

No crisis but methodological separatism

A comparative study of Finnish and Danish publication trends between 1990 and 2009

Erola, Jani; Reimer, David; Räsänen, Pekka; Kropp, Kristoffer

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Title:

No crisis but methodological separatism. A comparative study of Finnish and Danish publication trends between 1990 and 2009

Authors:

Jani Erola (corresponding author), University of Turku, Department of Social Research

David Reimer, Aarhus University, Department of Education

Pekka Räsänen, University of Turku, Department of Social Research

Kristoffer Kropp, University of Copenhagen, Department of Sociology

Contact:

Postal: Department of Social Research, 20014 University of Turku, Finland.

Email: jani.erola@utu.fi

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Keywords:

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Biographies:

Jani Erola is Professor of Sociology at the *University of Turku*, Finland. His research interests include social class and stratification, family formation, intergenerational social mobility, sociological research methods, welfare state attitudes and social scientific publication patterns. His publications on these topics have appeared in major social scientific journals such as *Sociology*, *Social Forces*, *European Sociological Review*, *Acta Sociologica*, *Journal European Social Policy* and *Demography*, including “Why probability has not succeeded in sociology” published in *Sociology* 44(1). He was awarded a *European Research Council Consolidator Grant* for the project “Intergenerational Cumulative Disadvantage and Resource Compensation” in 2013.

David Reimer is Associate Professor at the Department of Education, *Aarhus University* Denmark. His research focus is on social stratification, with a focus on inequalities in education across class, gender and ethnic divides. Recently he has also developed an interest in the sociology of knowledge. Most of his work has a cross-country comparative perspective. His work has appeared in various international journals such as *European Sociological Review*, *Higher Education*, *Social Science Research*, *International Journal of Comparative Sociology* and *European Societies*.

Pekka Räsänen is Professor of Economic Sociology at the *University of Turku*, Finland. He has studied a variety of topics connecting with social inequalities, mass violence, digital culture, and consumer behavior. He has published more than 30 articles in international scholarly journals, including *New Media & Society*, *the Information Society*, *European Societies*, *Comparative Sociology*, *European Journal of Criminology*, and *Journal of Youth Studies*. His current research focuses on economic and cultural foundations of consumer identities, and on interrelationships between online and offline behavior.

Kristoffer Kropp assistant professor at the Department of Sociology, *University of Copenhagen*, specializing in sociology of scientific knowledge. In his research he looks in to the development and changes within the social science, especially sociology and the relation between state and social sciences. He is currently studying the production of empirical social scientific knowledge at a European level. He has recently published in *Science and Public Policy* and in *Social Sciences Information*.

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Abstract

This article compares methodological trends in nationally and internationally oriented sociology using data from the articles of three Nordic sociological journals: one international (*Acta Sociologica*), one Finnish (*Sosiologia*), and one Danish (*Dansk Sociologi*). The data consists of 943 articles in total: 353 published in *Acta Sociologica*, 277 in *Sosiologia* and 313 in *Dansk Sociologi* over the period 1990-2009. We distinguish between three main types of article: those having no or very little empirical content, empirical articles applying qualitative analysis, and empirical articles applying quantitative methods. The results suggest that quantitative research is increasingly concentrated in international publishing venues, while national journals act more and more as platforms for qualitative research. In conclusion, the broader implications of these diverging publishing trends for sociological research are discussed.

Keywords: publishing trends, sociological methods, theory, qualitative methods, quantitative methods

Introduction

The debate on different research paradigms and epistemology has a long tradition in sociology that spans across decades, involving greats of the discipline such as Weber, Popper, Blumer and Adorno (e.g. Frisbie, 1972; Gage, 1989). Recently the discussion has evolved to include a number of empirical studies suggesting that an increasing proportion of research published as journal articles in Europe, especially in the UK, applies qualitative methods (e.g. Payne et al., 2004; Hanson, 2008; Platt, 2008). The possible explanations for the increasing frequency of qualitative articles in mainstream journals have included the changing male/female author ratio (e.g. Cohen et al., 2011); the decline of the “positivistic hegemony” marked by the reduced amount of quantitative research and the simultaneous increase of qualitative studies (e.g. Alasuutari, 2010); a lack of sufficient skills for conducting quantitative research as a result of inadequate training (e.g. Payne, 2007); and the inadequacy of survey methods in answering the key social questions in the era of *knowledge capitalism* (Savage and Burrows, 2007).

However, empirical studies have not supported any of these arguments directly. Furthermore one can question whether previous results regarding methodological trends in sociology only represent a limited sample of journals and volumes. Most of the empirical studies have used country-specific data, typically one scholarly journal at a time. In addition, almost all of the previous studies have relied either on a very short time-frame or on cross-sectional snapshots, making a proper analysis of trends impossible. These caveats in the existing research make it hard to distinguish the influence of a possible general trend from indigenous, nationally concentrated sociology towards international social science (see Smelser, 1991; Quah, 1993; Vanderstraeten,

2010). The observed increase of qualitative studies at the national level may simply be a result of the increasing proportion of quantitative studies being published in international publication venues that are not covered by the data of the previous studies.

This possible methodological specialisation according to target audience is hard to observe in many country contexts. For instance, this journal (*Sociology*) may appear to be mostly targeted at a British sociological audience if considered from the British point of view. However, for the rest of European sociology it seems to be primarily an international publication venue.

This article contributes to the debate by examining the methodological trends for two Nordic countries, Denmark and Finland, over the past two decades. These countries make good test cases for contrasting national and international publishing: they are of relatively similar size; and the researchers face the same challenges in having to choose between publishing in their native language for a comparatively small national audience, and placing their work in an international, English-language context. The native primary languages, Danish and Finnish, are hardly used outside these countries. Consequently the distinction between international and national publishing should be particularly clear-cut.

