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CHANGING TRADITIONS IN INDUSTRIAL RELATIONS RESEARCH

Keith Whitfield and George Strauss

Introduction

In *Researching the World of Work: Strategies and Methods in Industrial Relations Research* (Whitfield and Strauss, 1998), we made a number of points about the way in which IR research is undertaken, and how it might respond to the challenges currently facing it. In particular, we stated that the '…tide engulfing industrial relations is strong… but we feel that allied to changes in conceptual tools, a broadening of scope, and possibly a modification of the field's title, the development of a distinctive and powerful approach to research design can contribute to a renaissance in the field….' (Whitfield and Strauss, 1998, 294).~~.~~ [1]

Since then, we have undertaken a content analysis of the field's main academic journals covering almost half a century (Whitfield and Strauss, 2000~~). It was~~ *but* oriented around the themes developed in the book. The analysis was quite narrowly-focused, but allowed us to check whether our perceptions were mirrored in the main journals, albeit only those that are more empirically tractable. It was followed by a not dissimilar paper by Carola Frege (2005) which examined similar themes and addressed some new issues.

We also listened closely to the views of those who reviewed the book, to see if there were any profound disagreements with our views. Most readers seemed to accept our caricature of the past, present and future of the field. Less encouragingly, however, few of those reacting to our rather pessimistic views of the future offered suggestions as to how it might be made brighter.

This chapter has three main objectives. The first is to outline the arguments we made in our 1998 book. Our treatment is deliberately concise; those wanting more depth can consult the original. The second objective is to examine our assertions in the light of the two journal content analyses, ours and Frege*'s*. Thirdly, we address the question of where IR goes from here.

A Field in Flux

Academeic Industrial Relations faces some difficult dilemmas, and its future ~~as a field of study~~ depends on how it responds. These dilemmas originate from a number of key shifts[2] in the topics that the field seeks to understand, in the structure of academia, and in the opportunities open to researchers~~.~~

It is something of a cliché to say that research in IR is in a state of flux. There are, however, probably stronger grounds for saying this now than ever before. The field's subject matter is changing ever more markedly, its conceptual framework is under increasing scrutiny, boundaries between it and related fields of study are becoming ever more blurred, and new research techniques are continuously being developed. These

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[1] Keith: a slight cut. I think we refer to ourselves too often, especially in our introduction.
[2] Eliminate hyphen

changes are broadly linked to a series of transformations in how work and the employment relationship are perceived. There is a much wider recognition of the importance of what some call ”labor” (and others “human resources” or “human capital”) to the prosperity of modern economies and the development of a “good society.” Organizations are much more likely to recognize that the utilization of human resources is pivotal in attaining competitive advantage in ever-more-complex product markets.

Seventy years ago, academic IR covered broadly both what Kaufman (2004) called “Institutional Labor Economics” and “Personnel Management”. Gradually, as Kaufman documents, it narrowed its scope to primarily union-management relations. But more recently there is some evidence that its scope is once again broadening Issues such as “high-performance” work practices, occupational health and safety, employment discrimination, employee satisfaction, job security, and comparative international industrial relations have come to play an important role in the research agenda. This broadening of scope has been associated with greater interchange between IR researchers and scholars from other fields. Topics such as the decline in union density are covered increasingly by scholars who are not normally identified with IR (for example, Clawson, 2003; Voos and Sherman 2000). Inevitably, there has developed a questioning of the efficacy of differing approaches to examining the employment relationship.

Just asthe problems with which academic IR deals have changed, so have the research techniques used to study themThe advent of the computer has made possible the quick and cheap analysis of massive data sets. This has caused major changes in research techniques throughout most of the social sciences. As a consequence, academic discourse has become increasingly quantitative.

Changing Problems

One of the distinctive characteristics of IR has been its focus on socially defined problems. For example, before 1940, IR research in the United States concentrated on the legit Imation of unions and the case for social insurance (Millis and Montgomery 1938-45). During the immediate postwar period, there was much industrial unrest and the focus turned to strikes and inflation (Strauss and Feuille 1978). During the 1960s, it was training and race relations. More recently, the dominant themes have been the decline of unions, the attempts to reinvigorate them (Voss and Sherman 2000), and the impact of participation schemes (Ichniowski et al., 2000)

British IR research focused on unions and union-management relations during the 1960s, on shop-floor labor-management relations during the 1970s, and, more recently, on the role of management and work organization. The heightened interest in human resource management has contributed to the recent burst of British scholarship in that area. The decentralization of bargaining in contemporary Australia has been accompanied by a greater research emphasis on workplace issues.

The perceived nature of problems also affects the funding that is available, and this greatly influences the *kind of* research ~~that is~~ done. In the early1970s, there was liberal government financing of poverty and training studies in the United States. More recently,

Sloan Foundation funding has paved the way for extensive research on "high-commitment" workplaces. Perceived social problems led to the establishment of the Donovan Commission in Britain (Royal Commission on Unions and Employers' Associations 1968), the Hancock Committee in Australia (Hancock 1985), and the Dunlop Commission in the United States (Commission on the Future of Worker-Management Relations 1994*)*. Each sponsored important research, and also inspired a host of related funding opportunities and research studies.

From Policy to Theory

Compared with related fields and disciplines, IR research has traditionally been heavily ~~policy~~ focused *on the major policy issues of the time*. As a consequence, relative to more theoretically-inclined fields, it has tended to: (1) be more multidisciplinary, (2) be more focused on a number of different organizational levels, (3) be more based on representative samples, (4) more often involve respondents who are role holders rather than private individuals, and (5) be more likely to examine complex causal processes. In recent years, however, IR research has shown an increasing tendency to become more oriented towards issues that are of more interest to fellow academicians than policy-makers, potentially weakening the link between research and policy.

