research
- Phenomenological
- Heuristic inquiry
- Mindful inquiry
- Cooperative inquiry
- Participant inquiry
- Ethical issues
- etc...

**Method**
- Experimental
- Survey
- Interviewing
- Sampling (pop.)
- Grounded theory
- Observational
- Case study
- Human inquiry groups
- Lived inquiry etc.

**Analysis**
- Quantitative
- Inferential/descriptive
- Interpretive
- Hermeneutic
- Phenomenological
- Inquiry
- Interpretative
- Phenomenological analysis (IPA)
- "Grounded" analysis
coding: open, axial
- Discourse analysis
- Protocol analysis
- Content analysis etc.

**Critical Evaluation**
- Placing findings in context:
  - Interpretation/implication
    - literature review
    - theory
    - practice
    - paradigm
    - future research

- Critical reflection:
  - design/method/analysis
  - reliability/validity
  - credibility/transferability
    - dependability
    - confirmability

**Writing-up & Publication**

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Figure 1.5 A model of disciplined inquiry
the most useful term available that can be used to characterize the general features of the research process, and I do not think that its use here is at odds with its use by others.

I see my own contribution as one of trying to offer a clear and structured framework within which a meaningful debate about the nature of the research process can take place. The emphasis I wish to make is that all human knowledge, all scientific research, in following a set of procedures, must begin with a group of assumptions, a set of beliefs, i.e. a paradigm. Furthermore, I think we need to get away, once and for all, from the situation where a whole field of research can frequently be criticized for its methodology without any consideration of the paradigm within which it falls.

My own approach to disciplined inquiry builds upon the important work of Polkinghorne (1983) and Guba & Lincoln (1994). Polkinghorne argues that the methodological perspective of the natural sciences overlooks the anomalous quality of human experience, and:

"The difficulty for human science arises, not from a need to change from one paradigm to another, but from a need to resist settling down to any single paradigm" (p. 9).

For Polkinghorne, it is not the methods of research, but the paradigm of research that is crucial to the research process, and several paradigms will be needed in a science such as psychology. Perhaps the clearest idea of what is involved in this notion of paradigm can be found in the work of Guba & Lincoln (1994). They stress the importance of recognizing the paradigms at work across the various natural, social and human sciences. They argue that a paradigm is ".. not open to proof in any conventional sense" (p. 108), and they propose that:

".. a paradigm may be viewed as a set of basic beliefs [or assumptions] that deals with ultimates or first principles" (p. 107).

The model of disciplined inquiry that I am proposing takes this notion of paradigm as its starting point, and sees the inquiry process as one that is open to a variety of assumptions, choices, procedures, data analysis techniques, and critical reflections. The model explicitly has a "pick-and-mix" structure, and accommodates, without favouring any one approach over
another, positivist/experimental approaches alongside constructivist/interpretative approaches. Also, there is no need to make any explicit distinction between quantitative and qualitative research, these can be seen simply as major “traditions of inquiry” that merely emphasize the nature of the data being collected. There is also the possibility of identifying several other traditions of inquiry where research practices and necessity dictates. Various traditions simply can be organized appropriately under each of the five aspects (or stages).

The model offers a pragmatic distinction between the five basic aspects of the research process. These five aspects are: paradigms, strategies, methods, analysis, and critical reflection (see Table 1.6). The point is that all research activity must involve, implicitly or explicitly, all of these five stages. The model also sets out to clarify the prevailing muddle between method (data collection) and analysis (of data), that is so evident in many recently published textbooks on "research methods" in psychology.

Another feature of the model is the explicit inclusion of the notion of strategies of inquiry. While paradigms do promote different strategies and methods of research, these are by no means exclusive to any particular paradigmatic approach. Strategies can be thought of as issues of research design, but the emphasis here is on the choices, values and perspectives involved, rather than slavishly following recipes for research design laid down by habit, or the need to conform to some canonical principle. This stage of explicitly formulating strategies in the research process provides the important bridge between the paradigm on the one hand and the methods of data collection and analysis on the other. Strategies and design issues must not be simply taken for granted. In my original paper (Hiles, 1999a), I offered the conjecture that the failure to highlight the strategies involved in research design, was the first step to losing sight of the issues concerning the paradigm of inquiry which are fundamental to the research process.

Referring to Figure 1.5, we will now examine each of these five stages of the research process in some detail.

**Paradigms of inquiry**

Following Guba & Lincoln (1994), I propose that the paradigm of inquiry is the set of basic assumptions that every scientist must make, which in principle are not open to proof in any sensible way. It follows that there is no
TABLE 1.6 Five aspects of the research process

The model of disciplined inquiry offers a distinction between these five aspects of the research process:

- **paradigms** assumptions adopted towards truth, reality, knowledge, and how knowledge is to be used

- **strategies** choices with respect to how disciplined inquiry is to proceed

- **methods** procedures for the collection of data

- **analysis** techniques for the analysis of data

- **critical evaluation** interpretation of the findings with respect to previous research, knowledge and paradigm; critique of design/methods/analysis; dissemination of findings
paradigm that is the right one, or the wrong one, and many different paradigms can exist alongside each other. Some positivist scientists will not be very happy with this, but I think that is simply a problem for them, and it is not my problem as such. It also needs to be stressed that the notion of paradigm being used here is not that different from Kuhn's (1970) use of the term, but we will not be concerned with his arguments concerning scientific revolutions here.

Guba & Lincoln helpfully outline three areas of questions that all paradigms ultimately must be concerned with. These are:

(i) *ontological* - concerned with the notion of what actuality exists, the nature of reality, and what can be known about it;
(ii) *epistemological* - concerned with the search for the foundations of human knowledge which can offer some assuredness of the truth of our knowledge claims;
(iii) *methodological* - concerned with establishing procedures by which we can go about making additions to knowledge. These three areas are not completely independent and will place constraints on each other.

In their scheme, Guba & Lincoln offer four major inquiry paradigms: *positivism, postpositivism, critical theory* and *constructionist*, to which I would like to add at least one further paradigm - *human science*, which despite some areas of overlap does not easily fall into any one of the other four. The human science paradigm predates many of the cognate disciplines that have emerged over the past century or so, and deserves a fuller recognition than it at present receives. It is a paradigm of inquiry within which such areas as phenomenological psychology, transpersonal psychology and discursive psychology could fit more comfortably. I will be spelling out my reasons more clearly for this proposal when we get to lectures 2 and 3.

**Strategies of inquiry**

I have already described strategies of inquiry as concerned with the issues of research design, providing an important bridge between the paradigm of inquiry on the one hand and the methods of data collection and analysis on the other.
In considering strategies of inquiry, I want to stress the importance of how exactly the research question is formulated. Small and subtle changes in the wording of the research question can lead to widely different strategies and methods of inquiry. Choices need to be made between a hypothesis-testing approach, or a more data-driven, grounded theory approach. Choices need to be made with respect to acknowledging and dealing with potential bias, with sampling the phenomena under study, and with how the phenomena are to be studied, possibly selecting more than one approach in a strategy of triangulation. It is possible to select any one of a number of different approaches that emphasize the experiential dimensions of the participants and the researcher, together with adopting an attitude of co-operative inquiry.

One matter that cannot be overlooked in all human research is the range of ethical issues that are raised. Whilst the highest standards of concern with respect to the potential for harm, confidentiality, informed consent, and the uses to which the research will be put are required, it is necessary to note that these can receive significantly different treatment within different paradigms of inquiry. For example, a number of specific considerations, especially with respect to confidentiality, must be given to the treatment of data that involves reports of individual experience, single case studies, transcripts of interview material, etc. Ethical principles developed in areas that have been largely concerned with quantitative analysis, need to be completely rethought when a qualitative approach to data analysis is being considered. There is a strong case to be made for approaching all participants as co-researchers. In addressing the problems of confidentiality, I would argue that nothing less than process consent should be considered for all human research, i.e. the ongoing monitoring of participants' consent to continue with taking part in the study. The standard model, with approval being sort from an ethics committee for human research, is woefully inadequate.

□ Methods of data collection
Together with the traditional methods of experimental research with their inherent concerns with controlling variables, random assignment of subjects, and quantitative measurements, there is an increasing range of other ways of collecting data, such as interviewing, inquiry groups, single-case, lived inquiry, etc., usually associated with the qualitative approach. There is also the further matter which needs consideration, concerning how in many areas
of human research, the researcher cannot avoid being a participant in the inquiry process (Heron, 1970, 1986, 1996; Reason, 1988, 1994a, 1994b; Reason & Heron, 1995). Heron (1996) has called participatory research the *fifth inquiry paradigm*.

The point I wish to stress is that it is a mistake to think of these methods of data collection simply in quantitative vs. qualitative terms. It is quite possible to obtain qualitative data under experimental conditions, and perfectly feasible to obtain quantitative data from a range of interviews. Moreover, one research study can employ either one or several methods of data collection. The only constraints are those that follow from assumptions made by the paradigm of inquiry and the choices made with respect to strategies of research design.

**Data analysis**

Here the distinction between quantitative and qualitative is probably of the most direct relevance. Nevertheless, the distinction should be made only with caution, with the main consideration being whether the original paradigm of inquiry is consistent with the method of data analysis being used.

Quantitative analysis is of course a proven approach of enormous range and application. But, there has been recently a number of developments, such as discourse analysis, narrative analysis, phenomenological analysis, hermeneutics, etc., that can make the analysis of data that consists of meanings, accounts and descriptions far more effective. There will be a need to acknowledge that the nature of interpretative techniques must inevitably involve the subjectivity and biases of the researcher/team involved in the data analysis. In some areas of research it may be possible to go a long way in eliminating bias, while in other areas biases need to be worked with, rather than treated as something to be avoided at all cost (Janesick, 1994).

**Critical evaluation**

The final stage of any piece of research must be a critical evaluation of all that has been involved in the inquiry. A guiding principle in this respect should be a close examination of the claim that an *addition to knowledge* has been achieved. This will involve, in principle, three areas of reflection:
(i) reflection on the interpretation and implications of the findings;

(ii) reflection on the strengths and weaknesses of the research design, methods of data collection and analysis, the strategic choices made, possible sources of bias or unreliability in the data, and consequent limitations on the conclusions that can be made;

(iii) thirdly, reflection involved in presenting the findings to others in the wider community, who will in turn bring their critical powers of reflection to bear on the inquiry.

