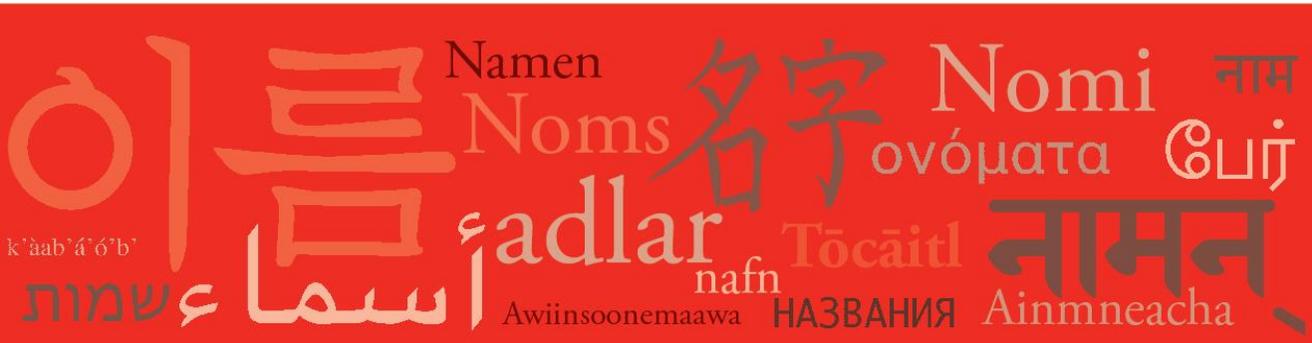


# Names | A Journal of Onomastics



## Name Transmission Relationships in England (1838–2014)

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## Name Transmission Relationships in England (1838-2014)

**Abstract**

Baby names are often used to model the mechanisms of cultural evolution, as they are not given arbitrarily but on the basis of their perceived associations. Datasets showing birth registrations over time track changes in these perceptions, and thereby in tastes and ideas. Using birth registration data, numerous transmission biases have been identified that predispose someone to favour one cultural variant (i.e., a name) over another. While this research is facilitated by the annual release of many countries' birth registration data, these datasets are typically limited to yearly counts of forenames. To gain insight into name transmission biases not detectable from birth registration data alone, this study parses the birth, marriage, and death registers of England to generate a dataset of 690,603 name transmission relationships, given between 1838 and 2014, and linking the names of both parents and child. The data reveal long-term trends in matro- and patronymic naming, once common practices affecting approximately 15% of male and 8% of female records per year throughout the 19<sup>th</sup> century. These practices declined precipitously throughout the 20<sup>th</sup> century, in the aftermath of the First World War. These results highlight the importance of contextualising birth registration data when identifying naming trends.

**Keywords:** anthroponym, patronym, matronym, first name, given name, England

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**Introduction**

Names simultaneously classify a person both as an individual and as a product and reflection of society. By acting both as templates for the development of self-image (Seeman 1972) and as identity stereotypes (Dinur, Beit-Hallahmi, and Hofman 1996), names have complex intertwined associations with gender (Mehrabian 2001; Mehrabian and Valdez 1990; Obasi et al. 2019), ethnicity (Edwards and Caballero 2008), class (Lindsay and Dempsey 2017), and socioeconomic position (Bloothoof and Onland 2011), circumscribing the name-bearer into particular social roles (Betiang 2020; Pilcher 2017) and affecting, among others, perceptions of race (Gaddis 2017b, 2017a), faith (Madziva 2018), academic ability (Harari and McDavid 1973), employability (Pascual et al. 2015), professional competence (Bruning et al. 2000), and moral character (Mehrabian 1997). In light of this, an individual's choice of baby name is therefore, consciously or otherwise, influenced by the choices and social identities of others, to the extent that collective patterns of name use are apparent over time.