Less Inductive, More Deductive

The highly inductive tradition of context-specific research, once dominant in IR research in English-speaking countries, is clearly under siege *(Cappelli 1985)* . The earlier approach was predominantly based on intensive studies of individual situations, typically with the purpose of coming to focused policy recommendations, and possibly a contribution to middle-range theory. It was perhaps best known for its extensive use of the case method. In the United States, the pioneering study of this type was John R Commons' single case study of shoemakers (Commons, 1909). In Britain, a similar impact resulted from the work of Sidney and Beatrice Webb. Theories were relatively unimportant, but to the extent they developed, they emerged from the facts, not as logical deductions from other theories.

Now dominant in the US, and increasingly important in other English speaking countries, is a more deductive approach that is far less grounded in specific research context*s*. The deductive approach seeks <u>general</u> laws that apply in every situation <u>to some extent,</u> even though they may explain only part of any given situation. The search for such laws starts from hypotheses (for this reason it is sometimes called the "hypothetico-deductive" approach). In Industrial Relations, these hypotheses ~~have~~ traditionally *were* ~~been~~ drawn from economics, but increasingly they have come from psychology or one of the other social sciences. Hypotheses developed logically from such assumptions are tested against empirical facts as rigorously as possible. In short, facts are used to test theories, not to develop them. This type of research tends to be quantitative rather than qualitative, and to make use of large data sets and often complex multivariate statistical analysis. Many of these data are economic in orientation, though there is increasing use of more employment-focused data-sets, particularly a range of workplace surveys in a growing number of countries.

In some areas, the two traditions have developed in unison, with secondary analysis of large-scale survey data being deployed alongside complementary *case* studi*es*r (Edwards 2005). As Marginson (1998) points out, in Britain, large scale surveys have been widely used in the inductive mode *to raise questions*. Thus it would be incorrect to see the more abstract, newer style of research as simply crowding out the more traditional type. Nonetheless, there does seem to have been a distinct shift towards more deductive, less context-specific and more theory-oriented inquiry.

Forms of Validity

One of the key differences among the various research strategies is the attention given to the validation of constructs, models, and findings. Distinctions are often made among three major forms of validity: *construct, internal, and external* (Schwab 2005).

- *Construct* validity concerns the degree to which the variables considered accurately reflect the factors composing the underlying conceptual model *(*or hypothesis), for example, the degree to which IQ scores are good measures of cognitive ability.
- *Internal* validity relates to the causal model (the hypothesized relationship) itself and concerns the degree to which the empirical model estimated is consistent on its own terms, for example, whether the relationship between union presence and pay is solely due to the impact of the former on the latter and can therefore be estimated in (determined by) a single statistical equation.
- *External* validity concerns the degree to which the results can be generalized beyond the particular situation studied.

Attaining high levels of all three forms of validity in a single project is rare. Typically, they are traded off against each other, and against more practical considerations such as cost and time. The nature of the trade-off reflects the resources available to the researcher, the rationale for the study, and the research tradition within which the work is done.

IR research has traditionally been strong in terms of construct validity, but rather weak in terms of external validity. The advent of workplace IR surveys has introduced a stronger element of external validity into the field, albeit at the (for some unacceptable) expense of construct validity. A key problem for the field, however, lies in the area of internal validity, especially the ability of researchers to distinguish between cause and effect, for example, to determine whether inflation causes (not is just related to) unemployment or whether the positive association between HR practices and performance runs from the former to the latter.

Construct validity is particularly important for researchers in psychology, but less so for economists. It is more significant for policy-oriented than for theoretical researchers. Internal validity has been a particularly important concept for economists, and it is notable that much econometric research is concerned with ensuring that a statistical model has internal consistency. External validity is important for policy-based researchers, given that their work is intended to influence policies affecting general

populations. By contrast, much theoretical research explicitly focuses on extreme or atypical cases to test whether theoretical ideas are widely applicable. If they apply in extreme cases, presumably they will also apply in cases which are less extreme.

Research Methods: Qualitative and/or Quantitative
Most inductive research is qualitative and most deductive research is quantitative, but this isn't always the case. Sometimes quantitative researchers will analyze a set of available data with no hypotheses in mind, hoping for an interesting pattern will emerge ("*Magic computer on the wall, what's the meaning of this all?")*. Only then is an attempt made to explain this pattern logically. Though sometimes sneeringly called the "kitchen sink" approach, quantitative inductive research occasionally yields unexpected results, just as random testing of drugs sometimes provides unexpected cures. In contrast, qualitative methods may be employed in a deductive fashion when, having completed one case study, the researcher undertakes another with the intent of determining whether the same relationships hold in both cases. Often they do not, and this may lead the researcher to look for explanations of the difference. This is a common approach in comparative international studies.

Among the advantages of the quantitative approach is transparency: how the research is conducted is generally clear, others may replicate the study, and ~~often~~ *typically* the data on which the conclusions are based are made publicly available. By contrast, the reported results of qualitative research may be affected by the researcher's biases and expectations. Surveys are less likely to be seen as biased. Another advantage of the quantitative approach is its generalizability. Conclusions based on qualitative research in a small number of situations may have limited external validity. While qualitative research may suggest hypotheses, quantitative research assists in determining how widely these hold and the general strength of the relationship.

Compared with the quantitative approach, qualitative research typically considers a broader range of variables and issues, many of which are difficult to quantify. This helps the researcher understand the dynamics of a relationship - how it actually operates (what some call "getting into the little black box"). Although quantitative research may indicate that factors A and B are correlated, it may be hard to determine the direction of causation, unless the data are longitudinal, thereby yielding low internal validity. Qualitative research can often tell us something about causation. Further, it typically yields a richer picture of actual behaviour than quantitative research, and so may be more useful in policy making.