In writing up, there is an obvious requirement to review the existing literature from the widest variety of sources. The basic principle is the need to show how the research findings are an addition to knowledge and contribute to the topic area in some way. However, in the case of human science research, the model for writing-up an experimental study is not always appropriate. It is rather surprising that this issue has received very little debate.

With an experimental study, a review of the literature is necessary to formulate the hypothesis, but with an exploratory study (e.g. grounded theory) the findings cannot be predicted, the theory emerges from the data. Clearly some discussion of the literature must be deferred until the discussion section of the report, when the findings are being presented and the grounded theory is being reported. The principle that must be adopted here is to include a literature review that reviews the general topic area, leading to a clear statement of the research question, and a justification of the paradigm, strategies and methods of research to be adopted. Then in the discussion section of the report a brief review of the areas of theory, knowledge and practice, that the findings have a bearing upon, can be included. The point here is simply that different paradigms and strategies of research demand different approaches to writing-up.

The style of writing for a human science report is generally different to the style used in the natural sciences. The style needs to be persuasive, argumentative, and possibly employing a style that uses narrative devices, and subjective observations and expressions. Presentation of data can also raise different issues. Qualitative data does not yield easily to presentation in a summary table, etc. Extensive use of quotes and accounts taken from
interview transcripts may be necessary to illustrate the coding categories or emergent themes. The inclusion of a number of appendices of transcribed interviews may be required, to do justice to the subtlety, sensitivity and underlying structure of the material. One approach might stress the need to interpret, reducing and synthesizing the material down to its core meanings, while another approach might stress allowing the material to stand on its own merits (e.g. Clements, Ettling, Jenett & Shields, 1998).

Critical evaluation will necessarily raise issues that question the data that has been collected. In the case of quantitative data, this invariably raises issues of validity, reliability and objectivity, but in the case of qualitative data a different set of considerations will come into play. Robson (1994) addresses this issue under the heading: “Establishing the trustworthiness of enquiry based on qualitative data”. He proposes four criteria that need to be addressed with qualitative data: credibility, transferability, dependability and confirmability. These may be discussed and established from a number of different perspectives, leaving the reader of the published report to make their own judgment with respect to the trustworthiness of the findings.

□ Three highlighted issues
I intend to take up many of the issues raised by the model of disciplined inquiry in my two further lectures, but I would like to finish this first lecture with three issues that I think are worth highlighting.

○ Rethinking the comparison between quantitative and qualitative inquiry
In Table 1.7, I have made a comparison between the two broad traditions of the human and natural sciences, using the five stages of research. My purpose is simply to reinforce how pointless it is to focus on the distinction between quantitative vs. qualitative. That is a distinction which can only be meaningful with respect to the type of data and analysis being used. I think it is fairly clear that when qualitative "methods" are being discussed, it is precisely the paradigm and the strategy issues, listed here under human science, that are being referred to, and not the type of data per se. And, similarly, when quantitative "methods" are being discussed, it is those listed here under natural science that are being referred to. While we only focus on the qualitative vs. quantitative distinction, the debate will always be confusing, and that probably suits the positivists rather well. It is much better to be comparing human science research with natural science research. However, it is necessary to recognise that this is only a comparison of two
<table>
<thead>
<tr>
<th></th>
<th><strong>Human Science</strong> (Replacing the qualitative approach)</th>
<th><strong>Natural Science</strong> (Replacing the quantitative approach)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Paradigm</strong></td>
<td>phenomenological, human science, interpretative approach; constructionist view of knowledge/reality</td>
<td>positivist, causal, deterministic view of knowledge/reality</td>
</tr>
<tr>
<td><strong>Strategy</strong></td>
<td>data driven; grounded theory; thick description; co-operative inquiry; triangulation</td>
<td>hypothethico-deductive method; variables are isolated &amp; controlled; subjects as source of data</td>
</tr>
<tr>
<td><strong>Method</strong></td>
<td>interviewing; inquiry groups; action research; case study; experiential accounts; participatory inquiry, etc.</td>
<td>measurement; groups of randomly selected subjects; experimental &amp; observational studies, etc.</td>
</tr>
<tr>
<td><strong>Analysis</strong></td>
<td>thick description; qualitative analysis; discursive, interpretative, hermeneutic, thematic/coding</td>
<td>hypothesis testing; quantitative analysis; statistical description and inferences</td>
</tr>
<tr>
<td><strong>Critical Evaluation</strong></td>
<td>writing-up needs to be clear, persuasive, engaging, argumentative; a critique of the inquiry methods; choices justified; acknowledgement of bias</td>
<td>writing-up follows the traditional experimental report format; a critique of the design, method, measurements and analysis</td>
</tr>
</tbody>
</table>
broad traditions within the basic framework of a general model of *disciplined inquiry*. I think it is necessary to stress again that the human natural science distinction is far from new. It is at least as old as modern science, and in the case of human science this is a tradition, in both Eastern and Western thinking, that goes back possibly several thousand years.

There is still clearly a place for recognising the key difference that Ragin (1987) offers:

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"... quantitative researchers work with a few variables and many cases, whereas qualitative researchers rely on a few cases and many variables" (p. 22).
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However, the issue of number of cases and number of variables is not really an issue of quantitative vs. qualitative, but of the underlying paradigm and strategy of inquiry. There is clearly some value in distinguishing different types of inquiry, and different traditions of inquiry, but this is best done within the model of *disciplined inquiry*, which emphasizes a broad continuum of assumptions, choices, etc.

This comparison, in Table 1.7, raises a number of other issues concerning the nature of psychological inquiry. Two of these I will consider here, and several further issues will be taken up in my two other lectures.

○ **Data-driven vs. Theory-driven research**

The contrast between data-driven and theory-driven approaches to research is often expressed as the comparison between a *grounded theory* approach and a *hypothesis testing* approach (Denzin & Lincoln, 1994; Strauss & Corbin, 1998; Denscombe, 1998). Grounded theory is an approach that is *inductive*, and the emphasis is on *discovery* rather than confirmation. The aim is to develop a theory, or model of the phenomenon being investigated, that is demonstrably faithful to the actual lived experience of the people being studied. Its real value is in making explicit much of what is left implicit in research. It is an approach that can be usefully applied to all methods of inquiry, but has largely been adopted by those working with qualitative data.

Rather than starting with a prediction, a theory, or a hypothesis to be tested, the researcher is encouraged *not* to review the literature in any depth, but to
approach the research question with an open mind. This permits the theory to emerge from the data that is being collected, and hence this approach is often called *data-driven* research.

The approach is not an excuse for loose and sloppy research, but requires acute phenomenological sensitivity, continual checking back to the original data, rigorous coding processes, a concentration on active intentional processes, locating a single clear focus, leading to a gradual refinement of theories and concepts. The issue of sampling also needs noting. The sample is not an *a priori* decision, but works more like following a trail of discovery. It is useful to think of this as involving what is called *theoretical sampling*, and the sample can be regarded as complete when *theoretical saturation* is reached.

○ **Triangulation**

There is the need to recognize that, with real world research and the grounded theory approach, multiple data sources can be explicitly drawn upon. In the real world, e.g. working in the field, in studying a single-case, or using an action research inquiry paradigm, collecting a variety of measurements and other sources makes a lot of sense. Where it is planned that the theory will emerge from the data, it makes no sense to focus on a single variable, since it is clearly not consistent with the logic of this approach to be able to predict which variables will be crucial to the findings.

This approach is usually called *triangulation*, and although it is not limited to inquiry involving qualitative data, it is a key tool in that area. It basically involves trying to study a phenomena from several different angles or approaches, drawing on different methods, etc. But, triangulation is not limited only to data variables.

Janesick (1994), drawing upon Denzin (1978), offers this useful list of five types of triangulation: *data, investigator, theory, methodological* and *interdisciplinary triangulation* (see Table 1.8). While this list may not be exhaustive, it certainly indicates the many creative possibilities of multiple theoretical positions, measures, methods, etc. Triangulation further presents the opportunity of contributing some crucial evidence towards claims of credibility and confirmability of the inquiry findings, i.e. in offering a much needed way of establishing cross-validation of the different sources, or perspectives, being used.
TABLE 1.8 Five basic types of triangulation

Janesick (1994) lists five types of triangulation:

- **data triangulation:**
  the use of a variety of data sources in a study

- **investigator triangulation:**
  the use of several different researchers or evaluators

- **theory triangulation:**
  the use of multiple perspectives to interpret a single set of data

- **methodological triangulation:**
  the use of multiple methods to study a single problem

- **interdisciplinary triangulation:**
  drawing on the methods and insights of several disciplines
For example, Robson (1994) points out that triangulation:

"... in its various guises is an indispensable tool in real world enquiry. It is particularly valuable in the analysis of qualitative data where the trustworthiness of the data is always a worry. It provides a means of testing one source of information against other sources. Both correspondences and discrepancies are of value. If two sources give the same messages then, to some extent, they cross-validate each other. If there is a discrepancy, its investigation may help in explaining the phenomenon of interest. [...] the by-products of triangulation are as useful as its primary purpose in validating information. It improves the quality of data and in consequence the accuracy of findings. An alertness for possible triangulation opportunities is a valuable quality in the enquirer." (p. 383)

☐ Summary
In this lecture, I have tried to identify a major controversy in psychological inquiry, and propose a model of disciplined inquiry. The longer we focus only on the distinction between qualitative vs. quantitative research, then the longer will crucial paradigms of inquiry be lost to psychological research. The model I have proposed, I think, goes a long way towards overcoming the muddles in our thinking, and will put some of these many misleading controversies and arguments to rest. Most importantly of all, this model provides a guide to carrying out research that is clear, systematic and comprehensive.

In my next lecture, I will take a much closer look at the human science paradigm, and focus on issues related to the growing field of discursive methods of inquiry. And, in my final lecture, I will extend this further to phenomenological and transpersonal inquiry methods.
Lecture 2: Paradigms Returned

David Hiles
De Montfort University, Leicester, UK.

"There is no escaping the fact that the fundamental tension in the development of scientific psychology is between the meaning of science and the meaning of being human."

"... human science requires a syncretic approach which integrates the results obtained through multischematic and multiparadigmatic systems of inquiry."

Introduction

In my first lecture, I outlined a model of disciplined inquiry that emphasized the need to address the issues relating to the paradigms that inform all research activity (see Figure 1.5). One feature of this model is that it rejects the simplistic controversies surrounding different types, or approaches, to research. It further rejects the idea that the discipline of psychology must decide on a single paradigm for its research activities, but instead provides for the recognition of several paradigms to coexist alongside each other, simply beginning from different assumptions.

