

# METHODS BRIEFING 24

## The Isonymic Analysis of Historical Data: Irish Migrants in Britain, 1851-1901

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### Background

Birthplace is seldom specified for Irish-born people in nineteenth-century censuses of England, the usual attribution being simply 'Ireland'. Historians' hypotheses about the origins and movement of the Irish in Britain are therefore framed in the context of an inadequate source.

As a consequence of the weaknesses of nineteenth century sources for the history of Irish migration to and within Britain, there are uncertainties relating to the provenance of Irish immigrants, the pattern of Irish migration and settlement within Britain, and the sectarian composition of Irish populations.

This problem was seen as an opportunity to introduce and apply isonymy – a quantitative technique based on the distribution and frequency of surnames – to the analysis of a substantive research question generated within the discipline of history. Our objectives were to elucidate (1) the provenance, (2) the settlement history, and (3) the structure of religious/ethnic diversity of Irish populations in Britain by isonymy.

### Methods

The principal analytical method was Random Isonymy, a measure of similarity between two populations based on a model of genetic relationship, i.e. the proportion of

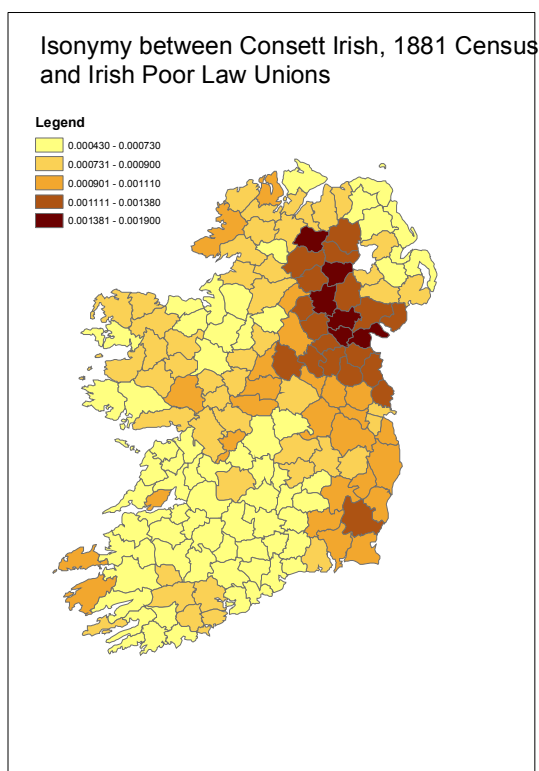
genes held in common. When several populations are compared, the resulting matrix of coefficients are visualized by multi-dimensional scaling (MDS) or GIS mapping to ease interpretation of results. The GIS of Irish Poor Law Unions was generously supplied by Ian Gregory (see Methods Briefing 1). Of itself, isonymy conveys information about relationship, not about migration. The latter is an interpretation based on the fact that Irish-born in England came from Ireland. The inference of migration origin is probabilistic and applies to populations rather than individuals. MS Windows-based software to calculate Random Isonymy and other isonymy measures was produced as part of the project, and is freely available from Malcolm Smith.

### Data

The source of nineteenth century surname distributions in Ireland was the Index to Griffith's Valuation, a listing of householders compiled for taxation purposes in mid-century, and often used by historians and genealogists as a "census substitute", the census enumerators' books of Irish nineteenth century censuses having all been destroyed. The principal source for England and Wales was the enumerators' books of the 1881 census.