Disciplinary, Theoretical, and National Backgrounds
Industrial Relations, broadly defined, involves contributions from a variety of cognate disciplines and fields. Not only do researchers from different disciplinary backgrounds look at different questions, but they use different methods. *Their* methods influence the nature of ~~these~~ *their* findings.

Methods change over time. The big change in IR in recent years has been the increasing use of quantitative methods. Psychologists were among the first to quantify, then

economists, and, more recently, institutional IR researchers and labor historians. Early industrial sociologists specialized in ethnography and case studies; now they often use quantitative methods. Today, scholars in most areas studying work engage in calculations.

Even within quantitative research there are differences among fields. Economists generally favor regressions, while psychologists are more likely to use techniques that identify patterns, such as factor analysis. Psychologists emphasize the need to validate proxy measures that is, to ensure high construct validity; economists typically do not see this as a problem. Many younger IR scholars, who have been broadly trained in both economics and organizational behaviour, feel comfortable with both econometric and psychometric techniques. Consequently, linear regression analysis, which was for a while the almost standard technique used in economic research, is being increasingly supplemented by factor, path, cluster, maximum likelihood, and meta-analysis.

There are national differences. American sociologists make greater use of quantitative techniques than do those elsewhere, while many continental European sociologists shun them altogether, arguing that these techniques merely deal with superficial aspects of underlying problems. Indeed, some IR researchers reject quantitative analysis as suggesting spurious and misleading exactitude. In other words, they argue that statistical relations lack external validity and do not accurately reflect the real world's complexity. A related approach argues that valid research should involve "subjects" who participate in gathering and evaluating the data, such as in "action research".

This diversity complicates scholarly communication. The problem is no longer one of national languages, but of differences in frames of reference and theoretical paradigms. Though seemingly translated into English, much German sociology is virtually unintelligible to US readers, even to US sociologists. Furthermore, many of the technical terms that constitute the common discourse of postmodernists are meaningless to quantitative labor economists. Take for example Keenoy's (1999:1) view of "HRM as a Hologram" or his "attempt to analyse the problem of HRM ... in terms of the intrinsic conceptual-theoretical, empirical, representative, and institutional ambiguities which characterize the discourse and practices of HRM [which, he argues] stem from the epistomological limitations of modernistic methodologies." Few economists think in terms like this (and for some this language is almost undecipherable). The reverse is also true: most postmodernists are mathematically illiterate (and proud of it). Yet both deal with the world of work. They might learn from each other.

Values and Personal Interests

IR is a normative, value-oriented field. Many IR scholars identify with unions. Consequently, until recently, unions received more attention than management. By contrast, those who receive part of their income as management consultants are likely to deal with managerial problems and from a managerial perspective. And even those who try to be neutral are often charged with being pro-union (Brown, 1998).

One of the personal advantages of more traditional forms of face-to-face research, such as ethnography and interviewing, was that it provided the researcher with a sense of psychological involvement that may be largely lacking in the computerized study of data sets. The passion and excitement that once characterized IR may be lost, and those who crave personal involvement *or desire to change the world* may pick other fields of study.

Journal Preferences

In academia, it is increasingly the case, particularly for younger researchers, that they publish or perish. The preferences of journal editors carry great weight. Recent changes in British research funding arrangements, for instance, have increased the kudos for publishing in a small set of "front-rank" journals. This editorial system generally encourages safe, narrow articles that can pass the scrutiny of often-hostile reviewers. Most journals today seem to prefer highly empirical studies, heavily buttressed with statistics, to think-pieces with unorthodox new ideas. Particularly in the United States, few articles without numerical data get published. Editors also want to publish "new" research; mere replication of previous studies rarely gets into print. Consequently, favored articles are based on small "advances" on previous studies which are heavily supported by statistics. The net effect is to discourage inductive research. On the other hand, in the US, the *Journal of Labor Research* and the *Labor Studies Journal* both publish significant numbers of qualitative articles, while the same is true of the *Industrial Relations Journal* in the UK and the *Journal of Industrial Relations* in Australia.

Technology

Computers have revolutionized the social sciences. They have made it possible to store and analyze large amounts of data cheaply, as long as these data can be reduced to symbolic (largely numerical) form. In recent years, there has been not only a phenomenal growth in the capacity of computer hardware, but also an increase in supporting software - particularly in statistical programs that allow a wider range of data to be analyzed. Calculations that previously might have taken hundreds of hours can now be done almost instantaneously. Given the availability of computers and the growing number of databases, quantitative research can be converted into article form without researchers ever leaving their offices. On the other hand, it discourages qualitative research, and it may lead to attempts to categorize squishy data into hard numbers, for example, by coding interviews into rigid categories. Despite its presumed objectivity, the coding process is very open to being influenced by ~~the~~ researche~~rs'~~ biases.

Availability of Data

Data availability has a strong impact on the nature of IR research and on the methods used. National workplace surveys in Australia and the United Kingdom, as well as a series of somewhat similar but considerably less comprehensive US studies, have created a bonanza for scholars. These data have facilitated a growing interest in both workplace studies and the use of quantitative techniques which permit hypothesis testing. The ready availability of statistics showing votes in National Labor Relations Board (NLRB) elections contributed to a plethora of US research on voting behavior. Later, the decision to stop collecting data on all but large US strikes has inhibited studies of strike incidence. Similarly, the availability of surveys of the population generally (such as the Panel Study

of Income Dynamics in the United States and the Socio Economic Panel in Germany) has encouraged studies that can utilize these data and has discouraged other kinds of research. In other words, the availability of potential answers has encouraged questions.