The quote by Giorgi at the beginning of this lecture highlights the key issue that I want to address here. In the development of our discipline, there has been a fundamental tension between the meaning of science and the meaning of being human. I would argue that the model of disciplined inquiry goes some way towards redefining the meaning of science, and reconciling
science with the meaning of being human. Furthermore, Polkinghorne's vision of multischematic and multiparadigmatic systems of inquiry can be fully realized within this model.

Psychology needs to be positioned within the wider range of paradigms that it requires for its work. Indeed, we can move beyond the distraction of choosing between qualitative and quantitative methods, and instead face up to the real choice between a human science and a natural science paradigm that will inform the research process. This does not preclude other paradigms of inquiry from our consideration, indeed there is a case to be made for treating the human and natural science paradigms as broad traditions within which several specific inquiry paradigms can fit.

Current developments in psychology over the past ten years or so, suggest that the position I am advocating is urgently needed, if the perennial habit of marginalizing new fields of study is not to be repeated yet again.

The proposal for two broad traditions of inquiry is not a new idea at all, but has been a recurring theme dating back to the work of the early pioneers of psychological science. And as I have pointed out before, nor is the idea of human science very new either. In fact, as a method of human inquiry, it probably predates modern psychology by several thousand years, and is the approach of choice in many Eastern approaches to psychology (Guenther & Kawamura, 1975; Bentz & Shapiro, 1998).

For example, some of the exciting developments in psychology suggest that human science is far from marginal. The human science approach would clearly embrace such contemporary perspectives as social constructionism (Harré & Secord, 1972; Harré, 1979; Gergen, 1985, 1999; Parker, 1992, 1998), cultural psychology (Bruner, 1990; Hiles, 1996a), discursive psychology (Potter & Wetherell, 1987; Edwards and Potter, 1992; Harré & Gillett, 1994), and narrative psychology (Bruner, 1986, 1990; Sarbin, 1986). The human science approach also would embrace established fields, such as humanistic-existential psychology (Fromm, 1949; Maslow, 1954; 1962; Rogers, 1961; May, 1958, 1983; Frankl, 1962), phenomenological psychology (Giorgi, 1970, 1985, 1995; Spinelli, 1989; Valle & King, 1978; Valle & Halling, 1989; Valle, 1998) and counselling psychology (May 1939; Rogers, 1942, 1967; Clarkson, 1998). Together with recent developments in transpersonal psychology (Braud & Anderson, 1998; Heron, 1998), and attempts to rethink psychology (Smith, Harré, & Van Langenholve 1995a,
there is an overwhelming case to be made for the central place that human science occupies in our discipline at present.

But old ways die hard, and I am quite aware that many contributors to the above fields still cling to the natural science paradigm, and would be unhappy with being grouped with those who call themselves human scientists. Of course, that is their own decision. What I am sure of is that we no longer need to put up with the pointless squabble over qualitative vs. quantitative methods. Taking a serious look at the human science paradigm is the only way forward.

**Comparing the two major traditions of scientific research**

I have taken pains to stress that there is much more at stake in the different approaches to research than the simple contrast between qualitative and quantitative data collection methods and analysis. In Table 2.1 there is a summary of the contrasts between the human science approach and the natural science (positivist) approach to research. It should be clear that there is much more at stake here than just a distinction between qualitative and quantitative "methods".

The human science paradigm recognizes that the explanation and understanding of human behaviour and experience must include accounts of subjective lived experience, and that there is no search for one "truth" that overrides all other claims. Human action needs much more than just causal explanation, and needs also to be understood in terms of reasons, meanings, and the social and cultural contexts and practices that inform it. It is obvious that people respond not to events, but to the meaning of events. Human action displays intentionality and normativity. Our actions reflect our beliefs, commitments and desires, and are governed by rules, standards and conventions and not simply by antecedent stimulus conditions. An emphasis on human behaviour needs to be made, which stresses the goal-directed and purposeful qualities of human action. Human reflectivity, consciousness, experience and spirituality need to be valued. It may often be impossible to generate hypotheses concerning human actions and experiences that can then be tested under controlled laboratory conditions. It is perfectly feasible to approach phenomena with an exploratory attitude, so that theoretical constructs emerge out of the data collected. It is the uniqueness of human experience that needs to be respected. It is simply a fallacy that episodes...
### TABLE 2.1 Two major traditions of scientific research

<table>
<thead>
<tr>
<th>Human Science Research (usually identified as <em>qualitative inquiry</em>)</th>
<th>Natural Science Research (usually identified as <em>quantitative inquiry</em>)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subjectivity</strong> - there is only lived experience; inquiry is never free from bias, never ideologically neutral; findings emerge from the shared experience between researcher and participants; several truths may compete and yet co-exist</td>
<td><strong>Objectivity</strong> - research is the pursuit of objective truth; reality is lawful; science involves a set of procedures to expand human knowledge; findings must be free of researcher bias</td>
</tr>
<tr>
<td><strong>Knowledge</strong> is constructed and is historically situated; it is local, holistic, context specific</td>
<td><strong>Knowledge</strong> is discovered; it is universal, reductionist, context free; it is regarded as the guarantor of progress</td>
</tr>
<tr>
<td><strong>Meaning</strong> is the central concern; something we inhabit; the emphasis is on understanding, narrative accounts, etc.</td>
<td><strong>Causal explanation</strong> - mechanical, deterministic models</td>
</tr>
<tr>
<td><strong>Grounded theory</strong> - theories are developed from the data after collection; <em>a posteriori</em> reasoning; “real world” research</td>
<td><strong>Hypothesis driven</strong> - predictive; laboratory study, isolation and control of variables; experimental approach; <em>a priori</em> reasoning</td>
</tr>
<tr>
<td><strong>Qualitative</strong> - data is collected in the form of descriptions, discourse, themes, content, etc.</td>
<td><strong>Quantitative</strong> - data is collected in the form of measurements, counting, reduction to numbers</td>
</tr>
<tr>
<td><strong>Interpretation</strong> - hermeneutics; methods adapted as necessary</td>
<td><strong>Statistical analysis</strong> - averaged data; wide scheme of inferential techniques</td>
</tr>
</tbody>
</table>
recounted in clinical case material (e.g. experience of loss of a loved person/object) can be explained by universal laws. Since lived experience is unique, it can only be understood within an interpretative, hermeneutic framework. This perspective of the human science approach to psychological inquiry does align it with the concerns and methods of the other human and social sciences, which would include disciplines such as: semiotics, linguistics, anthropology, sociology, history, political science, philosophy, etc. Many researchers from these allied disciplines may be quite surprised at just how many difficulties psychology makes for itself out of these issues.

On the other hand, the *natural science paradigm* takes a positivist stance. It places emphasis on the pursuit of some kind of "objective truth", on context-free knowledge, on causal deterministic explanations, and the notion of the central role played by quantitative measurement. Conflict between competing theories is resolved by a research enterprise that emphasizes the testing of hypotheses, leading to the rejection of one theory and the acceptance of another.

While Table 2.1 does highlight the considerable differences between these two approaches to research, this can also be somewhat misleading. As I have stressed before, despite these differences, research can often combine both traditions, e.g. research can combine both quantitative and qualitative methods in a single study. Moreover, the contrast between the two approaches may be more of a continuum than the dichotomy that is presented here, or is usually appreciated in discussions on these issues. What is being stressed in Table 2.1 is that any comparison obviously involves far more than a difference in the use of measurement. It is the ontological, epistemological and methodological issues (cf. Guba & Lincoln, 1994) of the underlying paradigms that are at the core of any useful comparison to be made.

**A critique of the natural science paradigm**

Of course, the natural science approach, with its emphasis on quantitative measurements, statistical techniques and laboratory methods, has a well proven track record in psychology and all scientific disciplines. However the limitations are also all too obvious. A moment's reflection will lead to the realization that measurements are basically a means for categorizing potentially complex observations into a form suitable for mathematical
manipulation, and subsequent hypothesis testing. Such procedures always involve the removal of context. It should be pretty obvious that context cannot really be measured. So, if you can not measure it, do not study it, is the usual rationale. But the study of context is probably the most crucial contribution to understanding almost any aspect of human action and experience!

Measurement inevitably involves data loss and reduction. The common practice of averaging data collected from several subjects fails to preserve any meaningful record of the uniqueness of the individual. Typically, measurements and methods of data collection are devised to suit some \textit{a priori} hypothesis, while other possible measurements and variables are completely ignored. Some things may be very difficult to measure, so the scientist simply ends up studying what it is easy to study. The simpler issues are examined at the expense of the more complex. Important areas of research are overlooked or deferred.

Nevertheless, quantitative methods do have a place in psychology. Indeed, because of their ease of use, and the influence from other disciplines, they are possibly still the most widely used approach, and they are fully accommodated within the proposed model of disciplined inquiry. However, the point that must be made is that in such areas of research that are concerned especially with the situated and occasioned context of human action, with the subjective constructions of meaning and experience, and with transpersonal experiences, etc., then the hypothesis-driven methods of the natural science approach are far from appropriate.

\textbf{The human science paradigm}

The discipline of psychology is now in real danger of seriously lagging behind the other disciplines of the human and social sciences by not embracing the human science paradigm. The selection of one paradigm rather than another has a major influence on the type of research questions that psychologists can investigate, and on which areas of human behaviour and experience can receive serious study.

Moustakas (1994) offers a very useful outline of what he sees as the common features of the human science approach (Table 2.2), which help in defining the field.
TABLE 2.2 Clark Moustakas - the common features of human science research

<table>
<thead>
<tr>
<th>Moustakas (1994) proposes the following common features of human science research:</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ recognising the value of qualitative designs and methodologies, studies of human experiences that are not approachable through quantitative approaches</td>
</tr>
<tr>
<td>□ focussing on the wholeness of experience rather than solely on its objects or parts</td>
</tr>
<tr>
<td>□ searching for meanings and essences of experience rather than measurements and explanations</td>
</tr>
<tr>
<td>□ obtaining descriptions of experience through first-person accounts in informal and formal conversations and interviews</td>
</tr>
<tr>
<td>□ regarding the data of experience as imperative in understanding human behaviour and as evidence for scientific investigations</td>
</tr>
<tr>
<td>□ formulating questions and problems that reflect the interest, involvement, and personal commitment of the researcher</td>
</tr>
<tr>
<td>□ viewing experience and behaviour as an integrated and inseparable relationship of subject and object and of parts and whole</td>
</tr>
</tbody>
</table>
An important set of considerations that operate when choosing to work within the human science approach are presented below. Any one of these might be a justification for adopting this approach:

(i) the paradigm/perspective being adopted

(ii) a research question that focuses on an exploratory and/or descriptive approach

(iii) the emphasis on meaning rather than measurement

(vi) a focus on subjective experience rather than behaviour

(v) the need to respect the uniqueness and context of the data collected.

