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**SO YOU CALL *THAT* RESEARCH? MENDING METHODOLOGICAL BIASES IN
STRATEGY AND ORGANIZATION DEPARTMENTS OF TOP BUSINESS SCHOOLS***

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We believe that all strategy and organization (SO) scholars should be able to decide for themselves whether to specialize in certain parts of the knowledge cycle or adopt a broader, multi-method view on the scientific process. In a situation of “methodological pluralism”, individuals might choose to contribute to the construction of new administrative theories by means of qualitative works like case studies, ethnographies, biographies, or grounded theory studies (e.g., see Denzin and Lincoln, 2000). Others could then specialize in testing these theories by means of experiments, surveys, or longitudinal econometric studies (e.g., see Lewis-Beck, 1987-2004). Again others could combine both approaches in Herculean attempts to conduct high-impact, integrative research with the potential to change the way we understand the field as a whole.

The problem we identify and address here is that we live in an era of “methodological orthodoxy” in which systematic biases exist that urge scholars to specialize in specific parts of the knowledge cycle. These must be mended at the institutional level or else the SO field will regress towards poorer spending of resources, less scientific advancement, and weaker teaching. The results of a survey study reveal some of these biases, as they exist in top business schools. On the basis of this work, we recommend SO departments and dominant institutions like the Association to Advance Collegiate Schools of Business (AACSB), the Academy of Management (AoM), and National Science Foundations (NSFs) worldwide to start paying attention to often tacit and implicit restrictions on individual choice that result in methodological biases at the collective level.

The Value of a Multi-Method Social Science

Methodological orthodoxy in many areas of the social sciences holds that there is something like a natural stratification amongst research methods. For example, the early Donald Campbell did very little to conceal his initial aversion against small-*N* research:

“[S]uch studies have such a total absence of control as to be of almost no scientific value. (...) Any appearance of absolute knowledge, or intrinsic knowledge about singular isolated objects, is found to be illusory upon analysis. (...) It seems well-nigh unethical at the present time to allow, as theses or dissertations in education, case studies of this nature” (Campbell and Stanley, 1966: 6-7).

Yet, there are some rather good reasons to assume that in-depth, qualitative research has its merits, and that these cannot be reproduced by, and therefore complement, large-*N* research (Moldoveanu and Baum, 2002). Touched by this insight, the later Donald Campbell officially “recanted” his position in an oft-cited article, writing that his work had undergone “an extreme oscillation away from my earlier dogmatic disparagement of case studies” (Campbell, 1975: 179). At the core of his conversion lies the insight that even single-case studies are never $N = 1$ snapshots of an unchanging reality. Case studies are genuine empirical endeavors in that they always explore covariation between purported causes and hypothesized effects. Sometimes by dividing a sampled case up in subunits, at other times by comparing formal units – the person, group, or organization of which the researcher has in-depth knowledge – to informal units – all other units that are brought into the analysis in a more peripheral way (Gerring, 2004). At minimum, the study of embedded social

units will lead to the type of context-dependent knowledge derived from “common-sense naturalistic observation” (Campbell, 1975: 191) that is indispensable as a first small step towards grand generalization. But the analysis of within- or across-case covariance also allows one to test the causal implications of a theory by having it generate a pattern of “dozens” of predictions on a given social phenomenon, and refuting the theory unless most of these predictions are confirmed. The researcher has then “tested the theory with degrees of freedom coming from the multiple implications of any one theory” (cf. Campbell, 1975: 179, 181-182).

Some fields in the social sciences approach the ideal of harmonious co-existence and fruitful cross-fertilization between small-*N* and large-*N* research. In the field of sociology, for example, a healthy tension has always existed between both approaches, with on the one end of the spectrum the Chicago school of sociology with its firm commitment to fieldwork and other forms of qualitative inquiry. The philosophy behind this qualitative, interpretative type of research is perhaps voiced most strongly by Robert Park, once an influential chair of the University of Chicago sociology department, who used to tell his students: “go and sit in the lounges of luxury hotels and on the doorsteps of the flophouses; sit on the Gold Coast settees and on the slum shakedowns; sit in the Orchestra Hall and in the Star and Garter Burlesque. In short, go get the seat of your pants dirty in real research” (quoted in the *Oxford Dictionary of Sociology*, 2nd ed., p. 67). At the other end of the spectrum we find the quantitative sociological tradition, stressing the consistent and organized use of statistical methods, which more or less began with Durkheim’s *Suicide*. The tension between both approaches has over the years resulted in an impressive research program based on methodological pluralism, which serves as a telling illustration of the true value of a multi-method science.