A lamentable tendency among some researchers when good quantitative data are not available is to test a hypothesis by selecting the best alternative (technically "proxy") around. Sometimes, this best alternative is bad, in other words, construct validity is low. This is like the drunk looking for lost keys under the street lamp because this is where the light is.

An unfortunate consequence of the greater availability of survey data (as well as of computers to analyze them) is that IR researchers are now less likely to go out into the field to talk to real workers and real managers. One danger, particularly for a problem-oriented field, is that important insights are lost and overly simplistic conclusions accepted. A second danger is that the IR literature will lose the colourful descriptions that once were common.

Level of Analysis
Studies differ in the organizational levels they examine: the individual worker; the workplace; the enterprise, firm, industry, or country; or the entire world? Traditionally, the primary focus of IR has been on unions, management, and especially their collective bargaining relationships. A second stream of research dealt with *the relationships among* unions and companies, as aggregates, and the state.

The different disciplines related to IR focus on different levels: economics and psychology on individuals, sociology on groups and larger aggregations, and political science on countries. It should not be surprising, therefore, that the recent spurt in interest in comparative international relations has contributed to the fact that some of the most innovative IR work is being done by scholars who have backgrounds in political science (for example, Thelan 2004).

Different techniques are more appropriate for research at each level. Further, different insights emerge depending on the level studied. Thus, if one is concerned with strikes at the individual level, one looks at phenomena such as workers' needs, attitudes, and frustrations. At the workplace level, the behaviour of specific members of management, the social structure of the group, and perhaps the nature of technology may be most germane. To study these issues, ethnography may be appropriate. At the plant level, fine-grained ethnographic studies may be too difficult; hence, plant-level research may involve case studies. At higher levels, quantitative analyses of economic data (profits, changes in the cost of living, and the like) may be more relevant. And still other variables must be considered in comparing strike rates among countries, such as their histories, economies, and governmental institutions.

Interdisciplinary Research
Industrial relations claims to be interdisciplinary. There are obvious advantages to utilizing several disciplines, in that each discipline can provide its own insights and so

reduce the likelihood of narrow, single-dimensional perspectives on complex, multidimensional problems. Unfortunately, these advantages are rarely garnered in practice. Indeed, there are many examples of failure, despite highly laudable attempts to break down disciplinary barriers.

There are two main types of interdisciplinary research. The first involves a single researcher (or a research team from a common discipline) drawing on a variety of disciplines. The second involves several researchers, each from a different discipline. To date, neither type has been common in IR research, though this may be changing, especially as the training of IR students gets broader. Generally, the first type has been more fruitful. Researchers from different backgrounds may have trouble communicating, and could therefore produce what some have called "the cross-sterilization of the social sciences."

Among the few examples of research that extends beyond discipline-specific boundaries is Getman, Goldberg, and Herman (1976). In this study, two lawyers and a psychologist employed an attitude survey to test legal propositions regarding the impact of management behavior on worker's voting patterns. Similarly, some economists, such as Freeman and Medoff (1984) and Farber and Krueger (1993), have introduced attitudinal variables into their equations.

In some cases, IR scholars have borrowed from other fields. For example, the concept of "union commitment," is derived from an analogous concept, "organizational commitment," widely employed in organizational behavior. Somewhat similarly, Walton and McKersie (1965) drew on game theory and psychology, but applied its conceptual apparatus directly to collective bargaining. *Kelly (xxxx) builds his analysis of union behaviour partly on sociological theories of collective action.* On the whole, however, IR researchers have been rather parochial. Some are uncomfortable with any conceptualization that treats industrial relations as only one form of a broader socio-economic category. An example is the reluctance of researchers to follow up on Walton and McKersie's somewhat theoretical analysis of bargaining behavior, thus permitting the new academic field of negotiations and conflict resolution to develop with little IR participation (and few jobs for IR academicians). Similarly, IR has made little use so far of the highly relevant concepts of transaction cost economics or sociological theories of collective action.

A common problem is that researchers from different disciplines may deal with the same phenomena, but fail to communicate with each other because they use different languages and read different journals. Psychologists and economists, for example, study labour turnover, sometimes using equivalent data, yet they rarely cite each other. "Organizational justice," especially "procedural justice," is one of the most popular subjects in micro-organizational behavior (Greenberg 1990). Much of the research in that field has involved IR issues, such as compensation, promotion, and discipline. Yet, despite its obvious relevance, little research in the procedural justice tradition has appeared in IR publications or has been cited by those who call their field IR.

One of the major factors inhibiting interdisciplinary research is that it takes research from the comfort of the shared assumptions and ways of seeing and doing that exists within disciplinary boundaries. In particular, the criteria used to judge a "good" piece of research differ between disciplines, and few studies satisfy all of them. For example, Getman, Goldberg, and Herman's highly policy-relevant study was criticized by economists on methodological grounds (Dickens 1983), and by researchers outside of economics for lacking in realism (Siegel, 1998). Psychologists would no doubt regard the attitudinal variables in Freeman and Medoff's and Farber and Krueger's work as rather primitive.

The advent of workplace IR surveys was expected to encourage interdisciplinary analysis. Representative sample surveys, it was hoped, would interact complementarily with non-generalizable case studies. Yet the British experience is that little inter-disciplinarity has occurred. Much of the analysis of the early survey data has been conducted by economists using a narrow range of quantitative methods, and very little has been undertaken by IR specialists themselves (Millward 1993). Indeed, some of the latter have been critical of survey data, arguing that it fails to capture the true complexity and dynamic character of British IR (McCarthy 1994)**;** in other words, that it lacks construct validity.