While I reject the simplistic distinction between quantitative and qualitative research, I still think it is sometimes useful to identify a broad tradition of inquiry that can be described as qualitative. It is an approach to research that does recognise human behaviour as complex, and emphasises that people respond not to events but to the meaning of events. The explanation and understanding of human actions requires more than simple causal, deterministic mechanisms. Human action and experience are the consequence of multi-determined factors, historically and culturally embedded. This approach is reflected in the emphasis found in the work of Polkinghorne (1988), Moustakas (1990, 1994), Janesick (1994), Heron (1996, 1998), Reason (1994a) and many, many others.

□ Broadening the scope of psychological inquiry

The basic idea behind the model of disciplined inquiry is of course to broaden the scope of psychological research. However, it needs to be acknowledged that there are a few approaches to inquiry that have been more or less adopted by main stream psychology over the years, even though they do not fit too comfortably within the natural science approach. In most cases they are not even very easy to define in terms of the qualitative and qualitative distinction. They do however fit easily into the model of disciplined inquiry, and really are best considered within the human science approach. I will consider just three of these here.
○ The Single-Case Study
The case study is a very well established method of inquiry in educational and clinical research (Robson, 1993; Denzin & Lincoln, 1994; Denscombe, 1998). It is a method of inquiry that offers many advantages:

(i) focus on one instance - focussing upon a single instance, or a small number of instances of the phenomena to be investigated, can bring to light important insights that may have much wider implications - the aim here is similar to the grounded theory approach, to illuminate the general by looking at the particular;

(ii) thick description - the single-case offers the opportunity to study a phenomenon in-depth, with considerable detail and with the emphasis on a thorough description - this is something that a survey or a group-study approach might preclude;

(iii) focus on context and situational processes - human phenomena are embedded in complex social-cultural contexts and processes - the single-case offers a holistic approach that has a better chance in taking into account the full context that would be lost in a larger scale group study;

(iv) real world setting - the single-case is usually a naturally occurring phenomena, in contrast to laboratory experiments which are often contrived studies;

(v) multiple data sources/methods - the single-case study usually encourages the use of triangulation, i.e. a variety of sources and methods.

As I have already said, the single-case study is generally well accepted in psychological research, but it hardly fits in well with the a natural science paradigm, and neither is the distinction between qualitative and quantitative research very relevant.

○ Action research
The term action research was coined by the social psychologist, Kurt Lewin (1952), and involves a spiral of cycles involving planning, acting, observing and reflecting (Robson, 1993; Denscombe, 1998). Action research is
concerned with practical issues that arise in a specific situation, by examining a particular practice and the resulting changes that follow from it. The aims of such research might involve the improvement of the practice, deeper understanding of the practice, or a clearer view of the situation in which the practice takes place. This type of research necessarily requires participation and/or close collaboration between researchers and practitioners, and is closely allied with the **scientist-practitioner** model of research (see for example, Robson, 1993). This approach to research is commonly used in such areas as educational, clinical, counselling and organizational psychology. It is an approach that has been considerably extended by co-operative inquiry and participatory inquiry.

### Co-operative inquiry

Although co-operative inquiry has been implicit in a lot of research in the human sciences since its inception, it is only recently that it has been spelled out explicitly (Heron, 1981, 1996, 1998; Reason, 1994a; 1994b). It has affinities with action research and experiential research, and was obscured a little behind the banner of "new paradigm" research in the early 1980's (Reason and Rowan, 1981).

Heron (1996) defines co-operative inquiry as involving:

"... two or more people researching a topic through their own experience of it, using a series of cycles in which they move between this experience and reflecting together on it - each person is co-subject in the experience phases and co-researcher in the reflection phases" (p.1).

"It is a vision of persons in reciprocal relation using the full range of their sensibilities to inquire together into any aspect of the human condition with which the transparent body-mind can engage" (p. 1).

Heron argues that in the traditional models of research, the roles of the researcher and subject(s) are mutually exclusive, the researcher contributes the thinking that goes into the project, and the subject contributes the “data” for the study. But in the co-operative inquiry model, both contribute equally to the design of the research, and equally share in the experience. This is not research on people, but research with people. The emphasis here is that
| Phase 1: reflection on the topic of inquiry, choosing a plan of action, contracting |
| Phase 2: a first action phase of engagement with the topic |
| Phase 3: full immersion in the action phase |
| Phase 4: a second reflection phase, review, sharing data, plan for next action phase, etc. |

And Heron has distinguished *four kinds of inquiry outcome*:

- transformations of personal being
- presentations of insight, e.g. using creative expression
- propositional reports of what has been explored, the outcomes and methods
- practical skills associated with transformative action, and/or participative knowing
research is a co-operative venture, in which the researcher plays a facilitating role, and all other participants should be seen as co-researchers.

Heron has outlined four basic phases involved in this form of inquiry, and also spells out four kinds of inquiry outcome (see Table 2.3). It is interesting to note how pointless it would be to quantify the inquiry outcomes that Heron presents here. Since they involve transformations of personal being, creative expression of insight, propositional reports and practical skills, they can only be effectively studied using human science techniques.

The notion of co-operative inquiry is closely related to the notions of participative inquiry, and human inquiry groups. There are also obvious links here with approaches such as heuristic inquiry (Moustakas, 1990), and with mindful inquiry (Bentz & Shapiro, 1998), which we will examine more closely in Lecture 3.

Clearly, co-operative inquiry incorporates not only a methodology, but also a set of values. There are clear parallels here with the values inherent to the idea of the working alliance in counselling and psychotherapy practice, where, incidentally, I see the working alliance as the embodiment of mindfulness. But the point here is that it does seem entirely appropriate that the methods of inquiry available to counsellors and therapists should quite properly parallel the therapeutic practices that are the very focus of their research. Indeed, in any psychological practice where the presence and personhood of the psychologist plays an essential role, only methods of inquiry that accept the co-operative and participatory role of the researcher can be seriously considered.

□ A calculus for the human sciences

In the final part of my lecture I want to explore the possibility of a calculus for the human sciences. This is an idea I had a few years ago, and presented in a preliminary form in a paper I read to the 17th International Human Sciences Research Conference (Hiles, 1998). I will briefly summarize here the model I proposed in that paper. In my final Lecture, I will be outlining how I have now extended the model further.

The use of the word calculus, may seem a little odd, because it tends to be associated with numbers and making calculations, which would not fit too
well with the human science paradigm. But, I am using the word "calculus" in the sense of its dictionary definition as:

**Calculus** - a set of systematic rules, procedures or methods used in deriving some understanding of a phenomena.

This is precisely what I have tried to set out to formulate. And, I would argue, it is precisely what the human sciences are in desperate need of at this time.

As the model of disciplined inquiry indicates, human science covers a wide area, and is in danger of lacking cohesion and an obvious focus. As a starting point to bring about some kind of order, I will make a very simple distinction. I think that it is fairly clear that our knowledge of the "world", and our experience of it, comes to us in one of two fundamental ways:

(i) as sense data, as phenomena, as experience  
   i.e. *I am able to see/hear/feel (etc) what is there*

(ii) as discourse, as interpretation, as a social/cultural construction  
   i.e. *I am being told what is there*

I do not have the time here to discuss all of the philosophical issues that this raises, but I think this basic distinction is quite clear enough, and is exceedingly useful in making some progress quickly. However, it is important to note that, while it obviously makes sense to differentiate these two modes of knowing, and to study them separately, I also am of the mind that ultimately the two are inseparable. Clearly, *what I can see is there*, will be heavily constrained by my language and culture, *and what I am told is there* has little value without my sense of there being something there in the first place.

The calculus I propose builds on this fundamental distinction, leading to refining of a further set of distinctions, such that each of the various paradigms of inquiry, and related strategies and research designs can fall into their appropriate places. In some cases, theoretical constructs and models may be brought in from outside psychology. But, the result is that the human science paradigm can take on a clearly articulated structure.
Figure 2.1 A calculus for the human science paradigm
The outline is presented in Figure 2.1, where the field of psychological inquiry is first split into two broad divisions: the human science paradigm and the natural science paradigm, a division that I have taken some pains to justify fairly extensively so far. In turn, the human science paradigm is divided into: the phenomenological calculus, and the discursive calculus.

This division reflects the need for a calculus of human experience, and a calculus of human action. Each will consist of two broad sets of rules, procedures and methods for understanding their basic areas of concern. These two broad sets of rules are not in competition with each other, but are complementary and must be able to mutually interact. The natural science paradigm, of course, has its own calculus, but that will not be our concern here. I also suggest that a similar, but possibly rather different scheme, operates throughout the disciplines that make up the other human sciences, but here we are concerned just with psychology.

Human experience and action are best understood when the meanings that inform them are grasped. But the human sciences have had to develop without any adequate model of meaning. The proposed division into a phenomenological and discursive calculus is further warranted by the realization that the main concern of the human science paradigm should be a systematic study of meaning. The way forward that I am proposing argues that the study of meaning raises two broad sets of issues:

(i) the role that meaning plays in human experience, in human awareness and consciousness,

(ii) the role that meaning plays in human communication, in human joint action, and the creation and exchange of meanings that constitutes human society and culture.

The first of these falls basically within the area of phenomenological inquiry, and constitutes a calculus of human experience. The second falls within the area of discursive inquiry, and constitutes a calculus of human action. I will concentrate here on the discursive calculus, and will leave the phenomenological calculus for discussion in my final lecture.
The discursive calculus

One of the most exciting recent developments in psychology has variously been called the 2nd Cognitive Revolution, or the discursive turn. The importance of the discursive approach to psychology becomes clear when it is considered that discourse can be defined as any exchange of meanings. This exchange of meanings is clearly the cornerstone to an understanding of human action. As Harré & Stearns (1995) point out, this approach involves:

"... the use of some new methods that are animated by one of the major contemporary theories of human action. This is the point of view that highlights discourse as the characteristic feature of human life. [...] In one way or another [these new methods . . ] have opened up an aspect of the general conception of human beings as active, symbol-using creatures intentionally engaged in joint projects" (p. 1).