These patterns speak to broader questions of cultural evolution. How are cultural variants—styles, ideas, practices, and tastes—transmitted (copied between people), and what mechanisms govern their success? In the cross-disciplinary enquiry into this question, concepts from evolutionary biology have been employed to explain aspects of cultural evolution. Relative to a neutral model of random copying (the cultural analogue of genetic drift [Mesoudi and Lycett 2009]), transmission biases may be identified that predispose someone to favour one cultural variant (such as a name) over another. In general, biases at the level of the individual variant scale up to generate population-level patterns and may be inferred from large-scale datasets that chart the usage of cultural variants over time (Youngblood 2019).

Facilitating research into the mechanisms of cultural transmission, many countries make an annual public release of their birth name registration data.<sup>1</sup> This typically takes the form of a count of forenames registered per year, often with rarer names redacted. Among the largest publicly-accessible name registration datasets is that of the US Social Security Administration (SSA) which contains first name usage per year, from 1880 onwards, of a complete survey of all US Americans with social security numbers. This is a valuable onomastic resource (Nuessel 2017) as well as an exemplar dataset for exploring the macroscopic factors affecting cultural (name) transmission. Many studies have used this dataset to identify factors as diverse as pro-novelty bias (innovative names can quickly become popular, as fads (Acerbi, Ghirlanda, and Enquist 2012), a preference for familiarity (names are more likely to become popular when similar names have also been popular) (Berger et al. 2012), adoption speed (names which rise quickly in popularity fall quickly in popularity too) (Berger and Le Mens 2009), random drift (when people copy names from each other at random, then repeated sampling of a population over time would drive some to higher frequencies and cause others to be lost) (Hahn and Bentley 2003; Bentley, Hahn, and Shennan 2004; Bentley et al. 2007), and the contemporary fragmentation of once-monolithic media (rather than copying names from a centralised popularising source, people may solicit perspectives from a multitude, allowing drift to occur more pervasively) (Bentley and Ormerod 2012). Stable

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regional substructures have also been found within the overall population-level dataset (Pomorski et al. 2016) and interpreted to represent distinct communities and geopolitical districts, name use within which is subject to its own mechanisms of change. For example, popular names were found to be less commonly given in frontier regions (considered to be U.S. states on the western rather than eastern coast), consistent with the hypothesis that voluntary settlement there reflects independent (less conformist) values (Varnum and Kitayama 2010).

Given the number of studies drawing on one resource, it is important to re-iterate that the US SSA dataset—as with many name registration datasets—only contains information regarding what has been copied (i.e., the data are a count of baby names), not who did the copying (i.e., the names of those who named the baby). Additional insight into the factors affecting cultural transmission would require a dataset of transmission relationships. This would associate the name of a child with the names of the parents.

The aim of this study was to establish a dataset of name transmission relationships as both a novel onomastic resource and a means of exploring name transmission biases not detectable from birth registration data alone. The dataset was assembled using the ‘local BMD’ (births, marriages, and deaths) registers of England, as described in previous publications (Bush 2019, 2020; Bush, Powell-Smith, & Freeman 2018) and expanded upon here. Uniquely, the data chart long-term trends in both matro- and patronymic naming: the naming of a child for their mother or father, respectively. In societies with patro- and matronymic naming conventions, parents may selectively keep forenames within a family, for instance, to strengthen kinship ties or preserve a link to the past (Garðarsdóttir 1999). For the purpose of this study, matro- and patronymic names are conservatively defined as first names identical to the first names of the mother or father, respectively. This is a pragmatic definition to facilitate automated record parsing, and substantively differs from ‘patronymic’ in the broader sense of ‘component of one’s personal name derived from the personal name of a male ancestor’, such as the Spanish surname *Rodríguez* ‘son of Rodrigo’. The use of matro- and patronyms in this broader (and arguably, proper) sense are not considered further here. The limitations of this conservative definition are discussed in more detail below.