But there is some room for hope. There is, for example, a largely new approach to compensation and careers that links psychology, sociology, and economics, making use of such concepts as procedural justice; agency, tournament, expectancy, and equity theories; organizational ecology; and commitment. Few of the scholars contributing to this development identify their field as IR, however.

Multi-method Research

A growing number of IR studies make use of more than one method in a research project. This has numerous advantages. First, through "triangulation," it helps validate findings. If two methods lead to the same conclusion, the findings are more robust than if one method is used alone. If they disagree, more research may be necessary. The findings of the International Motor Vehicle Project were based largely on managers' responses to detailed questionnaires (McDuffie and Pil 1995). But to ensure that the questions were understood and answered accurately, the researchers personally visited most of the plants around the world. Second, if several methods are employed, each may provide different nuances or insights. Consequently, the ultimate findings are richer. And if the results differ, totally new questions may be raised. Third, one method can be used to improve another. Focus groups, for example, can be used to help design survey questions. Case studies can help improve causal models used in quantitative studies. Experimental methods can be used to evaluate different econometric models.

Fourth, one method can lead to another when the techniques are used in sequence, one after another, rather than simultaneously. Thus, one study may be "nested" within another. Case studies may be used at first to suggest relationships, and, afterward, surveys or other quantitative measures can be employed to determine ~~how extensive these relationships are - that is~~, the extent to which they can be "generalized." Alternatively, if

a survey finds that X is correlated with Y, case studies can be used to get into "the black box" and analyze the dynamics of this relationship. Case studies may be run on typical examples, as revealed by surveys or on deviant ones (Lipset, Trow, and Coleman 1956). Another approach is to administer surveys of workplace practices to key union and management leaders in a large sample of organizations and then survey the attitudes towards these policies of all the workers in a small sample of firms taken from the larger sample. In this way, the larger study can determine the extent of a practice, while the smaller ones look at its impacts.

Data Sources

IR scholars gather their data from a variety of sources. Those who are interested in bargaining behaviour may set up laboratory experiments or perhaps observe real union-management bargaining sessions (in the ethnographic tradition). Those whose research focuses on workers' attitudes favor attitude surveys. Institutional researchers examining union-management behavior traditionally engage in case studies (but more recently may also use workplace surveys). In doing research of this type, researchers typically gather their own data. Economists, by contrast, typically base their research on data collected by others, usually a government agency. However, a few economists have conducted carefully controlled field experiments designed to measure the impact of various forms of training and income supplements on the employment history of disadvantaged workers. And there is a growing field of experimental economics that utilizes laboratory experiments to study economic behaviour, such as risk taking.

A hallmark of traidional IR research was that scholars tended to collect their own data.[3] A major advantage of gathering one's own data is that the nature of the data collected and the data-collecting technique can be tailored to fit the questions being asked (in other words, there may be high construct and internal validity). On the other hand, it is generally cheaper to use data collected by others. Further, there is the advantage of transparency: if generally available data are used, other researchers can repeat and check on the original researcher's findings. Researchers who collect their own data may bias the questions they ask so as to get the answers they want.: what ethnographers and case study collectors "see" may be heavily influenced by their own expectations and values. This is a serious limitation.

Some Evidence of Change

Evidence as to how the nature of research is changing is provided by two studies, both of which looked at articles appearing in major academic IR journals. The first (Whitfield and Strauss 2000) examined articles appearing at 15 year intervals (1952, 1967, 1982, and 1997) in two British journals, the *British Journal of Industrial Relations* (*BJIR*) and the *Industrial Relations Journal* (*IRJ*), two American ones, the *Industrial and Labor Relations Review* (*ILRR*) and *Industrial Relations* (*IR*) as well as one each from Canada, *Relations Industrielles* (*RI*) and Australia, the *Journal of Industrial Relations* (*JIR*).

[3] Keith: thi sentence was in an earlier draft, then eliminated. Whybwas it eliminated? Do we say this elsewhere?

The second study, by Frege (2005) *looked at* the same British and US journals, but instead of Canadian and Australian journals, to provide an illustration of continental European developments, she looked at *Industrielle Beziehungen (IB).* Her study compared the entire set of articles appearing in the 1970s with those appearing in the 1990s. Both studies coded the articles under a number of headings, most of which are listed in the attached tables. Tables One and Two are based on the Whitfield and Strauss paper (but only the four oldest of these journals (*BJIR, ILRR, IR, and JIR).* Table Three is based on Frege's paper.

The findings of the two studies are broadly comparable. Some of the differences can be ascribed to differences in the years covered, though we suspect that important parts are due to differences in coding rules. Both studies found a marked trend away from inductive to deductive research, with the US journals moving further than those based in Australia, Britain and Germany. Whitfield and Strauss found this trend to be somewhat stronger than did Frege; the proportion of articles published in the former's four longest running journals classified as deductive increased from 17 per cent in 1967 to 57 per cent in 1997. According to both studies, articles which are purely descriptive or purely theoretical (without data) have become increasingly rare in Anglo–Saxon journals but, according to Frege, still common in *IB*.

Looking back to 1967, Whitfield and Strauss found a trend away from policy oriented research and toward discipline-building in both countries, the proportion of articles of the former type in the four main journals increasing from 34 per cent in 1967 to 65 per cent in 1997. Further, the proportion of papers using data which contained multivariate analysis grew quite rapidly so that, by 1997 they constituted the vast majority of papers published in US journals. Taking the four longest-running journals as a whole, the proportion of papers involving data that utilized multivariate analysis increased from 6 per cent to 47 per cent. This shift was more pronounced in the US-based journals, but less so in *JIR*.