While I might dispute whether discourse is the characteristic feature of human life, or, more realistically a characteristic feature, I do go along entirely with the main point that Harré & Stearns are making. Discursive psychology, together with the allied field of social constructionism, constitutes a new and distinct paradigm of inquiry, that stresses a particular view of human beings, and introduces major new methods of inquiry. This is what I have called the discursive calculus. It is not the calculus of the human sciences, but it is a major component of this paradigm.

In my original paper (Hiles, 1998), I was mainly concerned with the outline of this discursive calculus, and this is presented in Figure 2.2. Its chief features are the division into: a theory of sign function, and a theory of context. Signs are the carriers of meaning, and are used subject to certain prescribed and proscribed contexts. This division seems justified by the simplified model of meaning that is illustrated in Figure 2.3. The scientific study of sign function is pretty well established, viz. semiotics, and I have discussed the typology of sign function elsewhere (Hiles, 1997).

Context, however, is another matter. The study of context, with some exceptions, is still in its infancy. Context is a key issue because the nature of signs varies from completely arbitrary meanings (artifice) to deeply motivated meanings (motif). Arbitrary signs (e.g. language) are highly dependent upon explicit codes for their management. These codes relate to the selection (paradigmatic codes) and the combination (syntagmatic codes) of signs. The field of linguistics is more or less the study of such codes.
Figure 2.2 The discursive calculus
Figure 2.3 A simplified model of meaning
Note that the term "paradigmatic" (as designating selection from a category) is being used slightly differently here to the way it is used in the model of disciplined inquiry (designating a set of assumptions). It is also the case that motivated signs (e.g. visual cultural symbols) are subject to codes of selection and combination, but these codes are much less explicit. The fields of cultural psychology and narrative psychology are especially relevant here.

In addition, all signs are subject to rules, standards and conventions for their use in the exchange of meanings. This forms the basis of human joint action, and is what I have called discursive context. The emphasis here is on understanding human behaviour as situated occasioned action (Edwards & Potter, 1992; Hiles, 1996b). This is possibly the major focus of much of current discursive psychology research.

Context is possibly one of the most important areas of research that human science needs to address. Human beings need to be very good at discerning context in almost every aspect of their daily lives. The fact that psychology has hardly devoted much attention to the study of context is a very serious and embarrassing admission. If we are to begin anywhere (see Table 2.2), then it is helpful to breakdown discursive context into a four-fold scheme which stresses how context arises through processes of: social construction, cultural embeddedness, conscious and unconscious motivation, and the spiritual tensions inherent to human existence. A specific research interest of mine is the way in which people, faced with a lack of context for a particular event or situation, will adopt or invent a context of their own by using narratives (Hiles, 1994b, 1996b, 1996c).

There is a curious property of narratives pointed out by Watzlawick, Beavin & Jackson (1967) that is relevant here. What they have more or less characterize as third-order knowledge corresponds to narrative structures I have been studying. Watzlawick et al suggest that:

". . . there is a strong reason to believe that it is really quite irrelevant what this third-order knowledge of the world consists of, as long as it offers a meaningful premise for one's existence" (p. 261).

Human beings need context. When context is not available, they seem to invent it for themselves. It little matters what the resulting context is, as long as the context is made available in some way. The work of Sarbin (1986), Polkinghorne (1988), and Bruner (1986, 1990) is especially relevant here.
<table>
<thead>
<tr>
<th>CONTEXT</th>
<th>THEME</th>
<th>e.g.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Situational</td>
<td>Social Construction</td>
<td>preceding and following event sequences; rules, expectations, protocols, social structures, discursive rules, etc.</td>
</tr>
<tr>
<td>Cultural</td>
<td>Culturally Embedded</td>
<td>historical, institutionalized expressions of conscious and unconscious themes; rituals, ceremonies, myths, legends, etc.</td>
</tr>
<tr>
<td>Personal</td>
<td>Conscious/Unconscious Motivation</td>
<td>memories, identity, personal constructs and narratives; creative imagination; projections, transferences, anxieties, feelings, defences, etc.</td>
</tr>
<tr>
<td>Transpersonal</td>
<td>Spiritual Tension</td>
<td>discernment of existential givens, collective themes and concerns, mysteries, archetypal qualities, etc.</td>
</tr>
</tbody>
</table>
I think it should be clear that the main emphasis of my proposed calculus for the human sciences is inclusiveness. I am not interested in developing a scheme that sets out to exclude useful and innovatory ways of inquiring into the human realm. Nor am I interested in a bewildering ragbag of theories and models and methods of research that offer themselves either to misuse or likely obscurity. My search for a calculus for the human sciences is designed to bring order and structure to want I think are the most important issues that our discipline now faces. I will finish with two brief illustrative examples of how this emerging scheme can be of help.

**Two illustrative examples**

- **Tensions between Data Analysis and Paradigm Assumptions**
  By far the most common form of inquiry involving qualitative data collection involves interviewing. As a *method* of data collection, the processes of structured and semi-structured interviewing are certainly a worthy topic for study (Breakwell, 1995; Mishler, 1986; Robson, 1993; Smith, 1995). In using interviewing as a method of data collection, and in analyzing interview data it well worth bearing in mind Mishler's (1986) description of interviewing as *"the joint construction of meaning"*. Interviewing will usually involve tape recording, followed by transcription, and then analysis into themes, codes, etc. What I am mainly concern with here is the *analysis* of interview data. There are several approaches to this which come under the general heading of *discourse analysis* (Burr, 1995; Gill, 1996; Potter, 1996).

  The choice of approach to discourse analysis is crucial when considered in the context of the *paradigm* of research being used (Hiles, 1999a, 2000a). Many approaches to discourse analysis are derived from a social constructionist perspective that makes various paradigmatic assumptions which may not be compatible with the perspective to be taken. This may especially be the case in research in health psychology, counselling, psychotherapy, etc.

  When I first began to use discourse analysis to analyze interview data I had collected in connection with people's attraction towards the helping professions, I rather blindly adopted the recognized approach that had been adopted within social psychology. These analytical techniques were framed
within a rather extreme form of social constructionism, that saw people's actions, and the accounts people gave of their actions, as more or less the product of their discursive or linguistic environments. I have subsequently come to see such a perspective as little more than a thinly veiled behaviourism (Hiles, 1997d), but at the time I simply felt only disappointment for the outcomes of the analysis. The research question I had framed for my research was explicitly concerned with the lived experiences people in the helping professions could relate about their choice of work. It was as a result of this paradigm clash, that I began eventually to develop the model of disciplined inquiry.

Recently, I have begun to use a slightly different approach to discourse analysis that seems to allow a form of analysis that facilitates the type of inquiry I wish to undertake. This particular approach is called *Interpretive Phenomenological Analysis* (IPA), and was developed by Smith, Jarman, & Osborn (1999). They point out that discourse analysis:

". . as generally conceived of in contemporary social psychology, is sceptical of the possibility of mapping verbal reports on to underlying cognitions [. . discourse analysis] regards verbal reports as behaviours in their own right which should be the focus of functional analysis. IPA by contrast is concerned with cognitions, that is, with understanding what the particular respondent thinks or believes about the topic under discussion. Thus, IPA, while recognizing that a person's thoughts are not transparently available from, for example, interview transcripts, engages in the analytic process in order, hopefully, to be able to say something about that thinking" (p. 219).

The point that I specifically wish to make is that data analysis tools are not independent of paradigmatic assumptions. Indeed, the casual adoption of qualitative methods is a fairly pointless exercise without a consideration of the underlying paradigm(s) being used. The model of disciplined inquiry, and the related calculus for the human sciences is designed to make such considerations explicit and straightforward.

*Theorising human differences*

For my second example, I would like to examine an issue that particularly illustrates the importance of meaning in understanding human actions. I will draw upon another research interest of mine - *human differences*. This is a
very well established topic within psychology, but this has largely been framed within the paradigm of psychometrics - the measurement of human differences. I will not enter into a critique of psychometrics here, but I do want to examine how a human science approach to human differences could make a contribution to this important area. At this present time, I am not aware of anyone else who has attempted to do this, but the issues raised seem to suggest that a human science approach is long overdue.

My own understanding of human differences has been strongly influenced by the British sociologist and cultural theorist, Stuart Hall. In a lecture that he delivered at Goldsmith's College, London, in 1996, Hall argues that human differences should be approached from a discursive perspective.

Hall (1996) specifically concerns himself with racial differences, i.e. he focusses on just one of the great classificatory systems of difference which operate in human society (e.g. Gender/Class/Ability/Race/Sexuality/Age). His proposal is that race is a discursive category, and should be recognised as a floating signifier.

It is the meanings given to racial differences that matters, not the differences themselves, and meanings are not fixed, but float and slide, depending upon discursive context. Of course, the reality of human diversity in terms of physical, social and psychological differences (what Michel Foucault means when he talks about the extra discursive) is not being denied. What matters are the systems of thought and language we use to make sense of these differences. When human differences become organized within language, within discourse, within systems of meaning, then these differences take on specific meanings, and become a factor in the discursive organization of human action. The word “discursive” is used here to mark the transition theoretically, from a more formal understanding of difference, to an understanding of how ideas and knowledge of various differences inform human actions and become embedded in various social and cultural practices.

Hall’s argument clearly generalizes to every category of human difference. It offers a model of human differences, in terms of how they are used in human interaction, which proposes that human differences actually work like a language. It is my believe that this insight could provide a basis for a completely revised programme of research into human differences that could be approached from within the human science paradigm of inquiry.
☐ **Summary**

In this lecture, I have argued for the return of the human science paradigm, and the recognition of its rightful place alongside the natural science paradigm in psychology. This is designed to offer a considerably wider range of research approaches for psychology to explore, together with a more systematic way of placing existing and emerging inquiry paradigms into some kind of general model of inquiry. I have also proposed a calculus for the human sciences designed to bring this potentially confusing field into some kind of order and structure, and I have explored the discursive calculus here in some detail. In the next lecture, I will explore the phenomenological calculus a little further, and I will try to draw together these threads to make some overall conclusions.
Lecture 3: Paradigms Discerned

David Hiles
De Montfort University, Leicester, UK.