We study methodological publication trends by examining journal articles published in the two main national journals (*Dansk Sociologi* in Denmark and *Sosiologia* in Finland) during the period 1990-2009, whilst contrasting them with one international journal (*Acta Sociologica*). The national journals are published by the national sociological associations in Danish and Finnish, respectively; while *Acta Sociologica* is published in English as a joint effort of the Nordic Sociological Association (including the Icelandic,

Norwegian and Swedish associations as well). *Acta Sociologica* was founded in order to increase the international readership of Nordic sociology, and originally accepted only articles which were written by Scandinavians or which studied the Nordic countries (Agersnap and Widerberg, 1995). Today, almost two-thirds of the authors still come from these countries.¹

We contrast the assumption about the diverging national and international publication venues with the previously suggested explanations for changes in methodology: the changing male/female author ratio, the competition between qualitative and quantitative approaches; the importance of multi-authorship; the proportion of non-university based researchers; and the process of internationalisation. Before going into empirical analysis, we discuss general methodological trends in sociology journals with a focus on the Nordic countries.

Methodological trends in sociological publishing

Why should we expect that certain kinds of research (or researchers) are more prone to be published internationally, while others gravitate more towards national publication?

We could start by considering the discussion regarding indigenous vs. international sociology. In an article published in 1979, Hiller noted that there was a sudden widespread call for national rather than universal sociology during the 1970s. According to Hiller, the trend towards “indigenous” sociology was motivated by the desire to conduct research more independently of US sociology, to provide more thorough information on national societies, and to construct the discipline based on a society’s own concept of social science.

In the early 1990s, Smelser (1991) and Quah (1993) argued that there was a shift in the opposite direction: towards the international unification of sociology. In their view, the unification of sociology could only be achieved if generalisations could be made about the mechanisms involved in the explanations and data used in various societies (Quah, 1993). It could be argued that it is easier to achieve this goal using quantitative analysis aiming at generalisations from the sample to the population, whereas qualitative research usually aims at understanding the phenomena studied in relation to their unique features.

The different analytical principles applied in the two approaches may also increase the divergence (e.g. Newman & Benz, 1998; Patton, 1990). Quantitative research typically applies the probabilistic approach to explanation, accepting that theories have different likelihoods of being valid. So providing additional or partial information on this probability, even from a single nation, can be regarded as a contribution towards findings that would apply everywhere. Qualitative data is not necessarily suitable for providing information on the relative importance of different explanations (Erola 2010). That is why in comparative analysis in particular, the aim of qualitative research is to obtain a broader theoretical understanding of the research phenomena being studied (e.g. Alasuutari, 1996; Patton, 1990), which often leads qualitative researchers to defy the quest for empirically validated theories. In this sense internationalisation would favour quantitative over qualitative research.

An even greater barrier is related to data. A large part of the qualitative research in non-English-speaking countries is based on non-English textual material; and even in the English-speaking countries the qualitative research material is often assumed to include “cultural” components that cannot be easily understood by anyone but readers from a

similar national background. Manuscript length limitations in journals set boundaries on the extent to which a researcher can explain these components to an audience which is not familiar with them.

The diversification of sociology (Clark 1999; Payne 2007) may also play a role. If publishing venues react to this diversification by becoming increasingly specialised, it may lead to the kind of fragmentation (see Payne 2007) that is associated with the growth of “indigenous” national journals and the decreasing influence of the international generalist arenas. However, it may be that diversification is followed by stronger stratification rather than fragmentation. *The Matthew effect*, the finding that the rewards of scientific inquiry tend to accumulate to those who have already previously succeeded in this effort (Merton, 1968, 1988), provides an incentive for targeting publishing in the high-impact journals. This results from the fact that each reference increases individual advantage in the academic domain. Because of the sheer size of the target audience, this advantage is likely to be greater in international than in national journals.

We might apply this idea to the analysis of methodological publishing trends in scholarly journals. If there are more barriers against publishing qualitative research in the international venues, researchers interested in maximising their relative advantage would be well advised to conduct quantitative research instead. This would make journals with an international scope concentrate increasingly on publishing quantitative research, while national journals will receive an increasing proportion of qualitative manuscripts. So the increasing presence of qualitative research in national journals may just be a secondary outcome of the Matthew effect.

However, it is questionable whether sociologists will be this instrumental in their choice of research method. Researchers who subscribe to a particular epistemological orientation may be unable or unwilling to choose freely between quantitative and qualitative methods, irrespective of the publication options and the possible effect on their careers. Platt (2007) as well as Cohen et al. (2011) make this observation in relation to feminist research, which often rejects quantitative, positivist approaches. Similarly, postmodern or constructivist positions will often be difficult to reconcile with quantitative approaches. Additionally, the choice of paradigm and method is not independent of contextual factors and other stratifying variables such as gender. Female researchers, for example, have been thought to be more likely than males to choose qualitative methods because these methods are congruent with stereotypical female traits such as empathy, evocation of emotion or establishment of rapport (e.g. Grant, Ward and Rong 1987; Grant and Ward 1991).

Another contextual factor that might influence methodological choices and trends is the researcher's type of institutional affiliation. For researchers working in national research institutions, publishing in national rather than international venues might be the preferable option due to external demands.

Previous studies on publishing trends in sociological journals

One of the most important empirical contributions to the discussion on methodological trends in sociology was an article by Payne et al. (2004) on research published in the British sociological journals *Sociology*, *British Journal of Sociology* (BJS), *Sociological Review* and *Sociological Research Online*. They found that in 1999-2000 nearly 38% of the articles published in the journals were non-empirical, with 41% being qualitative,

14% being quantitative, and 7% applying mixed methods. The authors noted that their sample was too small (and the covered period too short) to make any major conclusions about the causes, but they still maintained that “...one would have to conclude that *British sociology was very strongly oriented away from quantitative methods.*” They nonetheless speculated about the influence of the increasing proportion of female or junior authors who are more prone to conduct qualitative research. Women may be more likely to choose qualitative methods because of the type of research questions involved, while junior staff may have a similar emphasis because they lack quantitative method skills. While Payne et al. (2004) found some indication of bias towards the use of qualitative methods by junior authors, this evidence seemed to be rather inconclusive.