The overall proportion of articles on what Whitfield and Strauss call "union-management relations" and Frege calls "industrial relations topics" has remained roughly constant over the years. Whitfield and Strauss noted, however, a marked contrast between journals in this respect. *ILRR* witnessed a substantial decline in the proportion of articles on union-management relations from 58 per cent in 1967 to 20 per cent in 1997, whereas the other three journals all saw a corresponding increase. In short, *IR* resembled *BJIR* and *JIR* rather than *ILRR* in this area.

Frege classifies articles by "analytic level", with one category being "micro". US journals had more micro articles during both of her chosen periods, and the proportion of these increased from the 1970s to the 1990s. Meanwhile, the proportion in Britain declined. The closest Whitfield and Strauss equivalent to Frege's "micro" is "individual/household". The proportion of papers in this category has gone up in both countries; however, only in the *ILRR* did they constitute a majority of data-based articles.

~~The~~ Whitfield and Strauss ~~study~~ discovered that only a small proportion (16 per cent) of studies used more than method in 1997, and even fewer did in earlier years. They also found that, in 1997, data for the overwhelming majority of articles appearing in the two US journals was collected by "others". Outside the US, it was more typically collected by the authors themselves.

These two studies largely support our book's original observations. We see no reason to change them. Specifically, they indicate that our field is extremely heterogeneous, which is possibly both its main strength and its main weakness. There are substantial cross-national differences in the way in which research is undertaken. The US has clearly seen the greatest move towards the more deductive, discipline-oriented approach, though *ILRR* seems to have reflected this more than *IR*. Of the non-US journals, both the Australian *JIR* and the German *IB* have remained more committed to publishing papers in the older IR tradition than *is* the British *BJIR*.

Yet taking the field as a whole, there have been moves over time away from inductive, policy-oriented, macro-focused research and towards that which is deductive, discipline-oriented, and micro-focused in all countries studied. The use of multi-method approaches is still the exception rather than the rule, but does show signs of becoming more prominent. Secondary analysis of data-sets is becoming more common, reflecting the many changes in the nature of the subject and the broader environment.

There has therefore clearly been considerable change in the nature of IR research in recent years, but whether this is a good or bad thing is debatable. Clearly, the field has adapted to the availability of powerful data-sets, and has made considerable use of the range of new analytical techniques that have emerged in the economic and social sciences. But, to some extent, this has been at the cost of losing its close connections both with the people and institutions studied and with the policy implications of the research findings. And there is a prima facie case that it has resulted in a failure to develop a broader, multi-method, approach to empirical research that might have grown out of the field's more traditional approach (but which that approach did not itself encompass). Whatever the net effect of these changes, it is clear that IR scholars have still not settled on a way of undertaking research that is both distinctive and widely-accepted. The search of the Holy Grail goes on.

The Future

In 1998, we argued that the future advance of IR as a field of study required that more attention should be paid to four main areas: 1) concepts; 2) scope; 3) title; 4) research design.

Conceptual Developments

In our view, conceptual development in the IR area has stalled. If anything, scholars from other fields have increasingly studied topics which traditionally were considered to be in IR's balliwick, but now using these other fields' analytic tools. Further, as Jarlet al. (2001) document,11/9/2006 a high percentage of the articles appearing in the main US IR

journals are written by scholars whose identification is not with IR (at least they don't belong to the field's primary professional organization, then called the Industrial Relations Research Association). This causes the authors "to question whether IR can sustain a unique scholarly community". Moreover, they wonder whether "IR journals will continue to provide a venue for sustaining a coherent, cumulative literature that will distinguish the field from other areas" (p. 343). As Kaufman (2004) suggests, the IR field in the UK may be more cohesive than that in the US, and so less likely to change.

A key contribution to the discussion of conceptual tools is Paul Edwards' recent (2005) paper, which built on our original speculations. The key themes of this paper are that one of IR's main strengths is its sensitivity to context. In short, this means that how Factor A influences Factor B depends on other Factors, C, D, and E (psychologists call them moderators). Greater context-sensitivity, Edwards argues, will facilitate further methodological progress, build stronger links with the other social sciences, and possibly result in greater policy relevance.

Context-specificity, however, comes at quite a cost. It inevitably fragments the subject-area. Studies undertaken in given settings help us understand the complexity of relationships within that particular setting, but may provide few insights as to what is happening elsewhere. Often single-situation research is justified as contributing to the development of middle-range theory, but typically the theoretical contribution of such highly-focused studies is minimal. IR still lacks an overall theory. This may be strength, but on balance it may be even more a weakness, Consequently, IR people typically only have fragments of theory with which to work, and they lack the more all-embracing theoretical frameworks that those in related fields and disciplines have at their disposal.[4]

Context-specificity also gives an air to the field that suggests that it is a second-order subject-area that uncovers uncomfortable facts that others explain and develop. For example, many of the key features of the so-called new institutional labor economics are based around stylized/simplified facts that have been developed from the work of IR researchers, such as those related to the internal labor market concept. While some IR scholars have attempted to develop alternative, more realistic, theoretical approaches around such context-specific research (most notably, for example, Michael Piore), these efforts have been overwhelmed by the work of those attempting to integrate their existing and less realistic theoretical frameworks with what is typically a narrow conception of the facts outlined by the context-focused researchers. The advent of Personnel Economics is a prime example of this in action (Lazear, 2000).