"Many of the most significant and exciting life events and extraordinary experiences - moments of clarity, illumination, and healing - have been systematically excluded from conventional research."

Transpersonal Research Methods for the Social Sciences. p. 3

"Human science seeks to know the reality which is particularly our own, the reality of our experience, actions, and expressions. This realm is closest to us, yet it is most resistant to our attempt to grasp it with understanding. Because of the success we have had knowing the world around us, the human realm has expanded its power to such an extent that we can act to create wellbeing and physical security and comfort and to inflict untold suffering and destruction. Serious and rigorous re-searching of the human realm is required."


Introduction
What I tried to do in my first two lectures was to give some idea of the scope of psychological inquiry through a model of disciplined inquiry. I then tried to develop that scope by spelling out what would be involved in a human science approach. Specifically, I examined what I have called the discursive calculus, with its particular emphasis on meaning, and the social/cultural context in which human actions are situated. In this final lecture, I want to examine more closely the phenomenological calculus, which constitutes the second main concern of the human science paradigm.
By the phenomenological calculus I mean that area of the human science approach which concerns itself with the exploration and systematic study of human experience, and the particular role played by meaning in the wide diversity of experiences that the human being is able to report. This approach is by no means a recent development in psychology. For example, the field of phenomenological psychology is well established, although not necessarily seen as mainstream, at least in the Western tradition. Indeed, it could be argued that this field has a much longer history than modern psychology itself, and has its roots in many ancient traditions and practices, across a wide range of cultures. My focus here will be very much on the recent upsurge of interest that has been shown in phenomenological inquiry. We will examine a number of emerging new paradigms of inquiry in psychology, especially in the rapidly expanding field of transpersonal psychology.

However, there is one other matter that I want to raise in relation to this general field of interest, and this is reflected in the two quotes I have used at the start of this lecture. Firstly, Braud & Anderson (1998) express very clearly a view held by myself, and many of my colleagues. For far too long, psychology has systematically excluded areas of human action and experience, that some psychologists think are too difficult to study, or even are not suitable topics of study, that many other psychologists are now claiming to be much too important to be ignored. Problems of measurement, and lack of appropriate methods of inquiry, have often been the stock excuses offered for the exclusion of these areas of study. I want to argue that such excuses are no longer valid, and we should begin to take seriously, the research findings that are beginning to be made available in these areas.

Polkinghorne's (1983) plea for a serious and rigorous "re-searching of the human realm" is in exactly the same vein. He points out that although this realm is closest to us, in the sense that it concerns our direct human experience, it can be most resistant to careful study. But he also warns that the imbalance between our efforts in the natural science approach, at the expense of human science, may be a contributory factor in the untold suffering and destruction that seems to be ever present in the modern psyche. I remember that Carl Jung expressed very much the same idea when he observed that "the future of humankind is held by a single thread, the human psyche." There is no more urgent topic to research than the human realm of experience, action and expression, especially the significant and exciting life events and the extraordinary experiences these can entail.
Each research inquiry begins with the formulation of a research question. This question becomes refined in the context of both the assumptions that need to be made, and the claims of the addition to knowledge that hopefully will be the outcome of the inquiry. When these paradigmatic assumptions are not very explicit, and the strategies of design, data collection and analysis are far from obvious, usually a process of discernment will follow. I first encountered the word "discernment" in the work of William Blake, and I am using it here to correspond to a reflective process of exploration and discovery leading to new conceptual, or theoretical, or practical distinctions that emerge from whatever is the focus of study or concern.

I am fairly certain that discernment is an important type of knowledge, with a major significance in its contribution to our understanding of both the ancient traditions of self-examination and modern psychology. Also, discernment is possibly a key activity in many of the human sciences, and in qualitative methods that involve interpretative data analysis. In many ways, the model of disciplined inquiry, and the discursive and phenomenological calculus, are the outcome of a process of reflective discernment. And in the title of this third lecture, my implication is that discernment plays a key role in how new paradigms of inquiry emerge. New and innovative paradigms of inquiry are discerned, as our research questions become more ambitious, more refined, and more urgent.

I will begin with a brief outline of the phenomenological calculus. I will then examine and explore four types of inquiry that seem to be the most relevant for the direction in which we seem to be heading. I will then conclude with a small example taken from my own research.

□ The phenomenological calculus
In my second lecture, I argued that human experience and action are best understood when the meanings that inform them are grasped. I proposed two broad sets of issues, the first of which is concerned with:

the role that meaning plays in human experience, in human awareness and consciousness.

It is this set of issues that is the defining focus of the phenomenological calculus, i.e. a set of rules procedures and methods for the systematic study of human experience.
The roots of the phenomenological approach within psychology come from the philosophical school of *phenomenology*, which was founded by Edmund Husserl, and developed further in the work of Martin Heidegger, Jean-Paul Sartre, and Maurice Merleau-Ponty, etc.

Following Franz Brentano, Husserl realized that *intentionality* was the distinctive mark of the mind and not consciousness per se. *I do not simply think* (and therefore I am), *but always think of something*. Human thought is always *intentional*. The mind and its object are inextricably linked, and consequently Husserl saw a method for overcoming Descartes' mind-body dualism (Husserl, 1929). Thus, the key assumption that follows from phenomenology is that human consciousness is structured by the principle of *intentionality*. A human thought always exists in relationship to a world of some kind. Basic to being human is the fact that we live in relationship to a world (*intentionality*), to other persons (*interpersonality*), and other subjects (*intersubjectivity*). Clearly any psychology interested in the study of subjective, lived experience and consciousness cannot ignore the field of phenomenology, and the various issues it raises. In my own research, I have spent considerable effort in trying to develop a model of human intersubjectivity (Hiles, 1997c)

There is one respect in which I think the application of phenomenology to psychology differs from its place in philosophy. One of the tasks that Husserl sets himself, in developing phenomenology, was a task that has been a perennial concern of Western philosophy. How can we eliminate uncertainty and doubt from our knowledge, i.e. to reach a point of certainty, from where we can build again our knowledge from this base of certainty? While this question may be of direct relevance to the philosophical enterprise, I would argue it has only of indirect relevance to psychology. *What we can be certain about* is a question for philosophy, but what is the nature of human conscious experience, and what role does it play in human action, is the question for psychology. But, because conscious experience was central to Husserl's scheme, the insights and theoretical principles that follow from it are clearly of major consequence for psychology.

The best way of dealing with this issue is by establishing a perspective of, what I have called, *phenomenological sensitivity*, i.e. a concern and sensitivity to the role played by conscious experience in all human action. It then becomes clear that the search in phenomenology for some principle of certainty is only of marginal interest to psychology, at least at present. There
is no implication intended here of discounting the obvious relevance of phenomenology to such areas as humanistic psychology, counselling and psychotherapy, however.

With psychology gradually taking on some of the insights and principles of phenomenology, there has been a paralleled development of the phenomenological calculus, which now includes a number of new and exciting inquiry paradigms. Together with the established approach of *phenomenological inquiry*, this includes: *heuristic inquiry, transpersonal inquiry,* and *mindful inquiry* (see Figure 3.1). These inquiry paradigms have clearly defining features that make them distinct from each other, while permitting considerable overlap too. While these four inquiry paradigms do not exhaust the field, they are the ones I think are most worth highlighting.

**Phenomenological Inquiry**

It is often remarked that phenomenology is as much a method as a particular school of philosophy. It therefore lends itself to the development of a calculus in the manner I have set out in the previous lecture. The notion of phenomenological inquiry as a distinct inquiry paradigm follows directly from this, and has been forcefully promoted in the early work of Amedeo Giorgi (1970). The more recent developments in this approach are well covered by Colaizzi (1978), Heron (1981, 1996), Giorgi (1985, 1995), Polkinghorne (1989), Spinelli (1989), Moustakas (1994) and Valle (1998).

Phenomenological inquiry aims to explore human experience by closely examining the descriptions of “phenomena” (conscious experiences), and uncovering the meanings embedded in those experiences. Descriptions are usually obtained through transcribed personal interviews, or the recorded experiential account of the researcher. The analysis proceeds by a continuous *bracketing* of presuppositions of the researcher and continuous reflection on meaning, and this leads to the *phenomenological reduction*.

The paradigmatic assumptions of this type of research are that human experiences not only *can* be studied, but are fundamental to the nature of knowledge itself, as well as being a central component of all psychological processes and human actions. From a strategic perspective there is an emphasis on co-operative inquiry, and a grounded theory approach. Data is collected in a variety of ways, but typically through interview, personal accounts and narratives. In practice, the analysis is descriptive, and involves
Figure 3.1 The phenomenological calculus

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a cyclic process of reading and re-reading, careful interpretation of meanings, leading to the search for invariances and patterns, breaking down the material into constituitive themes. These themes constitute what is seen as an understanding of the structure of the experience. I have summarized this process in Table 3.1. There are very many variants of this analytical process which this summary tries to bring together (Colaizzi, 1978; Giorgi, 1985; Denzin, 1989; Polkinghorne, 1989; Janesick, 1994; Moustakas, 1994; Heron, 1996; Smith et al, 1999). Throughout the process of interpretation and analysis a process of discernment and bracketing is involved. It is important to point out that, with the exception of work by Moustakas (1990) and Heron (1996, 1998), a serious examination and formal study of this process of discernment has yet to be undertaken.

The interpretative process is not without its difficulties and problems, and, we must be critical of the claims for bracketing of presuppositions, as they are sometimes quite unrealistic. It is my position that all research relies on its chosen paradigm, and therefore presuppositions are unavoidable. We simply need to work out ways of working with them, and not ways of eliminating them. In order to avoid confusion, I also prefer to make a distinction between phenomenological inquiry and heuristic inquiry, although I am aware this is not widely made at present. This distinction is based upon the contrast between working with data from the experiences of co-researchers as opposed to working with data from the researcher's own experience. I prefer to use phenomenological inquiry for the analysis of experiences of co-researchers, and heuristic inquiry for the analysis of the researcher's own experience.