The influence of gender has also been considered in other studies. Analysing articles published in ten major North American sociology journals in the 1970s and 1980s, Grant et al. (1987) found that even though both male and female authors were in general more likely to publish quantitative articles, women published more articles using qualitative methods than men. Platt (2007) found that the increasing presence of female authorship in the articles published in *BJS* and *Sociology* since the 1950s did not explain the trend towards qualitative methods. In 2011, Cohen et al. studied the qualitative/quantitative research gap in “women’s studies” journals, suggesting that a large number of the studies that could be associated with the feminist approach were qualitative, and that only authors originating from the US appeared to use a quantitative approach in studies of feminist issues.

There are also a number of cross-national comparisons. Gartrell and Gartrell (2002) compared the articles published in the *American Journal of Sociology* (AJS) and *American Sociological Review* (ASR) with those published in *BJS* and *Sociology* in

1966-2000. Their data shows a much lower prevalence of the terminology typical of quantitative research in the abstracts of the articles published in American journals than in the UK counterparts. The contrast appeared to be increasing between the articles published in *Sociology* and in *AJS*. The terms considered were: statistics, empirical relations, operational definitions and hypotheses.

As an indicator for the arena of international sociology as a whole, Hanson (2008) studied the *Sociological Abstracts* database from the 1960s to the 2000s. The analysis shows a substantial growth in the proportion of papers that included the term “qualitative” and a decrease in the use of the term “quantitative”. However, the number of abstracts considered grew substantially as well – from 80,000 records in the 1970s to 213,000 records in the 1990s, which may be regarded as a sign of diversification.

In the response to Payne et al. (2004), May (2005) notes that academics committed to quantitative methods would not be likely to publish in the British journals that were analysed, but rather in the *European Journal of Sociology*, *Acta Sociologica*, *AJS* or *ASR*. When looked at from the British perspective, all these journals would also be regarded as “international” rather than national journals (see Crothers, 2011). When combining these observations with the findings of Gartrell and Gartrell (2002), one may conclude that researchers using quantitative methodologies are more prone to publish internationally than nationally.

Publishing trends in a Nordic context

The discussion following the articles by Payne et al. was largely UK based (see May, 2005; Payne et al., 2005; Payne, 2007; Byrne, 2012). Despite this, the findings probably reflected European sociology more generally. The countries from which the national

data sets applied in this article originate are Finland and Denmark. We will now consider how they relate to this discussion.

In Finland the so-called linguistic turn in the early 1990s was characterised by widespread arguments as to whether Finnish sociology was dominated by the use of “positivistic” quantitative methods (e.g. Alasuutari, 2010; Alastalo, 2005). However, no sign of the particular dominance of a quantitative approach in Finnish sociology since the 1960s has been found. In fact, in two recent analyses it demonstrated that the proportion of quantitative articles was already relatively low in the 1960s (Räsänen et al. 2005; Erola and Räsänen 2007). For example, less than 20% of the articles published in *Sociologia* (the national journal of Finnish sociology) in the 1960s and 1970s were quantitative. On the other hand, nearly 80% of the published articles were theoretical or non-empirical contributions during that period. The situation changed dramatically during the next decades. The proportion of qualitative research has been constantly growing in the leading Finnish social science journals since the early 1980s. However, the increase of qualitative articles has resulted in a decrease of non-empirical articles rather than a decrease in quantitative articles. Throughout the 1980s and early 1990s, approximately 15% of the articles were quantitative, 15% qualitative, and 70% non-empirical respectively. Only a few articles in *Sociologia* have combined both quantitative and qualitative techniques over the decades.

To the best of our knowledge, no analyses of methodological trends in Danish sociology have ever been published. Despite this, however, it has been suggested that the divide between sociologists adhering to a more positivist, quantitative orientation and sociologists tending towards alternative paradigms is also inherent in Danish sociology (e.g. Gundelach, 2000; Jæger, 2006). While quantitative-oriented social stratification

research was dominant in Denmark in the 1950s and 1960s (Rudfeld and Webb, 1977), a trend towards more cultural as well as Marxist sociology could be witnessed during the 1970s and 1980s. Possibly connected to this development, the two sociology departments at the University of Copenhagen, the only place offering a genuine sociology degree programme in Denmark at the time, were closed in the late 1980s by the Danish Ministry of Education. The reasons given for this decision included the lack of employment opportunities and the insufficient quantitative focus of this degree programme (Hansson and Nielsen, 1996).

The department was reopened in 1990, and ever since that time sociological research in Denmark has, in general, become more applied and policy oriented (Kropp and Blok, 2011). However, as suggested by two recent evaluation reports, there seems to be a lack of quantitative skill and training in Danish sociology (e.g. Forskningsrådet for Samfund og Erhverv 2006, SFI, 2006).

Research questions, data and variables

Our initial assumption to be tested is related to the overall differences in trends between the journals chosen:

1) *National vs. international publication venue*: We assume that while publications in national journals are becoming more qualitative, international journals like *Acta Sociologica* are becoming more quantitative.

Assuming we can find empirical support for this, we can test some explanations for the differences. Based on the discussion on methodological trends in journal publishing, we outline three possible causes for the trend towards higher proportions of qualitative

methods in national publications compared with higher proportions of quantitative methods in *Acta Sociologica*.

2) *Gender*: The changes towards an increasing proportion of qualitative methods may be explained by changes in the female/male authorship ratio, reflecting systematic gender differences in epistemological position and/or topical focus.

3) *Educational qualifications*: The change towards a decreasing proportion of quantitative research can be explained by increasing proportions of non-PhD authorship, reflecting a possible lack of competencies in quantitative methods among junior researchers. With regard to the articles applying quantitative methods, the authors without PhDs are perhaps less prone to apply more advanced and thereby difficult methods.

4) *Institutional affiliation*: The overall changes in the publication pattern according to institutional affiliation may be related to an increase in the number of researchers from non-university institutions publishing in national journals. Empirical work done outside the university has to be made accessible to an audience without expert knowledge of statistics. As a result, researchers from non-university institutions might be more prone to use qualitative methods.