In other fields, an early decision in the struggle between qualitative and quantitative research appears to have stopped the intellectual fermentation process in a premature stage. In a field like political science, for example, the “battle of the methods” has in a very early phase been decided in favor of large numbers quantitative research. In the 1995-2000 period, for example, no more than 2% of all original submissions received by the *American Political Science Review* were based on small-*N* research (Sigelman, 2004). In line with the aforementioned instrumental view on such small-*N* research, which states that qualitative inquiry feeds theory building through the development of testable hypotheses (Campbell, 1975; Eisenhardt, 1989), some commentators have argued that this lack of interest in qualitative studies has led to a striking and disappointing lack of genuine theory in the field of political science (Eckstein, 1975; Flyvbjerg, 2004). In particular, an unholy coalition seems to have emerged between a dominant theory (rational choice theory; Ostrom, 1998) and a dominant research methodology (large-*N* research; Sigelman, 2004). We use this example as an illustration of how methodological orthodoxy can over time lead to the uneven development or even deterioration of a field of social science.

Biases in Methodological Orientations

With these examples in mind, we decided to take a closer look at the organization of research in the SO field. The question we wished to address is whether the organization of the SO field is more like the field of sociology (in which a balance has historically existed between qualitative and quantitative research) or more like the field of political science (in which this balance has given way to a more specialized

research tradition). Before we proceed, however, it is important to explain what we mean by “balance.” We obviously do not expect to find a neat 50/50 split in terms of quantitative and qualitative orientations across the researchers comprising the SO field, and neither do we think that such strict equality should be an important point of aspiration. Rather what is needed to achieve balance is a viable long-term survival prospect for both traditions. In the words of political scientist John Gerring:

“If both case study research and cross-unit methods have much to recommend them (...), then both ought to be pursued—perhaps not in equal measure but at least with equal diligence and respect. There is no virtue, and potentially great harm, in pursuing one approach to the exclusion of the other or in ghettoizing the practitioners of the minority approach” (2004: 353).

To assess whether some balance exists in the SO field, we sent an 18-item survey to the chairpersons of SO departments of 136 top business schools worldwide. If the chair was unavailable, a second knowledgeable person was contacted (normally a senior professor). Sample items are “Over the past three years, how many PhD students who graduated in your department wrote a thesis based on *quantitative* work?” (item 4) and “What percentage of published empirical studies by department members is predominantly based on *qualitative* work?” (item 14). Answers were recorded through brief telephone interviews, using a standardized protocol.¹ Schools were selected if they were included in the most recent MBA rankings of *Financial Times*, *Business Week*, *The Economist*, *The Wall Street Journal*, or *Forbes*. Three schools suggested that they should not be in the sample because either their SO group was too small or they were not involved in research. After follow-up rounds following standard procedures (Dillman, 2000), we were able to obtain 71 responses,

corresponding to an effective response rate of 53.4%. Additional information was obtained from schools' websites regarding the size of the department, the percentage of male and female faculty members, and the nature of the departmental hierarchy (numbers of people in various junior and senior positions), but none of these variables turned out to be significantly related to departmental research preferences. A synopsis of the results of the survey can be found in Table 1.

Insert Table 1 about here

Three key observations pertaining to methodological biases can be derived from our research. First, many SO departments of the world's top business schools are strongly specialized towards either quantitative or qualitative methods (see Table 1 for exact numbers). For example, most departments publish a majority of their empirical studies using a single research approach. Similarly, in most departments individuals who have received tenure or promotion specialize in a single research method (be it qualitative or quantitative). For some other measures, like research budgets and number of completed theses, the imbalance is somewhat less striking. Sometimes this specialization derives from necessity (for example, smaller departments may lack the critical mass to do multiple things well), but often it is a matter of either deliberate choice or following a university-wide policy. The following quote from a respondent provides a telling illustration of department-level forces towards specialization:

“In our system, with our research standards, we would never hire anyone who relied on qualitative research. We had a faculty member several years ago who could not do quantitative research and we did not tenure her. She was a high quality faculty member, but our department could not support someone who could not do quantitative empirical research. One concern was that she could not advise PhD students who needed to be doing quantitative research.”