Heuristic Inquiry

Heuristic inquiry was developed by Clark Moustakas (1990), and bares some striking resemblances to the idea of lived inquiry developed by John Heron (1998). The heuristic inquiry paradigm is an adaptation of phenomenological inquiry but explicitly acknowledges the involvement of the researcher, to the extent that the lived experience of the researcher becomes the main focus of the research. Indeed, what is explicitly the focus of the approach is the transformative effect of the inquiry approach, through a process of what I think can usefully be called discernment. Moustakas has identified a number of core concepts, and the seven basic phases involved in this approach, and these are set out in Table 3.2.
<table>
<thead>
<tr>
<th>TABLE 3.1 The key stages of analysis in phenomenological inquiry</th>
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<tbody>
<tr>
<td>[interview/personal account/self-story]</td>
</tr>
<tr>
<td>→ transcription</td>
</tr>
<tr>
<td>→ holistic reading</td>
</tr>
<tr>
<td>→ extract significant statements</td>
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<td>→ meaning statements</td>
</tr>
<tr>
<td>→ theme clusters</td>
</tr>
<tr>
<td>→ constituent themes</td>
</tr>
<tr>
<td>→ comprehensive constituent themes</td>
</tr>
<tr>
<td>→ final comprehensive constituent themes</td>
</tr>
<tr>
<td>→ [return to the co-researchers for feedback and verification]</td>
</tr>
</tbody>
</table>

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Moustakas (1990) has developed his own very demanding version of an approach which he calls *heuristic inquiry*. This identifies the following processes:

**Concepts:**
- Identify with the focus of the inquiry
- Self dialogue
- Tacit knowing
- Intuition
- Indwelling
- Focussing
- Internal frame of reference

**Phases:**
- Initial engagement
- Immersion
- Incubation
- Illumination
- Explication
- Creative synthesis
- Validation of the heuristic research
Here is how Moustakas (1990) describes this unique approach to research. He proposes that heuristic inquiry involves:

"... a process of internal search through which one discovers the nature and meaning of experience and develops methods and procedures for further investigation and analysis. The self of the researcher is present throughout the process and, while understanding the phenomenon with increasing depth, the researcher also experiences growing self-awareness and self-knowledge (p. 9).

"... The heuristic process is a way of being informed, a way of knowing (p. 10) ... From the beginning, and throughout an investigation, heuristic research involves self-search, self-dialogue, and self-discovery; the research question and the methodology flow out of inner awareness, meaning, and inspiration. When I consider an issue, problem, or question, I enter into it fully ... I may challenge, confront, or even doubt my understanding of a human concern or issue; but when I persist in a disciplined and devoted way I ultimately deepen my knowledge of the phenomenon ... I am personally involved ... I may be entranced by visions, images, and dreams that connect me to my quest. I may come into touch with new regions of myself, and discover revealing connections with others (p. 11).

"... Essentially in the heuristic process, I am creating a story that portrays the qualities, meanings, and essences of universally unique experiences (p. 13) ... In heuristic research the investigator must have had a direct, personal encounter with the phenomenon being investigated. There must have been actual autobiographical connections (p. 14).

"... Heuristic inquiry is a process that begins with a question or problem which the researcher seeks to illuminate or answer. The question is one that has been a personal challenge and puzzlement in the search to understand one's self and the world in which one lives. The heuristic process is autobiographic, yet with virtually every question that matters personally there is also a social - and perhaps universal - significance (p. 15).

There is clearly more involved in heuristic inquiry than the researcher simply analyzing their own experience, which could easily be seen as a
variation of phenomenological inquiry. What Moustakas seems to offer is the much wider context within which the researcher engages with the research question, examines their own experience amongst a number of other explorations, and follows this through with an awareness of the transformative processes at work in the research enterprise.

□ Transpersonal inquiry

Transpersonal psychology has been called the fourth force in psychology, and represents a distinct new paradigm within psychology, because its assumptions and presuppositions are so different. At the heart of the transpersonal approach to psychology is an attempt to place human life and experience in its widest possible context. I personally cannot see that it matters in the least whether different cultures and groups of people, at different times in human history, have come up with very different visions of reality, of our place in it, and the associated religious practices that help give meaning to human existence. What does matter is the recognition by psychology of the role that transpersonal beliefs and practices play in peoples’ lives, and the important place these can have in explaining and understanding an individual’s experience, actions, growth and development.

In Hiles (2000b), I describe the aim of transpersonal psychology as to offer a synthesis of what may seem, on the surface, to be two quite different traditions - science and spiritual practice, and what has emerged is a new field offering new approaches to psychotherapy, human development, crisis, etc. Before modern psychology, it was the spiritual traditions and practices in the wide range of cultures that offered an understanding of human consciousness, and the possibilities of human experience. Transpersonal psychology can be seen as an attempt to bring the world’s great spiritual traditions together with the basic ideas of (Western) modern psychology. This has, to a large extent, already been achieved in Eastern psychology, we are just coming rather late to this in the West!! The vitality and enormous scope of this field is demonstrated, amongst many other examples, in the pioneering vision of Ken Wilber (1977, 1980, 1983, 1998, 2000), in research on spiritual emergence/emergency and the model of the holotropic mind developed by Stanislav Grof (1985, 1988, 1998; and with Christina Grof 1989, 1990), and in John Heron's (1998) proposal for a person-based, person-centred spirituality.
<table>
<thead>
<tr>
<th>Conventional Methods of Disciplined Inquiry</th>
<th>Intermediate Approaches to Research</th>
<th>Transpersonal Approaches to Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Experimental designs</td>
<td>1. Phenomenological approach</td>
<td>1. Integral inquiry</td>
</tr>
<tr>
<td>5. Correlational approaches</td>
<td>5. Cooperative inquiry</td>
<td>5. Inquiry informed by exceptional human experiences</td>
</tr>
<tr>
<td>6. Causal-comparative studies</td>
<td>6. Participatory research</td>
<td></td>
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<td>7. Naturalistic and field studies</td>
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<tr>
<td>8. Theoretical approach</td>
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<tr>
<td>9. Grounded theory</td>
<td></td>
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<tr>
<td>10. Historical and archival approaches</td>
<td></td>
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</tr>
<tr>
<td>11. Content analysis, textual analysis and hermeneutics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Narrative and discourse analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Case studies and life stories</td>
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<td></td>
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<tr>
<td>14. Interviews, questionnaires and surveys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Meta-analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Parapsychological assessments and design issues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Physiological and biomedical assessments and design issues</td>
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</table>
While the transpersonal field has been developing since the early 1970’s, it has been more or less waiting for appropriate research methods in order to emerge into the mainstream. The very nature of the transpersonal paradigm, where the basic assumptions of the field are so different from other areas of scientific inquiry, requires paradigms of inquiry that are necessarily quite different. Recently however, considerable progress has been made in the development of research methods more appropriate to the paradigm of transpersonal inquiry. Braud & Anderson (1998), Heron (1998) and Valle (1998) have considerably extended the range of research methods that this area might adopt. These include lived inquiry, integral inquiry, intuitive inquiry, organic research, transpersonal-phenomenological inquiry, inquiry informed by exceptional human experiences.

Braud & Anderson's work in particular reflects the need for a systematic approach to the development of new inquiry paradigms. They also use the term disciplined inquiry to characterize the research process, but do not offer a model in the way that I have done. They do draw up a general scheme which usefully tries to bring some order to the confusing diversity of methods of data collection and analysis, which I have summarized in Table 3.3. They propose five new methods for transpersonal research, which, although I would argue do not seem to differ significantly from the intermediate approaches, are still useful variants of the inquiry process that will clearly extend the field. I have summarized these in Table 3.4.

☐ Mindful inquiry
There is one last approach that falls within the phenomenological calculus rather well, and that is the refreshingly different approach to research called mindful inquiry (Bentz & Shapiro, 1998), which is summarized in Figure 3.2. Mindful inquiry is described as a synthesis of four intellectual traditions: phenomenology, hermeneutics, critical social theory, and Buddhism. Scientific research is recognized as one of our many ways of knowing, and needs to be connected with the other ways. The emphasis in this approach is in placing the inquirer at the centre, and research from this perspective is seen as intimately linked with the awareness and the experienced world of the researcher. Research can be seen to contribute explicitly to the transformation of the researcher's sense of self or identity. The idea of bringing mindfulness into disciplined inquiry is exciting, as it stresses focus, intention and awareness of whatever is present in a situation or experience.
<table>
<thead>
<tr>
<th>Transpersonal Approaches</th>
<th>Brief outline of the approach</th>
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<tbody>
<tr>
<td>Integral inquiry</td>
<td>Inquiry is multifaceted and pluralistic - and explores a research question that has great significance to both researcher and co-researchers - the nature of the research question determines the choice of methods, data sources, alternative forms of knowing and ways of working with data</td>
</tr>
<tr>
<td>Intuitive inquiry</td>
<td>This approach uses transpersonal skills, such as intuition and alternative states of consciousness - essential features of method include compassion and sympathetic resonance, which are extended to every level of the inquiry</td>
</tr>
<tr>
<td>Organic research</td>
<td>This approach has grown from heuristic and feminist approaches to inquiry - it emphasises the transformative power of inviting, listening to, and presenting participant's stories - with the goal of personal transformation in response to these stories</td>
</tr>
<tr>
<td>Transpersonal-Phenomenological Inquiry</td>
<td>This approach has been developed by Ron Valle and proposes that transpersonal awareness is &quot;prior to&quot; any pre-refeective structure of a particular experience - when transpersonal awareness presents itself in consciousness it is possible to infer the underlying themes using conventional phenomenological inquiry</td>
</tr>
<tr>
<td>Inquiry informed by exceptional human experience (EHE)</td>
<td>EHEs are extremely rich in life-changing impacts, providing bridges to other ways of knowing - this includes mystical, unitive, psychic, unusual death-related experiences, etc. - such experiences need to be invited, noted, and recorded as they occur- be recognized, honoured and studied for their own sades</td>
</tr>
</tbody>
</table>
Figure 3.2 Mindful inquiry - four knowledge traditions
(Bentz & Shapiro, 1998, p. 38)
These are of course the essential qualities of all human inquiry. Some of the ideas involved in this approach that are listed by Bent & Shapiro are given in Table 3.5. There is of course considerable overlap here with some of the other inquiry paradigms that we have looked at. But the point is that we need to be open to these different possibilities, the different emphasis and different traditions.