ƒ IR's scope

In 1998, we suggested that IR should return to its earlier emphasis on policy. To our mind, there has been little positive change in this respect, if anything the reverse. In terms of subject-matter, we have definitely seen a major expansion in the range of subjects examined in recent years, and IR research now covers far more than just union-management relations. However, much of this new research is done at arm's length from the concerns of key policy-formers. *Indeed the current political situation, at least in the*

[4] Keith sentence moved.\

US, makes it unlikely that academic policy recommendations would be reflected in practice. This reduces scholars' incentives to make them. In short, it would seem that IR research has broadened its scope, while not noticeably increasing its involvement with the real world that it seeks to understand.

The end of IR as a distinct field?
The trend toward abandoning the term" Industrial Relations" has continued, especially in the US. Where it is not being displaced by Human Resource Management, it is being replaced by Work Studies or, more commonly, Employment Relations. Among the organizations changing their name are the former Industrial Relations Research Association in the US (now the Labor and Employment Relations Association) and the former British Workplace Industrial Relations Surveys (now Workplace Employment Relations Surveys). How long before the other leading institutions in the field follow suit? The new names imply that IR covers more than labor-relations. But does it all imply that IR is no longer a distinct field?

Research Design
In 1998, we argued that IR should place greater emphasis on research design; for example, multi-method studies which permit triangulation should be encouraged. Some progress has definitely been made in this area. Younger scholars, in particular, are thinking more broadly about research design, and are crossing the qualitative/quantitative divide more often. This may reflect broader and more systematic research training, or merely a change in the background of those researching in the subject-area, away from those who enter from the practitioner domain. Purely descriptive work is being replaced by that which is avowedly analytical. In our view, this is the area in which greatest and positive change is occurring and which offers the most scope for the future advancement of a field that has made and continues to make major and distinctive contributions to our understanding of the world of work.

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TABLE ONE
Nature of Papers Published in Main IR Journals

	1967					*1982*					*1997*				
	BJIR	*ILRR*	*IR*	*JIR*	*Total*	*BJIR*	*ILRR*	*IR*	*JIR*	*Total*	*BJIR*	*ILRR*	*IR*	*JIR*	*Total*
Articles coded	22	19	19	16	76	24	27	19	23	93	21	30	22	17	90
Basic Approach															
Deductive	3	4	4	2	13	8	21	16	4	41	10	26	15	0	51
	(14%)	(21%)	(21%)	(13%)	(17%)	(33%)	(78%)	(84%)	(17%)	(44.0%)	(48%)	(87%)	(68%)	(0%)	(57%)
Inductive	18	14	7	10	49	13	6	2	19	50	11	4	7	17	39
	(82%)	(82%)	(37%)	(62%)	(65%)	(54%)	(22%)	(11%)	(83%)	(54%)	(52%)	(13%)	(32%)	(100%)	(43%)
Unclassified	1	1	8	4	14	3	0	10		4	0	0	0	0	0
	(4%)	(5%)	(42%)	(25%)	(18%)	(13%)	(0%)	(5%)	(0%)	(4%)	(0%)	(0%)	(0%)	(0%)	(0%)
Primary Orientation															
Discipline orientation	10	9	5	2	26	15	18	16	9	58	9	28	17	4	58
	(46%)	(47%)	(26%)	(13%)	(34%)	(63%)	(67%)	(84%)	(39%)	(62%)	(43%)	(93%)	(77%)	(23%)	(65%)
Policy orientation	11	10	6	9	36	5	7	3	13	28	9	1	4	13	27
	(50%)	(53%)	(32%)	(56%)	(47%)	(21%)	(26%)	(16%)	(57%)	(30%)	(43%)	(3%)	(18%)	(77%)	(30%)
Unclassified	1	0	8	5	14	4	2	0	1	7	3	1	1	0	5
	(44%)	(0%)	(42%)	(31%)	(18%)	(16%)	(7%)	(0%)	(4%)	(8%)	(14%)	(3%)	(5%)	(0%)	(5%)
Data															
Yes	12	18	11	16	57	21	27	17	21	86	20	30	20	17	87
	(55%)	(95%)	(58%)	(100%)	(75%)	(87%)	(100%)	(90%)	(91%)	(92%)	(95%)	(100%)	(91%)	(100%)	(97%)
No	10	1	8	0	19	3	0	2	2	7	1	0	2	0	3
	(45%)	(5%)	(42%)	(0%)	(25%)	(13%)	(0%)	(10%)	(9%)	(8%)	(5%)	(0%)	(9%)	(0%)	(3%)
Subject Area															
Union-management relations	12	11	3	6	32	15	9	7	8	39	16	6	8	11	41
	(55%)	(58%)	(16%)	(38%)	(42%)	(63%)	(33%)	(37%)	(35%)	(42%)	(76%)	(20%)	(36%)	(65%)	(46%)

Source: Whitfield and Strauss (2000).