We analyse all the articles that appeared in one international journal, *Acta Sociologica* (N=353), published by the Nordic Sociological Association, and two national journals, *Sosiologia* (published in Finnish; N=277) and *Dansk Sociologi* (in Danish; N=313) published by two national sociological associations² over the past two decades from 1990 to 2009. The Nordic association consists of all the national associations in the Nordic countries. It is therefore a natural medium for researchers from these countries to

publish articles intended to reach the international sociological community. All the chosen publications are generalist sociology journals that are not committed to any particular methodological or theoretical paradigm. This approach was chosen in order to represent the entire sociological community that they cover.

Excluding reviews and commentaries, our database consists of 943 articles. Given this sample size and the fact that our data spans two decades, we should be able to detect methodological trends in sociological publishing for the selected country cases. All the articles are coded into three groups in order to measure their methodological orientation: 1) theoretical and non-empirical, 2) qualitative, and 3) quantitative. It should be mentioned that there were too few articles applying both qualitative and quantitative methods (a total of 25) to justify the use of this category in our analysis. In these cases, the qualitative methods were typically applied in support of the main quantitative arguments, which is why they are regarded as quantitative articles in the following analyses. However, this procedure had no influence on the results of our analysis – they could also have been combined with the qualitative articles or dropped altogether without affecting the main conclusions.

We measure the gender composition of the authors by constructing a variable indicating whether the articles were written by men, by women, or by both men and women. This variable has three levels and is used with a dummy control indicating whether the article was written by a single or multiple authors. Similarly, the variable measuring the educational qualification of the author(s) is coded into authors with either all PhDs, all MAs or Bachelor/mixed educational qualifications. This information was missing from *Acta Sociologica* before the year 2000, and was therefore gathered from external sources.

Using contact information provided in the articles, we construct a dummy variable indicating whether any of the authors work inside or outside of academia in order to measure institutional affiliation. As an extra control variable, we construct a dummy indicating whether any of the authors are based outside the Nordic countries in the case of *Acta Sociologica*, outside Finland in the case of *Sosiologia*, and outside Denmark in the case of *Dansk Sociologi*. We have also constructed a dummy variable measuring whether the articles coded as quantitative apply very basic methods, such as tables of frequencies or correlations, or whether more advanced statistical methods (such as regression analysis or any multivariate methods) are used.

In order to gauge the impact of these variables in four nested multinomial logit models, we treat the methodological orientation of the article as the dependent variable. To formally test our proposition about whether there is a diverging trend towards qualitative methods in national vs. international journals, respectively, we specify an interaction term between a linear trend (using the year of publication) and the type of journal (national vs. international). In order to facilitate interpretation of the results of our models, we report average marginal effects rather than log-odds or odds-ratios. The marginal effect illustrates how much the dependent variable, in our case the probability of publishing an article using *non-empirical* (vs. all other methods), *quantitative* (vs. all other methods) or *qualitative* methods (vs. all other methods) is expected to increase or decrease for a unit change in the explanatory variables. Given that the size of this effect will differ across the values of all the independent variables in the model, we choose to report average marginal effects (AME). AMEs provide a reliable summary of the effect because they average out the size of the effect across all the observations in the sample (Morgan and Winship, 2007).

Results

Overall publication trends

Figure 1 shows the proportion of each type of article published in each journal during the period covered. One-third of the articles published in *Acta Sociologica* are non-empirical or theoretical, and more than half are quantitative. In *Sosiologia* more than half of the articles are non-empirical, and slightly under one-third are qualitative. In *Dansk Sociologi* about 40% of the articles are non-empirical, and about the same proportion are qualitative. So the overall publication patterns in the two national journals are quite similar, and we therefore chose to combine them in the following analyses.

[Figure 1 about here]

Table 1 reports the distributions of the explanatory variables according to the type of publication and the first and second decade covered (1990-1999 and 2000-2009). While the proportion of solely male-author articles is almost the same in both *Acta Sociologica* and the national journals, the former publishes slightly more mixed-gender, multi-author papers. Additionally, the proportion of authors with PhDs and with mixed qualifications is greater in *Acta Sociologica*. The proportion of articles published by researchers in non-academic positions does not differ between the two types of journal. Female as well as joint authorship became more common during the second decade covered.

Articles published by authors outside academia appear in equal proportions in both types of journal. As can be expected, non-Nordic authors publish more in *Acta Sociologica* than authors from outside Denmark in *Dansk Sociologi* or outside Finland in *Sosiologia*. Finally, only about every fifth quantitative article in *Acta Sociologica*

applies simple statistical methods, whereas in the national journals simple methods are applied about as often as more advanced ones. However, in *Acta Sociologica* even the papers applying simple quantitative methods are more common than similar articles in the national journals. The application of more sophisticated quantitative methods appears to become more usual during the second period.

[Table 1 about here]

We now consider the overall change in the methods applied in the journals. We use predicted probability plots to illustrate the development of the methodological trends over time. Two types of representation are used in order to depict trends. The detailed biennial trend summarises the methodological orientation of articles across two years, while the linear trend spans across the entire data range. While both the biennial and linear trends are acquired from multinomial logit models, the biennial results would be the same if we simply plotted the biennial percentages separately for each type of article in both journals. This is because the baseline models control only for interaction between the journal and year.

The predicted probabilities for the methodological orientation of articles that are published in either *Acta Sociologica* or the two national journals are shown in Figure 2. The top panel of the figure suggests that the proportion of non-empirical articles is decreasing in both cases. The linear trend predicts that if this decrease continues, *Acta Sociologica* will no longer be publishing non-empirical articles by the end of this decade. However, the substantial variation in the biennial figures suggests that this is not likely to occur in the near future.