There is one aspect of mindful inquiry that I have special interest in, and that is the inclusion of critical social theory, which is also included in Guba & Lincoln's (1994) scheme (see Figure 1.5). I do not have time to develop this point in these three lectures, but one of the features of critical theory that I think is most important is the recognition that theories, explanations and understanding can be empowering. One of the goals of psychological inquiry must be empowerment, i.e. the use of psychological knowledge to empower people to make informed choices, express themselves freely, and challenge discrimination, oppression and unnecessary suffering. This is the expressed aim of such areas as feminist psychology (Nicolson, 1994), and much of discursive and critical psychology (Parker, 1998).

Some tensions arising in phenomenological inquiry
All four approaches within the phenomenological calculus, which we have looked at, share one thing in common - the focus on the exploration and study of human experience. The study of human experience is certainly not without its difficulties, not least of which is the sheer breadth of experiences this would entail. As a final thought, I have tried to take a broad view of the nature of this field of study by identifying a number of tensions that seem to underly much of the research involved. Five of these tensions are presented in Table 3.6. There seems to be a fundamental tension between experience that is grounded in human knowledge systems or in more everyday occurrences, and experience that is more subtle, involving perhaps deeper or altered states of consciousness. This table reflects another thread of the phenomenological calculus within the human science approach. Human experience may be constructed, or principled by the culture we are embedded in, or may reflect a more directly experienced "found" order in things. It may be spontaneous, or may result from proven practices or rituals. It may be common and ordinary, or quite exceptional in nature. It may be intentional, or may involve transcendent experience of the subjective experience of knowing itself. It may be grounded in the ego and self, or may be transpersonal, beyond ego and self.
TABLE 3.5 Mindful Inquiry

Bentz & Shapiro (1998, p. 6-7) provide a list of 13 ideas that are central to mindful inquiry. Six of these are highlighted here:

- Awareness of self and reality and their interaction is a positive value in itself and should be present in research processes.

- Tolerating and integrating multiple perspectives is valued.

- It is important to bracket our assumptions and look at the often unaware, deep layers of consciousness and unconsciousness that underlie them.

- All research involves both accepting bias - the bias of one’s own situation and context - and trying to transcend it.

- We are always immersed in and shaped by historical, social, economic, political, and cultural structures and constraints, and those structures and constraints usually have domination and oppression, and therefore suffering, built into them.

- Inquiry often involves the critique of existing values, social and personal illusions, and harmful practices and institutions.
<table>
<thead>
<tr>
<th><strong>&lt; GROUNDED &gt;</strong></th>
<th><strong>&lt; SUBTLE &gt;</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Principled experience</strong></td>
<td><strong>Discerned experience</strong></td>
</tr>
<tr>
<td>leading to knowledge derived</td>
<td>leading to knowledge of</td>
</tr>
<tr>
<td>from an &quot;imposed&quot; order</td>
<td>a &quot;found&quot; order</td>
</tr>
<tr>
<td><strong>Discovered</strong></td>
<td><strong>Practised</strong></td>
</tr>
<tr>
<td>experience derived from</td>
<td>induced experiences through</td>
</tr>
<tr>
<td>everyday happenings, events</td>
<td>rituals, shared practices</td>
</tr>
<tr>
<td><strong>Vulgar</strong></td>
<td><strong>Extraordinary</strong></td>
</tr>
<tr>
<td>common, ordinary, normal experiences</td>
<td>uncommon, unusual, unique experiences</td>
</tr>
<tr>
<td><strong>Intentional</strong></td>
<td><strong>Transcendent</strong></td>
</tr>
<tr>
<td>focus on the content of</td>
<td>the experience of knowing itself,</td>
</tr>
<tr>
<td>thought (whether real or imagined)</td>
<td>witnessing the act of knowing</td>
</tr>
<tr>
<td><strong>Lived experience</strong></td>
<td><strong>Transpersonal experience</strong></td>
</tr>
<tr>
<td>centred in the self</td>
<td>beyond self, &quot;what am I a part of?&quot;</td>
</tr>
</tbody>
</table>
**An illustrative example**

For a number of years now, I have been engaged in a research project that could be said to have almost taken over my life. It began with some insights from the work of the 18th Century English poet and artist William Blake. These insights particularly related to understanding the processes of transformation that can be involved in the experience of human suffering. I especially wanted to apply these insights in my practice as a counsellor and therapist, and also engage in research that would bring some form to these insights that could then be shared with others in the field.

When this all started, I was not even that sure that what I was doing could even be called "research." In fact, it was only several years later that I discovered that what I had been doing all along was really heuristic inquiry, or perhaps even mindful inquiry. Coming across the work of Clark Moustakas (1990), I immediately recognised the phases of engagement, immersion, incubation and illumination in my own work. I have reported some of the methodological issues involved in this work before (Hiles, 1999b), and I only will briefly summarise here some of the insights that I have gained about the nature of heuristic inquiry from my own direct experience in using it.

(i) Heuristic inquiry is a research process that is difficult to set any clear boundaries to, with respect to duration and scope - it should not be undertaken lightly.

(ii) In heuristic inquiry, the research question chooses you - the research question is usually deeply personal in origin.

(iii) Heuristic inquiry highlights the importance of working with the heuristic process of others - especially with the historical recordings of previous inquiry - indeed, it turns out that the works of writers, poets, artists, spiritual leaders and scientists can all be usefully treated as the creative products of heuristic inquiry - heuristic inquiry was probably the first research method adopted for psychological inquiry.

In addition to my own self exploration and lived inquiry, I have also designed and carried out several phenomenological/co-operative inquiries. I have interviewed people who have claimed to have had a near-death experience, people who have been victims of serious crimes, and people who have been attracted to voluntary, or paid work, in a helping role with others.
(i.e. counsellors, carers, nurses, social workers, advocates, etc.). I will report on the analysis of some data from this latter area.

In Table 3.7, I have presented a short piece of transcription from a much longer interview with an adult male who has spent much of his later life in a helping role with other people. The research question behind this research is:

\[ \text{to what extent does a life crisis, or an experience of suffering, lead to a person choosing to be in a helping role with others?} \]

I can only illustrate the approach to analysis. I used IPA (Smith et al, 1999) because it is clear, straightforward and was certainly preferred over other approaches to discourse analysis, since it takes on a phenomenological approach. I approach an interview as a process that will involve the joint construction of meaning. I try to keep an open mind, and simply try to facilitate the co-researcher in exploring their experience in the way they feel most comfortable. Although the topic, that has been mutually agreed upon, is something that I have proposed, I rarely have more than three or four questions that I expect to ask. The analysis involves a careful transcription, which is then arranged in a column down the middle of a page, with wide margins to each side. Emphasis is coded by underlining, silences and pauses are indicated by square brackets [ . . ]. Identifiers are removed or replaced by neutral words. After reading and re-reading the transcript several times, the margin notes can be made. The left-hand margin, is used for anything that strikes me as significant or interesting. My own technique involves selecting useful or apt phrases from the transcription that seem important, and putting my own comments in [square brackets]. The right-hand margin is used to note emergent themes, and highlighting key phrases that repeat, or seem to be most salient. The next stage would involve looking for connections, generating theme clusters, and then a list of constituent themes.

The matter that I would like to highlight here is that although the analysis seems to generate a productive set of basic themes from the original data, there is still a feeling of incompleteness in the analysis (Hiles, 2000a). This incompleteness can be summarised as follows:

(i) the process involved in the identification of themes has been fairly well formulated, but this usually is at the expense of retaining some notion of context - and as I have pointed out before, context is a necessary constituent of meaning.
Int.  "One last question. Can you imagine the last ten, fifteen years not being in a helping role with people? What would life be like?"

Co.  "I couldn’t, I mean, this has, this has been life-giving to me really. You know - it’s a - it’s a - it’s suckered me, whatever, I don’t how you put it. It’s been my life blood as it were - really. [...] I feel as I always want to be doing this [...] and I can’t think of me not doing it.

And I had a heart attack [...] 6 years ago [...]. But I couldn’t wait to get back, to carry on what I started [...] And - and things like a heart attack help you enormously - because you get a lot of support. [People] visited me, everyone was around, everyone rallied around, was so good, so good.

I remember I was to preach a sermon at the church on the Sunday night. I had me heart attack on the Saturday [...] And they came and fetched my sermon. I had it written out anyhow. And they read it out, and they all prayed for me [...] And I knew that would happen. [...] And I drew comfort from that..."
(ii) One obvious aspect of context is narrative, and techniques of discourse analysis and phenomenological analysis are woefully poor in analysing narrative. I have argued previously for the careful analysis of structure and topic changes in counselling and interview transcripts (Hiles, 1996c).

(iii) What is not said also creates problems for analysis - the basic grounded theory approach that requires continuously going back to the data - causes much difficulty with respect to silences, evasions, denials, etc. (I once observed this in data that was not mine. An interview with a terminally ill patient, who kept up the position that they were unaware of their condition - IPA seemed to fall far short of the subtle nuances of meaning in that material).

Each of these three issues is illustrated in the data in Table 3.7. Context is a continuing challenge to capture, the transcript and analysis illustrate two spontaneous narrative accounts, which mirror the subtle topic change in the co-researcher's account (Hiles, 1996c). There are also a number of silences towards the end of this part of the transcript that have "meaning." The challenge is to extend the calculus to such issues, but this can only be done by first collecting the data, which then reveals the problems to be faced by researchers working in this field of inquiry.

☐ Summary
I did not set out to persuade anyone to change their research methods, but instead I have tried to make out a case for an openness to a wider range of methods of inquiry. I have tried to clarify some of the confusions and controversies that plague this area of debate. At the heart of my proposals is a model of disciplined inquiry that places the whole research process in a general context.

I have argued that there is a place in psychological inquiry for a human science approach. This approach entails:

☐ an exploration of a wider range of paradigms

☐ a preparedness to work with qualitative data
considering a wider range of research strategies and methods of data collection

a serious and systematic study of meaning

the study of context

the study of human experience

a commitment to examine and critique these paradigms of inquiry in order to refine and improve them

I am certain that psychology will never progress as a science without a commitment to research, and the adoption of appropriate methods of inquiry. And, I am fairly certain that psychology will not progress much further with just the one recognised paradigm of inquiry.

What is needed is a number of different paradigms, with each committed to establishing its own criteria for being rigorous, systematic and convincing. I have pointed out the red herrings that I think we might be in danger of being mislead by, and I have offered a general model of disciplined inquiry within which we can all work alongside each other.

I set out on my three tasks with the intention of erecting a few signposts, so that if you ever find yourself walking this way again, then you will be able, more or less, to find your way about. And that is what I hope you can discern that I have been able to achieve. Thankyou.