From 1839 to 1900, the data suggest that in England on average approximately 15% of male births per year were given the same forename as their father, and 8% of female births the same forename as their mother. This proportion of births with the same first name as a parent was broadly consistent year-on-year throughout the 19<sup>th</sup> century records. Towards, and into, the early 20<sup>th</sup> century, however, there was a brief but pronounced upward trend in this proportion, but only for males. From around the year 1915, instances of first name sharing declined precipitously, consistent with social upheaval surrounding the First World War. Towards the present day, neither male nor female first name sharing could be identified beyond a negligible proportion of births.

These findings complement previous research on the rapid change in cultural norms around naming in the 20<sup>th</sup> century (as observed, for example, in US American (Twenge, Abebe, and Campbell 2010; He 2020), German (Gerhards and Hackenbroch 2000), Turkish (Sakalli 2016), Chinese (Cai et al. 2018; Hamamura and Xu 2015; Bao et al. 2021) and Japanese (Ogihara et al. 2015; Ogihara 2022, 2021) datasets). More broadly, however, they are relevant to studies using name data to model cultural evolution: matro- and patronymic naming practices have been strong transmission biases affecting the composition of English birth registration datasets. However, as these datasets are disseminated without the associated parental names, these biases are not visible in them.

## Materials and Methods

### *Source of Name Data*

Birth, marriage and death (BMD) records—the collection of which began in England in 1837—were obtained from the ‘UK local BMD’ project ([www.ukbmd.org.uk/local](http://www.ukbmd.org.uk/local)), a volunteer-run effort to transcribe them for digital preservation.<sup>2</sup> Birth and marriage records were downloaded on 25<sup>th</sup> August 2021 from 6 of the 11 participating regions: the city of Bath, and the counties of Cheshire, Lancashire, Shropshire, Staffordshire, and Yorkshire (data from the 5 remaining regions was excluded because it did not allow birth and marriage records to be cross-referenced; discussed further below). The data is non-uniform both in terms of the number of records per region and the depth of coverage over time. Nevertheless, the records are assumed to be unbiased, as they were transcribed from birth and marriage registers filled on an ad hoc basis.

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The available fields for each birth record were the first name, middle name(s) and surname, mother's pre-marital surname (where applicable), year of birth, sub-district of the region in which the birth was registered, and identification number. The available fields for each marriage record were the first names, middle names and surnames of both parties, year of marriage, location of marriage, and identification number. While birth record identification numbers are unique (one record per number), multiple marriage records could share the same identification number. This is because if one member of a couple had a previous surname, a parallel record was created for it too (i.e., if X marries Y but was previously married to Z, there will be duplicate marriage records with the same identification number: of X with Y, and X with Z).

Typographical errors were corrected, uninformative entries excluded (such as births registered with only an initial) and, where possible, abbreviations expanded (such as *Wm* for *William*), as previously described (Bush, Powell-Smith, & Freeman 2018). Restricting analysis to records made in the same region (discussed below), in total 6,030,051 marriage records were cross-referenced with 1,881,721 birth records.

### *Inferring Gender of First Names*

The UK local BMD records do not reference sex or gender. We inferred the gender of each first name by reference to the US SSA dataset, as in (West et al. 2013). This dataset, which covers the period 1880 to 2019, contains first name usage per year, and an associated gender, of all US Americans with a social security number (<https://www.ssa.gov/OACT/babynames/names.zip>, accessed 11<sup>th</sup> March 2021). We assume the gender of a name if it can be assigned to a single gender in >95% of cases, noting that this dataset acknowledges only two genders. Overall, this dataset contained 100,364 names, of which 33,874 were considered male (33.75%), 60,174 female (59.96%) and 6316 unisex (6.29%).