[Figure 2 about here]

The middle panel shows that the proportion of qualitative articles has more or less doubled in *Dansk Sociologi* and *Sosiologia*, with about half of the published articles being qualitative by the end of the last decade. The proportion of qualitative articles has also grown in *Acta Sociologica*, but this growth has been fairly slow, and not statistically significant. Instead, the proportion of quantitative articles has strongly increased in *Acta Sociologica*, as shown in the lowest panel of Figure 2, while over two-thirds of the articles published in *Acta Sociologica* were already quantitative at the beginning of the observed period. However, by the end of the last decade, only about one-third of the articles were other than quantitative. The linear trend-line for the quantitative articles in the national journals has remained more or less flat for the whole period.

The figures confirm our first assumption regarding the diverging publishing patterns between the international and the national journals. There appears to be a certain level of reciprocity in the biennial variation between *Acta Sociologica* and the national journals, especially once the linear change has been taken into account. In general, when the national journals publish certain types of article more than the linear trend predicts, the proportion published in *Acta Sociologica* is in many cases lower than the linear prediction, and vice versa. This relationship also applies to other types of article. For instance, the increase in the number of qualitative articles published in 1994-1997 in *Acta Sociologica* coincided with the diminishing proportion of the same type of article published in the national journals.

The suggested explanations

We now consider the suggested explanations for the trends revealed by our analysis. In order to do this, we extend the multinomial models reported in Figure 2 to include a set of control variables. Table 2 reports the average marginal effects for the national journals, contrasted with *Acta Sociologica*, in 1990 and 2009, when linear methodological trends are assumed. In the first model the difference is conditioned only on single authorship, while Models 2-5 are conditional on the other explanatory variables, which were step-wise entered into the equation. According to Model 1, the estimated proportion of theoretical/non-empirical articles published in the national journals was about 5 percentage points higher than in *Acta Sociologica* in 1990 once we took into account the differences associated with single authorship. The difference in publishing non-empirical articles was not statistically significant. This difference increased to 13% in 2009, making it almost statistically significant. Similarly, the proportion of qualitative articles published in the national journals was about 15% higher than in *Acta Sociologica* in 1990. This difference grew to 31% in 2009. Finally, the proportion of quantitative articles that appeared in the national journals was 21% lower than in *Acta Sociologica* in 1990. This difference grew to 44% in 2009. Overall, these results support our assumptions about diverging publication patterns between national and international publication outlets in the Nordic countries, and show that the changes cannot be explained by the changes in the single/multi-authorship of the articles.

[Table 2 about here]

In Model 2 we control for the gender composition of authors, which explains about one-third of the change in the case of qualitative articles ($0.31 - 0.15 = 0.16$ in Model 1 and $0.27 - 0.17 = 0.10$ in Model 2). Taking gender into account increases the proportion of

non-empirical pieces by almost the equivalent amount, while the estimated proportion of quantitative research is hardly affected. This suggests that the gender composition of the authors has contributed to the shift from non-empirical and theoretical articles towards qualitative research. However, changes in gender composition do not help to explain why the proportion of quantitative research has grown in international publishing.

In Model 3 we additionally control for the educational qualifications of the authors. This makes the differences between national and international journals more contrasted in the case of qualitative and quantitative articles, and less contrasted in the case of theoretical articles. The importance of the educational composition of the authors appeared to be important at the beginning of the observed period, but subsequently becomes less important for explaining varying publication patterns.

Next, Model 4 takes into account the non-university affiliation of the authors and whether they come from outside Denmark or Finland, respectively, in the case of the national journals, or outside the Nordic countries in the case of *Acta Sociologica*. This makes the change in the difference of theoretical publishing smaller and in qualitative publishing larger, close to proportions of the first model. A closer examination of the effects suggests that this change is primarily due to the reduction of non-academic authorship (see Table 3). So increasing female authorship appears to be associated with the increasing proportion of jointly authored papers among the academics. This has likely occurred because papers coauthored by supervisors and students have become more common at the same time as more women have been admitted to universities. This kind of authorship is not typical outside academia and does not seem to occur often in the case of the theoretical articles.

Finally, Model 5 takes into account the different probabilities of the journals of publishing articles applying at least standard or advanced level quantitative methods.³ The results indicate that the growing difference between the national journals and *Acta Sociologica* in publishing theoretical and qualitative articles is associated with the fact that *Acta Sociologica* publishes increasing numbers of quantitative articles that apply advanced methods. However, at the end of the observation period *Acta Sociologica* was more likely to publish research applying even simple quantitative methods than its national counterparts. This pinpoints how thorough the methodological divergence in the publication patterns between the journals is. It is clearly not the case that *Acta Sociologica* only favours statistically more sophisticated quantitative papers.

We report the average marginal effects for the independent variables from Models 4 and 5 in Table 3. They suggest that the tendency towards multi-authorship is associated with the increase of quantitative research at the expense of theoretical and non-empirical articles. This appears to be linked to the fact that applying more advanced quantitative methods lends itself to working in author teams rather than alone. Controlling for the prevalence of the standard or advanced statistical methods reduces the difference by one-fourth ($0.26 - [-0.28] = 0.54$ in Model 4 vs. $0.2 - [-.19] = 0.39$ in Model 5). As already indicated above, female authorship is associated with qualitative research. The same applies to some extent to non-PhD authorship. The authors without PhDs are less likely to publish theoretical research. This suggests that qualitative, quantitative and theoretical research require different types of specialisation. Qualitative research may be preferred over the other types of research because of different degrees of training in quantitative methods. Naturally, this may equally well occur simply because qualitative methods are trendier among the younger academics.

[Table 3 about here]

A non-university institutional affiliation appears to be linked with a lower probability of theoretical and non-empirical publishing, while this is not true with regard to quantitative research. This is the opposite of what we expected. The comparison between Models 4 and 5 suggests that non-academics are more likely to conduct quantitative research applying more advanced methods. Moreover, theoretical and non-empirical research appears to be more closely associated with authors either from outside Denmark or Finland in the case of the national journals, or outside the Nordic countries in the case of *Acta Sociologica*.