Second, quantitative research and quantitative specialization is more prominent than qualitative research and qualitative specialization, although more so for some measures than for others (see Table 1). For example, 38% of departments spend most of their research budgets on quantitative research, whereas only 13% do so for qualitative research. Similarly, of all participating departments, 33% have awarded most of their PhD degrees to students conducting strictly quantitative work, whereas only 4% display a similar devotion to qualitative work. Furthermore in 28% of the departments most empirical studies were based on quantitative methods, whereas in only 4% of the cases an equal degree of specialization towards qualitative methods could be noted. Moreover, 52% publish most empirical studies through quantitative research, but only 16% of departments report a similar dedication to qualitative research. A respondent who chaired a department characterized by a strong commitment towards quantitative work, formulated the sentiments underlying that department’s explicit policy in the following way:

“Notions of what is good science are very well-defined here. If it can’t be published in the Journal of Applied Psych or Academy of Management Journal, it won’t fly here. Even conceptual articles [as in] Academy of Management Review are viewed with some disdain by some members of the department.”

Third, and finally, quantitative research and quantitative specialization is much more common for schools in the United States (37 participating schools) than for those in the rest of the world (ROW; 34 participating schools; see Table 1). For example, 22% of ROW departments have received most research awards for quantitative research versus 85% of US departments. Furthermore, 22% of ROW departments publish most empirical studies through quantitative research versus 81% of US departments. Finally, 23% of ROW departments have mostly promoted or handed tenure to quantitative researchers versus 72% of US departments. A comment by the chair of a SO department in a ROW school possibly explains these differences:

“Within this field in this country, there is very little of the old pressure to do quantitative work for reasons of perceived legitimacy.”

Yet, it is doubtful whether these differences will persist, as 38% of the SO departments in ROW countries expect a clear trend towards more quantitative work in the next five years (albeit that 49% perceive no particular trend). One of our ROW respondents linked this trend to the proliferation of the US institutional model in ROW countries:

“Most [of our] faculty members are doing quantitative research. These studies are easier to publish in American journals. There [appears to] be a relationship between faculty that have an American tenure and promotion system [giving] tenure on the basis of the number of articles published, and the trend toward more quantitative studies.”

Ills Associated with Methodological Bias

Are these biases alarming? Does it matter whether the research focus of individual SO departments is predominantly towards quantitative (or qualitative) studies? Should we care if the SO field moves away from a balanced position, and thus becomes more specialized? The short answer to these questions is: “yes”.

Our principal argument against specialization is rooted in the concept of allocative efficiency. Academic departments distribute numerous resources that are critical to the advancement of science: jobs, prestige, career opportunities, and research money. The problem with allocation-within-constraints (e.g., “qualitative studies will not be funded” or “quantitative studies do not qualify for research awards”) is that scarce resources will not end up in positions where their potential can be fully exploited. If departments as a rule hire only quantitative people, they leave qualitative job candidates that might outperform their counterparts on relevant criteria such as research productivity and research impact scores unemployed. Also, if there is an active policy in place that only one type of project will be funded, it may well be that inferior projects get financed.

A second concern derives from the salient differences we observed between the methodological orientations of US schools and those of their ROW counterparts. These differences tend to translate into dedicated journal editorships and editorial board memberships. The top US SO journals like *Academy of Management Journal* and *Administrative Science Quarterly* tend to have editors and editorial board members who have earned their keep doing large-*N* research, whereas top non-US SO journals like *Organization Studies* and *Journal of Management Studies* are more likely to appoint officials with small-*N* research backgrounds. These appointments

serve as information cues that may lead to self-selection processes amongst (potential) contributors, and subtle filtering biases in the review process. Whereas it is difficult to assess the cumulative effects of these biases, we fear that they will lead to a situation in which US scholars will not publish much in European journals (and *vice versa*), ROW and US scholars stop reading and citing each other's work, and interest in international collaboration diminishes (cf. Baum, Greenwood, and Jennings, 2003).