**Figure 2. Comparison of Consett Irish, with population of Ireland.**



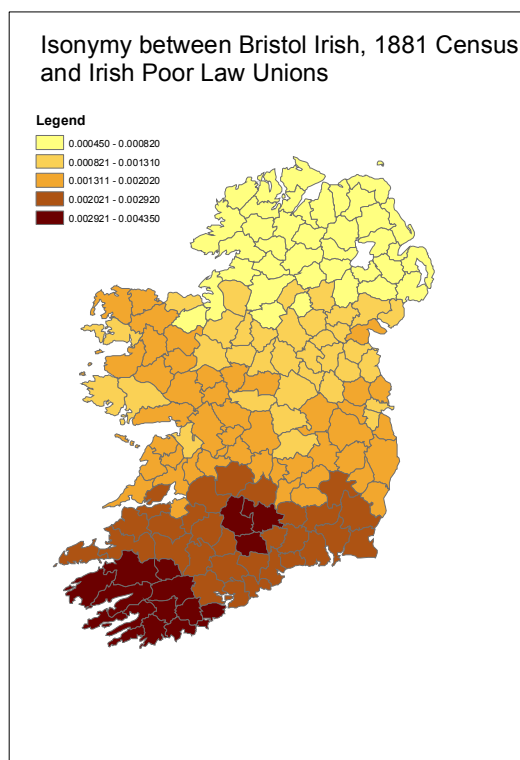
Notable analyses include places where census evidence of Irish provenance is virtually absent. One such is Cleator Moor, a Cumbrian ironstone mining settlement extensively studied by MacRaild. Isonymy suggests that in 1851 the Cleator Moor Irish population had a broadly based origin in Ulster, but that this transient population was later replaced by a more persistent settlement from southeast Ireland.

In summary, this part of the study has successfully used isonymy to suggest provenance of nineteenth-century Irish populations in Britain.

### Settlement History

We made several predictions about the surname structure of Irish migrant groups and the English “host” populations under different regimes of migration and settlement and tested them by isonymy. The two simplest propositions – that English populations fit a model based on geographical distance, reflecting earlier settlement, and that Irish settlements from diverse Irish origins have low isonymic relationships – were readily substantiated. The pattern of Irish migration within Britain, however, appears to have been insufficiently structured to allow more subtle distinctions to be detected by isonymy. We recognised the importance of detecting second- and later-generations of Irish descent in understanding the evolution of Irish communities through time, and we have developed a method based on a name-corpus of Irish (patrilineal) descent, which offers an insight into this topic, and has also revealed interesting cultural and demographic differences between contemporaneous first- and second-generation Irish, such as in naming, household structure and employment.

**Figure 3. Comparison of Bristol Irish with the population of Ireland.**



## Sectarian segregation

The sectarian residential segregation of Belfast is well-known, and at the 1901 census the pattern can be easily mapped, or quantified by segregation statistics. We used isonymy to see whether names were associated with sectarian identity. If this could be demonstrated in Belfast, where the sectarian segregation of the population was well-attested, then the method could be used to identify the ‘isonymic footprint’ of segregated populations elsewhere, even in the absence of the primary evidence of religious affiliation (e.g. in English census data).

Analysis by isonymy of electoral divisions within Belfast at the 1901 census showed a profound correlation not only of surnames but also of forenames with religious denomination. This is a notable finding and contributes to a continuing debate about naming and sectarian identity. This analysis continues with a search for sectarian segregation in the Tyneside districts of Wallsend, Jarrow and Hebburn. Historical accounts suggest a segregated settlement with, typically, (skilled) Protestant workers in shipyards and Catholic labour in manufacturing industries such as local chemical works. This analysis has the potential to be extended to the nineteenth-century Irish population of Scotland, where sectarian division has been long recognised.

## Summary

Our research on provenance has been very successful, contributing to the solution of a research question and offering the prospect of further application. In the research on movement and settlement history isonymy has reflected obvious aspects of population structure but has

not illuminated more subtle variations. The research on sectarian structure has convincingly shown that the sectarian structure of Belfast is strongly reflected in the distribution of both surnames and forenames, and research continues on the identification of Irish sectarian settlement in England.

As well as answering the substantive research question, the methods employed in this study stand as an exemplar of the utility of isonymy as an independent tool for revealing the demographic structure of populations. We advocate isonymy not as an alternative to traditional historical or geographical methods, but as an additional tool to use in conjunction with conventional socio-cultural and demographic analyses.

## Key Publications

Malcolm T. Smith and Donald M. MacRaild, “The Irish in the mining industry in England and Wales in the 19<sup>th</sup> Century: A statistical appraisal”. Submitted to *Economic History Review*.

Malcolm T. Smith and Donald M. MacRaild “Selection against Irish Catholic forenames among descendents of nineteenth century Irish migrants to Britain”. Submitted to *Current Anthropology*.

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