Summary of findings

Our results indicate that theoretical and non-empirical articles have been replaced by a growing proportion of empirical articles in all of the sampled journals. It appears that at least in the Nordic context, sociology has become a more empirically oriented science since the early 1990s. However, while the national journals have witnessed a growth of qualitative research, the selected international journal, *Acta Sociologica*, has increasingly published quantitative articles.

We believe that a similar pattern applies to sociology outside the Nordic countries as well, although it is much harder to observe because of the less clear-cut overlap of the national target audience and the publication language. A large part of the growth of quantitative research in *Acta Sociologica* is associated with the increase of more advanced quantitative methods. However, even articles applying only basic quantitative methods have become more common in *Acta Sociologica* than in *Dansk Sociologi* or *Sociologia*. So this difference can be attributed not to *Acta Sociologica*'s focus on more

sophisticated quantitative methods alone, but to the use of quantitative methods in general. The choice between using simple and advanced statistical techniques may ultimately be related more to the type of research questions asked and data availability than to the issue of international versus national publication outlet.

Female authorship is associated with a higher prevalence of qualitative research in national journals. Assuming equal gender distribution changes only the probabilities to conduct theoretical and qualitative research. The growth of quantitative research in *Acta Sociologica* does not seem to be related to the gender composition of the authors.

Authorship by scholars without a PhD is an important explanation of the lower probability for quantitative research in the national journals at the beginning of the observed period, but it does not seem to play a role at the end of it. So the diminishing methodological skills of authors below the PhD level do not appear to play a role in the methodological publication patterns.

Further, while a non-university background of the authors is associated with a lower tendency towards theoretical and non-empirical research and a higher tendency towards quantitative research, this association does not appear to explain the diverging methodological trends between the journals. The same applies to authors based outside Denmark or Finland in the case of national journals, and outside the Nordic countries in the case of *Acta Sociologica*.

The last remark to be made on the models is that it does not seem likely that the profiles of the authors of quantitative articles have changed much over time, as the marginal effects for quantitative papers are largely unchanged from Model 1 to Model 4.

Conclusion

Our empirical observations do not fit with recent arguments on the methodological crisis in sociology (e.g. Savage and Burrows, 2007). It appears to be clear that the Nordic journals have increasingly divergent profiles in terms of publishing theoretical and empirical research. While these distinctions have become even sharper in the 2000s, the analyses above do not reveal the causes behind this phenomenon. The previously discussed assumptions related to the gender, education and institutional background of the authors did not explain much of the change in the methodological trends. We do find support for women publishing more qualitative research in national journals than before; however, this explains only part of the change from theoretical to qualitative approach in those journals.

Therefore, only our first assumption on the methodological divergence between national and international publishing receives unconditional support. The results fit with the argument that the Matthew effect driving publishing in the higher-impact international journals is more advantageous to quantitative than to qualitative research. This may be because of the probabilistic results of quantitative research have a smaller number of cultural components requiring less room for explanation in order to be understood by non-national readers.

Other assumptions regarding the causes of the rest of the change can be hypothesised. First, as mentioned earlier, language issues may also be associated with the publishing patterns. Qualitative research materials often come in a linguistic form (such as interview data or online discussions). In many cases, offering precise translations for these transcripts is extremely difficult, if not altogether impossible (e.g. Bryman, 1998; Silverman, 1993). This extends to the application of the qualitative methods as well. According to Alasuutari (2010), for instance, the variations in qualitative data parsing

techniques are considerable even between the European countries. All these factors can raise the threshold for the international publishing of qualitative research. In quantitative research the strategy is almost the opposite. For example, items in international surveys may be translated and understood very differently in different languages and cultural settings. Despite this, the cross-national results are usually reported without much methodological elaboration on contextual issues. The application of quantitative techniques is more standardised; descriptive statistics or means comparisons are reported and understood similarly everywhere. If the topics of qualitative studies are less often cross-nationally comparable than in quantitative research, it follows that qualitative research is less likely to be published internationally.

Some previous assumptions were not supported. For instance, it does not seem likely that qualitative research has become more common because students are more exposed to qualitative research techniques rather than quantitative ones during their training (see Payne et al., 2004; Williams et al., 2008). Had this been the case, we would have observed the increasing proportion of qualitative research published by the non-PhD authors, especially in the national journals. However, taking into account education of the authors did not reduce the difference in qualitative publishing between the journals. In fact, it increased the difference instead.

It could also be argued that methodologically cutting-edge papers are now more likely to be submitted to specialised methodological journals rather than to generalist international journals such as *Acta Sociologica*. However, this does not explain why qualitative research is relatively underrepresented in *Acta Sociologica* when compared to the national journals of Denmark and Finland.

Although the results come from Denmark and Finland, our findings to some extent reflect results from earlier studies examining the associations between authors' background and publishing practices (see Payne et al., 2004; Williams et al., 2008). It is thus possible to conclude what our findings – and similar compelling findings from other countries – may mean in the near future.

Naturally, we have to acknowledge that our sample does not capture the entire body of sociological production in Denmark or Finland over the past two decades. Important publication outlets such as books, working papers or articles published in specialised or other international journals are not included in our sample. We have no reason to believe, however, that the chosen journals do not accurately represent methodological trends in Danish or Finnish sociology (see Payne et al. 2004: 156).

We may expect that theoretical research will suffer most from the diverging publication patterns. If the trends we find continue, fewer and fewer theoretical papers will be published in international (generalist) journals in the future. It is also likely that in the long run the divergence between national and international publishing will affect the status of qualitative research negatively in relatively small countries like Finland or Denmark. Quantitative and qualitative research do not seem to compete with each other, as they appear to find different publication venues. However, if a growing proportion of qualitative research is published in national, non-English journals, this type of research is likely to experience a weakening impact measured in terms of the number of citations. From the perspective of methodological pluralism, i.e. a tolerance of a variety of methods and approaches in sociological research (e.g. Payne et al. 2004), this development is problematic. In other words, the rewards attached to national vs. international publications and thus to a more qualitative vs. quantitative publication

strategy will not be equal. We regard this unbalance between publishing rewards as an unfortunate development for sociological research.