TABLE TWO
Type of Data and Methods of Analysis Used

	1967					*1982*					*1997*				
	BJIR	*ILRR*	*IR*	*JIR*	*Total*	*BJIR*	*ILRR*	*IR*	*JIR*	*Total*	*BJIR*	*ILRR*	*IR*	*JIR*	*Total*
Articles with data	12	18	11	16	57	21	27	17	21	86	20	30	20	17	87
Type of data															
Quantitative	6	10	8	2	26	16	23	14	12	68	13	29	17	3	62
	(50%)	(56%)	(73%)	(13%)	(46%)	(76%)	(85%)	(82%)	(57%)	(79%)	(65%)	(97%)	(57%)	(18%)	(71%)
Non-quantitative	6	10	8	2	26	5	4	3	9	32	7	1	3	14	38
	(50%)	(56%)	(73%)	(13%)	(46%)	(24%)	(15%)	(18%)	(43%)	(37%)	(35%)	(3%)	(15%)	(82%)	(35%)
Multivariate analysis	0	2	1	1	4	4	20	13	4	41	6	25	17	2	41
	(0%)	(11%)	(9%)	(6%)	(7%)	(19%)	(74%)	(76%)	(19%)	(48%)	(30%)	(83%)	(85%)	(12%)	(47%)
Data collected by:															
Author	3	3	3	11	20	10	6	7	7	41	14	6	6	7	49
	(25%)	(17%)	(27%)	(69%)	(35%)	(48%)	(22%)	(41%)	(33%)	(48%)	(70%)	(20%)	(30%)	(41%)	(56%)
Other	2	8	6	5	21	7	16	10	8	38	6	24	15	1	39
	(17%)	(44%)	(55%)	(31%)	(37%)	(33%)	(59%)	(59%)	(38%)	(44%)	(30%)	(80%)	(75%)	(6%)	(45%)
Case study	2	4	3	5	14	7	5	4	3	24	6	1	2	6	20
	(17%)	(22%)	(27%)	(31%)	(25%)	(33%)	(19%)	(24%)	(14%)	(28%)	(30%)	(3%)	(10%)	(35%)	(23%)
Multi-method	0	2	3	0	5	3	2	4	4	14	5	2	4	3	18
	(0%)	(11%)	(27%)	(0%)	(9%)	(14%)	(7%)	(24%)	(19%)	(16%)	(25%)	(7%)	(20%)	(18%)	(20%)

Source: Whitfield and Strauss (2000)

TABLE THREE
Industrial Relations Research Methods

	1970s					*1990s*					
	BJIR	*IRJ*	*ILRR*	*IR*	*Total*	*BJIR*	*IRJ*	*ILRR*	*IR*	*IB*	*Total*
Broad research topics											
IR topics	42	42	57	43	184	123	143	77	71	84	498
	(43%)	(62%)	(52%)	(36%)	(47%)	(63%)	(73%)	(32%)	(36%)	(92%)	(54%)
HR topics	27	16	19	42	104	44	36	62	54	1	197
	(29%)	(24%)	(17%)	(36%)	(27%)	(23%)	(19%)	(26%)	(28%)	(1%)	(21%)
Labour market	25	10	33	34	102	28	16	104	70	6	224
topics	(27%)	(15%)	(30%)	(29%)	(26%)	(14%)	(8%)	(43%)	(36%)	(6%)	(24%)
Total	94	68	109	119	390	195	195	243	195	91	919
	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)
Nature of Article											
Empirical	20	18	20	25	83	56	86	10	17	12	181
descriptive	(21%)	(26%)	(18%)	(21 %)	(21%)	(29%)	(44%)	(4%)	(9%)	(13%)	(20%)
Empirical inductive	30	12	33	41	116	56	37	146	94	20	353
	(32%)	(17%)	(30%)	(35%)	(30%)	(29%)	(19%)	(60%)	(48%)	(22%)	(38%)
Empirical deductive	9	11	29	15	64	38	21	71	59	5	194
	(9%)	(16%)	(27%)	(13%)	(16%)	(19%)	(11%)	(29%)	(30%)	(6%)	(21%)
Thinkpiece/ essay	20	19	18	25	82	40	48	12	17	39	156
	(21%)	(28%)	(17%)	(21%)	(21%)	(21%)	(25%)	(5%)	(9%)	(43%)	(17%)
Theory	15	8	9	13	45	5	3	4	8	15	35
	(16%)	(12%)	(8%)	(11%)	(12%)	(3%)	(2%)	(2 %)	(4%)	(17%)	(4 %)
Total	94	68	119	119	390	195	195	243	195	91	919
	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)
Methodology											
Qualitative	19	20	16	19	74	58	96	11	20	24	209
	(32%)	(49%)	(20%)	(24%)	(28%)	(39%)	(67%)	(5%)	(12%)	(59%)	(28.6%)

Quantitative	40	21	66	62	189	92	48	216	150	17	523
	(68%)	(51%)	(80%)	(76%)	(72%)	(61%)	(33%)	(95%)	(88%)	(41%)	(71.4%)
Total	59	41	82	81	263	150	144	227	170	41	732
	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)
Dataset size											
Small	36	36	50	49	171	89	122	51	64	30	356
	(61%)	(88%)	(61%)	(60%)	(65%)	(59%)	(85%)	(22%)	(38%)	(81%)	(49%)
Large	23	5	32	32	92	61	22	176	106	7	372
	(39%)	(12%)	(39%)	(40%)	(35%)	(41%)	(15%)	(78%)	(62%)	(19%)	(51%)
Total	59	41	82	81	263	150	144	227	170	37	728
	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)
Analytical level											
Macro	22	9	17	18	66	27	49	20	24	6	126
	(37%)	(22%)	(21%)	(22%)	(25%)	(18%)	(34%)	(9%)	(14%)	(13%)	(17%)
Sector	11	10	21	24	66	34	31	26	30	6	127
	(19%)	(24%)	(26%)	(30%)	(25%)	(23%)	(22%)	(11%)	(18%)	(13%)	(17%)
Firm	14	16	11	17	58	73	51	65	60	28	277
	(24%)	(39%)	(13%)	(21%)	(22%)	(48 %)	(35%)	(29%)	(35%)	(62%)	(38%)
Micro	12	6	33	22	73	16	13	116	56	5	206
	(20%)	(15%)	(40%)	(27%)	(28%)	(11%)	(9%)	(51%)	(33%)	(11%)	(28%)
Total	59	41	82	81	263	150	144	227	170	45	736
	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)

Source: Frege (2005).