A third argument against the institutionalization of methodological biases is that in order to reap the comparative advantages associated with the division of labor, specialization must go hand-in-hand with differentiation. In most fields of science, the principal division of labor is that between theory *builders* expanding the domain of possible knowledge and theory *testers* determining the range of feasible knowledge (Kuhn, 1970). Since theory builders need theory testers (and *vice versa*), collective specialization towards theory-building small-*N* research or theory-testing large-*N* research will eventually lead to shortages in the other and bring the advancement of science to a grinding halt. Furthermore, we believe in the entrepreneurial and innovative force of methodological pluralism. Increasing methodological variety at the departmental level creates opportunities for intellectual cross-fertilization and intercollegial collaboration in teaching and research. Schumpeterian *neue Kombinationen* simply do not emerge from a monomaniacal dedication to exploiting a single set of skills.

This brings us to our fourth and final argument against an increasing imbalance between small-*N* and large-*N* research, namely that it breeds inferior teaching. We will focus here on the training of graduate students. Most schools recognize the need to give PhD students a proper research methods training that includes both quantitative and qualitative techniques. Methodological biases towards

either method erode the quality of PhD training for two reasons. First, if there are no active researchers “of the opposite type” available in a department, who is there to give PhD students an informative training in the “minority” method? Second, should students choose to do research of that type, what supervisors will be there for them to work with?

But it is also inevitable that we give serious thought to the quality of our MBA teaching. For most of the schools we surveyed, MBA tuition fees and related alumni funding represent a very significant portion of their income, and support their research output. Almost without exception, these schools use the case study teaching method in their SO courses. At the same time, the bulk of these teaching cases are written by the faculty of a frighteningly small contingent of business schools in which this specific form of qualitative research happens to be acknowledged and rewarded. We fear that this small basis of case writers will inevitably lead to a less-than-optimal supply of teaching cases, which furthermore will be biased towards views held in certain social and economic regions.

Remedying the Ills of Methodological Bias

Clearly there is an abundance of problems associated with methodological biases, which creates a need to actively counter them. Since many of the problems we discussed derive from environmental restrictions on the free choice of individual scholars, our focus will be on the scholarly, professional, and institutional environments in which these individuals tend to work. Specifically, our aim is to present five recommendations for restoring the balance between small- N and large- N research in the SO field.

First, we begin by identifying mechanisms for effectuating change in scholars' direct work environments – SO departments. At present there appears to be a strong taken-for-granted status within departments concerning existing methodological biases: they are often not even a point of discussion. An increased awareness and recognition of departmental biases by its leadership and collective could lead to new directions in training, hiring, budgeting, and tenure policies. Active measures should therefore be taken to warrant that the decisions of standing committees favor methodological diversity. Most importantly, however, those involved with PhD teaching need to aim for fair and diverse training. Students should at least be able to understand and appreciate the type of questions that even a social science research giant like Donald Campbell struggled with. If PhD program coordinators find their department ill-equipped to offer diverse training, let them find a suitable course elsewhere in the university and enroll their students in it!

A second recommendation involves some serious homework for qualitative researchers themselves. In all fairness, the qualitative research tradition suffers from an evaluation problem in the sense that even among qualitative researchers themselves there is often much disagreement as to what constitutes good research. Constant sources of dispute (amongst many others) are: (1) distinguishing between different types of covariational evidence; (2) deciding between studying a social phenomenon *tout court* or as a representative of a larger class of phenomena; (3) choosing for suggestive or falsifiable forms of argumentation; and (4) using qualitative work for building or testing theories (Eisenhardt, 1989; Flyvbjerg, 2002; Gerring, 2004). When the evaluation criteria themselves are somewhat up in the air, journals can be expected to have problems accepting and publishing this type of research. Thus, qualitative researchers themselves should assume greater

responsibility for stating their work more clearly and making it fit for testing against commonly accepted scientific criteria like parsimony, explanatory power, and relevance. This may ask for some belletristic sacrifices, but unambiguous presentation is rightly regarded as the “entry price” (Gerring, 2004: 345) of social science.