We may also add that the diverging publishing trends have even more significant consequences when it comes to promoting women's research careers and gender equality. Currently, women are more likely to publish qualitative articles than men. This necessarily means that women face the risk of becoming outnumbered by men when it comes to the international visibility of their academic output. Unless the choice of method is regarded as epistemic, the use of quantitative methods could be encouraged more among female scholars at the beginning of their careers in order to promote gender equality within social sciences. An additional strategy could be that in non-English speaking countries qualitative research methods training would place special emphasis on strategies and tools aiming at translating and presenting the collected data and findings to international audiences. However, if the bias is caused by the acceptance practices in journals rather than by authors themselves, this strategy would not be effective.

Methodological diversity is a necessary precondition for multifaceted social science, and contextualised insights into country-specific phenomena should be valuable to the whole international sociological community. However, if the practitioners of different approaches continue to diverge to different outlets, how can we make different areas of sociology accessible for every sociologist?

Endnotes

¹ The distinction between international and national journals overlaps with the distinction between national language vs. English language journals. We prefer the former because international English-language journals such as *Acta Sociologica* accept and publish work from a variety of countries.

² All the Nordic national sociology journals occasionally publish articles in Swedish. This is why including Sweden in our comparison would be problematic.

³ This can be interpreted as a conditional covariate effect that varies only within the third category (quantitative articles) of dependent variables.

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Table 1. Independent variables according to publications.

	<i>Acta Sociologica</i>	<i>Dansk Sociologi & Sosiologia</i>	1990-1999	2000-2009
All male	65.62	65.87	70.44	60.99
All female	21.02	26.15	21.59	26.94
Mixed	13.35	7.98	7.97	12.07
	100%	100%	100%	100%
All PhDs	65.9	52.8	59.75	55.6
All MAs & BAs	19.9	35.65	33.12	26.29
Mixed	14.2	11.54	7.13	18.1
	100%	100%	100%	100%
Multiple authors	31.82	15.11	16.14	26.72
Single author	68.18	84.89	83.86	73.28
	100%	100%	100%	100%
University	86.36	85.91	83.23	89.01
Non-academic	13.64	14.09	16.77	10.99
	100%	100%	100%	100%
National/Nordic auth.	61.65	88.29	79.87	76.72
Outside	38.35	11.71	20.13	23.28
	100%	100%	100%	100%
Not quan	46.31	85.91	73.17	68.97
Simple	11.93	7.3	10.06	7.97
Standard/Advanced	41.77	6.89	16.77	23.06
	100%	100%	100%	100%

Table 2. Average marginal effects for *national* articles (contrasted with *Acta Sociologica*) in 1990 and 2009 after conditioning on control variables.

Predicted vs. other outcomes		Model 1		Model 2		Model3		Model 4		Model 5	
		Contrast	P>chi2	Contrast	P>chi2	Contrast	P>chi2	Contrast	P>chi2	Contrast	P>chi2
Non-empirical	1990	0.05		0.04		0.07		0.10		-0.04	
	2009	0.13	*	0.16	**	0.17	**	0.17	**	0	
Qualitative	1990	0.15	***	0.17	***	0.14	**	0.13	**	0.08	
	2009	0.31	***	0.27	***	0.28	***	0.28	***	0.12	
Quantitative	1990	-0.21	***	-0.21	***	-0.22	***	-0.23	***	-0.04	
	2009	-0.44	***	-0.43	***	-0.45	***	-0.44	***	-0.11	*

* p<0.05. ** p<0.01. *** p<0.001

Model 1: Type=National*Year (linear) + Single authorship

Model 2: Model 1 + Gender

Model 3: Model 2 + Education

Model 4: Model 3 + Non-university + non-native/non-Nordic

Model 5: Model 4 + Standard or advanced quantitative method

Table 3. Average marginal effects for independent variables in Models 4 and 5.

	Model 4			Model 5		
	Theor.	Qual.	Quant.	Theor.	Qual.	Quant.
Single author	0.26 ***	0.02	-0.28 ***	0.20 ***	0.00	-0.19 ***
All female	-0.16 ***	0.25 ***	-0.09 **	-0.18 ***	0.22 ***	-0.05 *
Mixed gender	-0.16	0.08	0.08	-0.12	0.11	0.01
All non-PhD	-0.12 ***	0.07 *	0.05	-0.08 *	0.09 **	-0.01
Mixed educ.	-0.01	0.08	-0.07	-0.03	0.09	-0.05
Non-university	-0.14 ***	0.05	0.10 *	-0.11 **	0.07	0.04
Non-nat./non-Nordic	0.09 *	-0.06	-0.03	0.08 *	-0.05	-0.03
Standard or adv. quant.				-0.51 ***	-0.32 ***	0.82 ***

*p<0.05. **p<0.01. ***p<0.001

Omitted effects: Year (linear), type of journal.