### *Cross-Referencing Birth and Marriage Records to Create a Dataset of Name Transmission Relationships*

To create a dataset of name transmission relationships (i.e., one linking the names of parents with child), birth and marriage records were cross-referenced to identify families, as previously described (Bush 2019). As the majority of records are historical, this method required the pragmatic assumption of a traditional practice: that the mother would be married prior to giving birth, and that the birth would be registered with the surname of the father (as discussed below, this practice is far less common in contemporary records, limiting the number of name transmission relationships that could be reconstructed). To minimize error, we also required that the birth and marriage were registered in the same location. However, as noted above, the birth records contain the field 'sub-district' and the marriage records 'location', with the two not always comparable. We restricted analysis to those birth and marriage records with one of 16 common locations, reconciling several disparities by applying a standard nomenclature (for instance, allowing birth records in 'Blackburn East' to be cross-referenced with marriage records in 'Blackburn').

Overall, we required a unique marriage record predating the birth by no greater than 5 years (i.e., that there was only one marriage record in both that timeframe and location containing the surnames of both parents) (note also that because we require one, and only one, marriage record, we exclude people who had married more than once as these would produce duplicate records). The mother's pre-marital surname, obtained from the birth record, was then cross-referenced with the two surnames listed on the marriage record. We required that the two surnames differed, and that one of the first names could be gendered as male and the other as female. Note that this excludes from consideration those names which were considered unisex (such as *Charlie*, *Lee*, and *Riley*), and those names present in the BMD but not the SSA dataset (for which no gender was available). Given the SSA dataset redacts rare names (those registered to < 5 people in a given year), this includes those which on a case-by-case basis could be readily gendered (such as the female names *Jessalina* and *Merantha*), an impractical task to perform manually at scale.

Finally, we restricted analysis to a maximum of 3 possible births in the 5 years following marriage. We did so because we were identifying births on the basis of an incomplete set of marriage records, the UK BMD not being a complete population sample. If there were multiple marriages of surname X and surname Y but the records did not contain all of them, we could find multiple birth records with the mother's pre-marital surname X and father's surname Y. If we were to take all of these birth records at face value, we could inadvertently assign an implausibly high number of children to one family. We therefore discarded families to which > 3 birth records could be assigned.

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For families with multiple children, we also required that each birth was registered in a different year. While this excludes twins (and other multiple births), these are relatively rare occurrences—we considered that multiple birth records per year were more likely to mean we were missing a marriage record and that the births were in reality distributed among multiple families.

Taken together, these are conservative criteria that allow the reasonable construction of family relationships from the data. The final dataset comprises 690,603 parent/child name transmission relationships, and represents data from 473,943 families (of which 295,933 families had one child, 139,360 families had two, and 38,650 families had three).<sup>3</sup> An abbreviated version of this dataset, restricted to the 19<sup>th</sup> century, is available at [www.github.com/sjbush/name\\_transmission](http://www.github.com/sjbush/name_transmission). This subset represents 154,518 name transmission relationships (22.37% of the total), of which 75,416 of the children's names were female, 77,284 male, and the remaining 1818 (1.17%) unisex or unknown. The latter category includes very rare names such as *Shubeiel* (possibly a variant of the Biblical name *Shebuel*), what resemble transferred uses of a surname to the first name position (such as *Duckworth Sharples*) and possible typographical errors (such as *Bepsey Tickle*).