A third recommendation involves a call to arms for organizations like the AoM and AACSB, whose aims are to professionalize, govern, and regulate the SO discipline. The AoM’s *Code of Ethical Conduct*, for example, pays attention to the prevention of discrimination based on “academic ideology” and aims to “encourage and respect multiple perspectives from members throughout the world in the development and practice of management knowledge” (www.aomonline.org). But the AoM could arguably do a better job of implementing its own clauses. At its annual conference, for example, non-traditional research methods seem to be stowed away in separated small divisions. Given its increasingly varied and international constituency (Van de Ven, 2002) one would also expect more than the current 10 to 11% of AMJ’s and AMR’s editorial board members to hail from outside North America. Similarly, through its *Accreditation Standards for Business Accreditation* the AACSB provides guidelines for business education and business school curricula (www.aacsb.edu). These standards would benefit from additional attention to measures supporting greater balance and diversity in SO departments’ research methods teaching.

A fourth recommendation aims to bring more balance to the field by addressing the editorial policies of SO journals. Editors and board members alike should become more aware of the divisions and tensions that characterize contemporary research in strategy and organization, and of their own methodological, disciplinary, and geographical positions in these debates (Baum *et al.*, 2003). While we believe that the efforts of especially the AoM to increase diversity in its journals

are sincere, they have not necessarily been effective and are interpreted by many as token change. Some of the editorial innovations promoted by SO! could potentially also make other journals more hospitable terrain for qualitative researchers. SO! draws more editorial board members from non-North American destinations (28%) than peer journals like SMJ (20%) and the Academy outlets (11%). Uniquely, SO! has also adopted method-neutrality as one of its basic premises, and seeks methodological, disciplinary, and geographical diversity rather than shying away from it (Baum *et al.*, 2003). Other journals could help restore the balance in the SO field by adopting similar policies.

A fifth and final recommendation is aimed at granting agencies like the NSFs and other government-based programs including the EU's 6th framework. These influential institutions should strive to alter their allocation policies to include a wider diversity of research types. In the survey, the number of received research grants appeared to be one of the most biased answer categories, which demonstrates the need to begin making policy changes in this terrain. In particular, a lessening of these agencies' focus on immediate publishability of results in favor of criteria like relevance, quality, and perceived future impact might help decrease existing biases. By acknowledging systematic biases in the field, these agencies too could stimulate the emergence of a variety of research that contributes to balancing the theory-building and theory-testing needs of the academic community and society as a whole.

In conclusion, we have argued for a methodologically pluralist approach to SO research and teaching to replace the methodologically orthodox approach that currently prevails. In terms of identification with pre-existing reference groups, we believe that the SO field would be better off taking a balanced multi-method discipline like sociology as its role model than a mono-disciplinary field like political

science. We believe methodological pluralism to be a better way of addressing the wide range of tremendously interesting organizational and societal problems facing us. To get there, changes are required within SO departments of top business schools, but also in the policies of the field-level organizations shaping and regulating other aspects of academics' professional lives. So that we can call *all* of that research.

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Table 1: Research Methodical Biases in Top SO Departments Worldwide

Question	N	Sample			U.S.			Rest of World		
		<i>75-100% Quantitative</i>	<i>75-100% Qualitative</i>	<i>Quant/Qual Balance[†]</i>	<i>75-100% Quantitative</i>	<i>75-100% Qualitative</i>	<i>Quant/Qual Balance[†]</i>	<i>75-100% Quantitative</i>	<i>75-100% Qualitative</i>	<i>Quant/Qual Balance[†]</i>
1. PhD theses completed [‡]	48	33	4	63	48	0	52	17	9	74
2. Budgets allocated	39	38	13	49	65	0	35	18	23	59
3. Research awards received	50	56	22	22	85	4	11	22	42	36
4. Empirical work undertaken [‡]	67	28	4	68	45	0	55	9	9	82
5. Publications	64	52	16	32	81	0	19	22	31	47
6. Tenure and promotion	58	50	16	34	72	0	28	23	35	42

[†] We use the term *balance* to describe departmental situations in which neither quantitative nor qualitative research has the upper hand. Respondents in this category have awarded less than 75 percentage points to both the “quantitative” and “qualitative” response categories.

[‡] These questions also allowed respondents to award percentage points to ‘a combination of qualitative and quantitative’ as a separate response category.

Endnote

¹ The anonymized data set, the survey instrument, and the interview protocol are available for inspection from the authors.