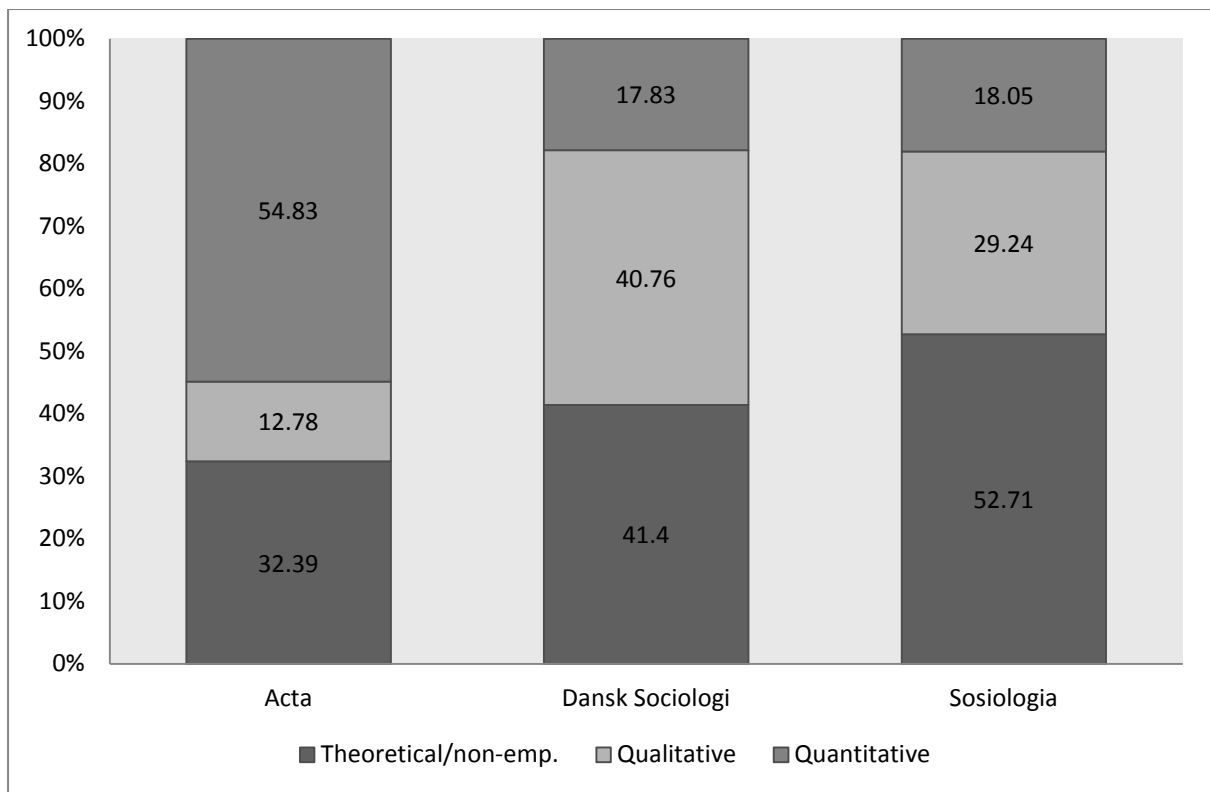
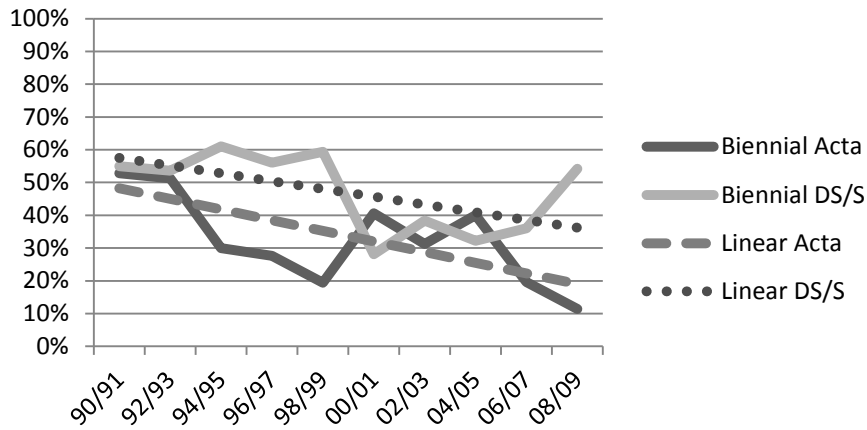
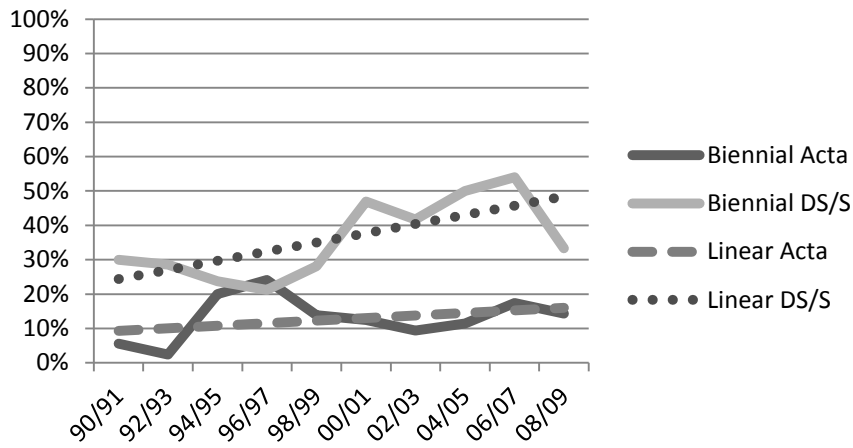


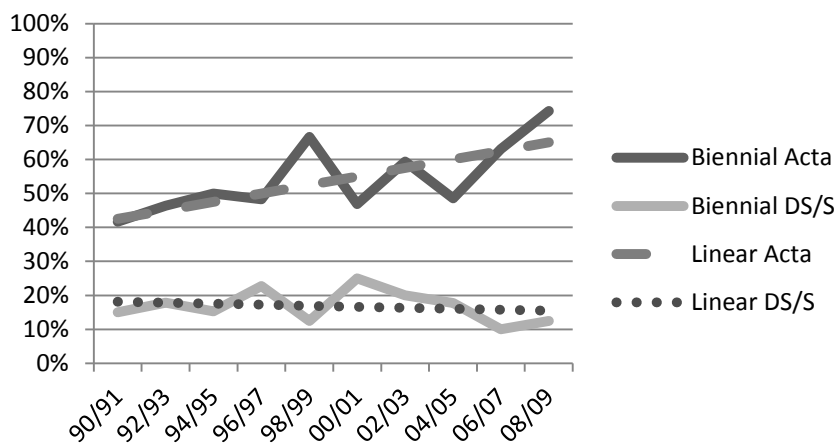
Figure 1. Proportions of different article types 1990-2009.



a) Theoretical/non-empirical



b) Qualitative



c) Quantitative

Figure 2. Proportions of different article categories in three journals. Biennial and linear trends.