### *Regions Excluded from BMD Cross-referencing*

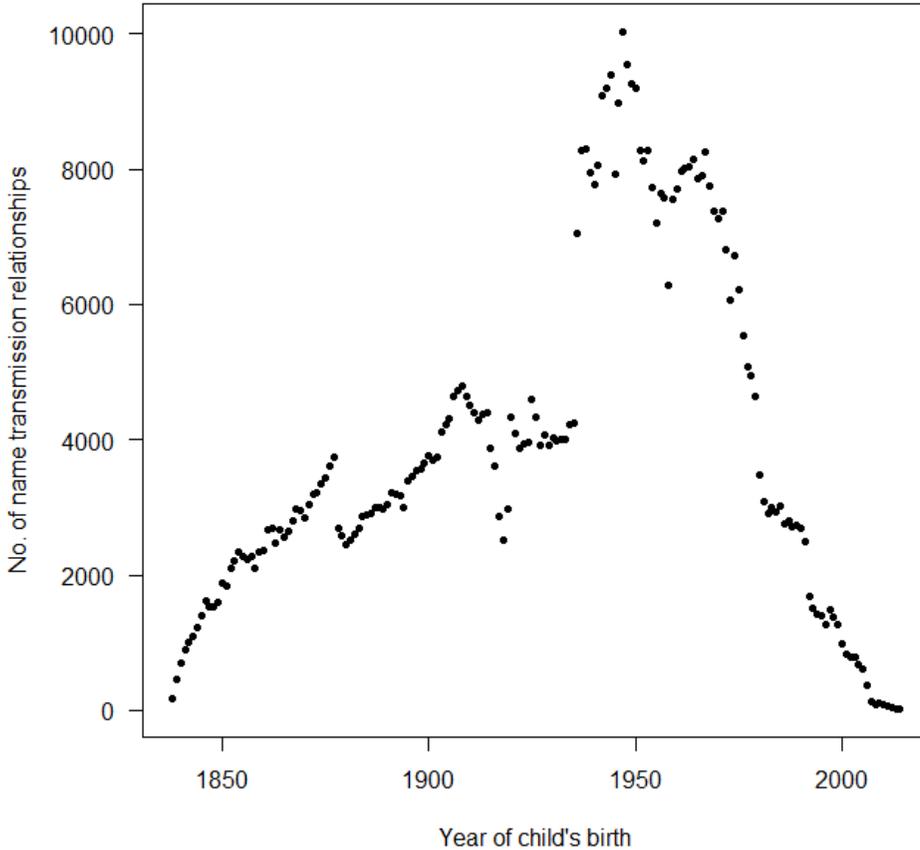
Data from 5 of the 11 regions participating in the UK local BMD were excluded as it was impossible to cross-reference the birth and marriage registers. Records from Berkshire and the West Midlands could not be used as the birth records did not contain the mother's pre-marital surname. Records from Cumbria and Wiltshire could not be used as the registration location for each marriage record was 'Cumbria Certificate Services' and 'History Centre', respectively, both impossible to cross-reference with birth locations. Records from North Wales could not be used as there was no overlap between the places in which births were registered and the places in which marriages were registered.

## Results

### *Trends in Patro- and Matronymic Naming in England*

A dataset of 690,603 parent-to-child name transmission relationships, spanning 177 years, from 1838 to 2014, was obtained by parsing 6,030,051 marriage and 1,881,721 birth records from England. The number of name transmission relationships per year is illustrated in Figure 1. The distribution takes the form of a series of discontinuous peaks, consistent with the birth and marriage records being independently transcribed on an *ad hoc* basis—'local BMD project' volunteers would transcribe a short range of years at a time—and only overlapping in part.

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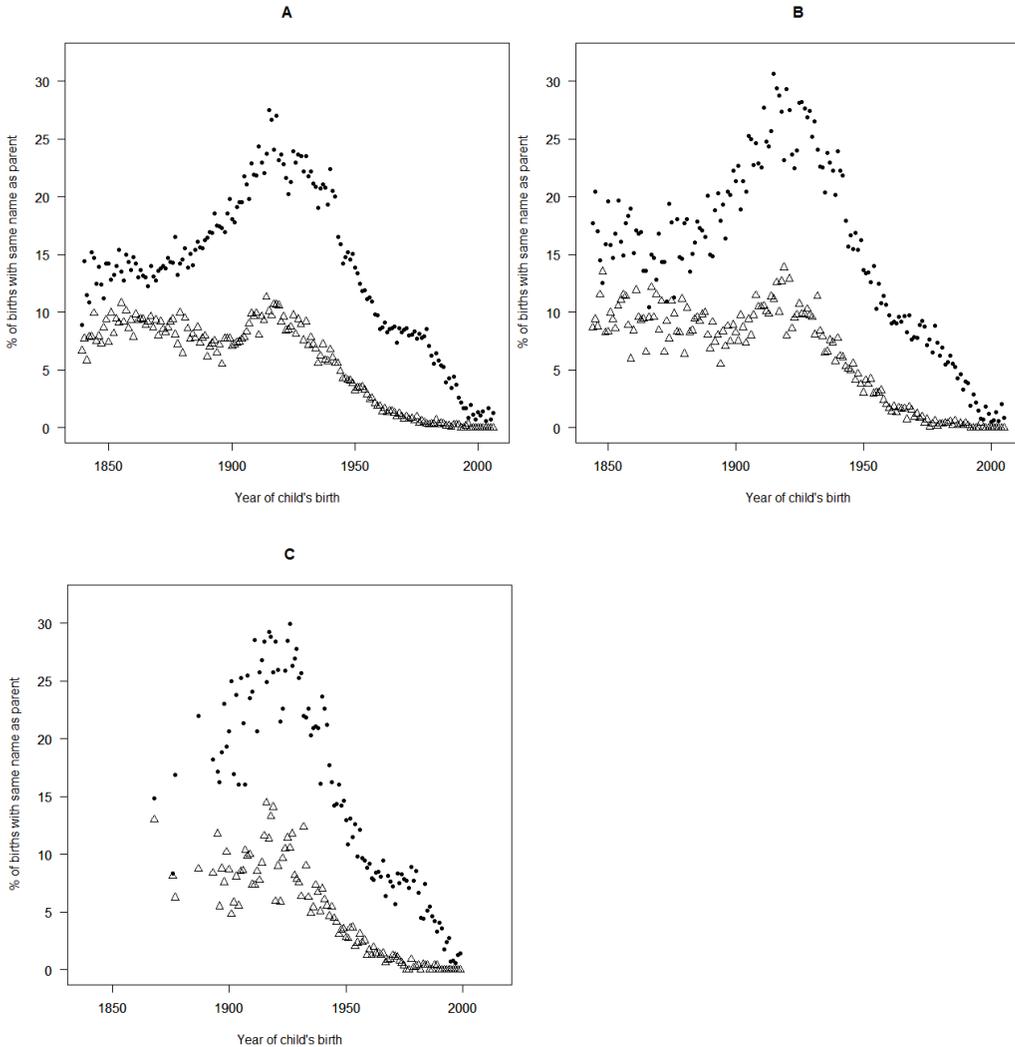
**Figure 1:** Number of Name Transmission Relationships Per Year.  
*Note:* Raw data for this figure is available at [www.github.com/sjbush/name\\_transmission](http://www.github.com/sjbush/name_transmission).

The purpose of this dataset was to facilitate enquiry into name transmission biases not identifiable in birth registration data alone. As an example, we examined trends in matro- and patronymic naming practices: the explicit naming of a child for their parent. To reduce noise, we restricted analysis to years with > 100 parent-to-son and > 100 parent-to-daughter relationships (i.e., to a set of 658,629 relationships identified from 1839 to 2006 and representing data from 457,804 families). The prevalence of patro- and matronymic naming across this time period is illustrated in Figure 2A. Three trends are especially evident. Firstly, and most obviously, in any given year proportionately more boys shared their forename with their father than girls with their mother (consistent with a patriarchal tradition in which men are “more apt to bear kin names” as they are the “symbolic carriers of the temporal continuity of the family” (Rossi 1965)). For each year in the 19<sup>th</sup> century for which we have data (1839–1899), the mean number of records showing patro- and matronymic naming were 14.48% and 8.31%, respectively. Secondly, towards the end of the 19<sup>th</sup> century, there was an increase in the number of patronymic—but not matronymic—birth records. Finally, there was a rapid and continuous decline in both practices throughout the 20<sup>th</sup> century, from peaks of 27.47% (male) and 11.31% (female) of birth records in the years 1915 and 1914, respectively. By the 1960s, patronyms represented < 10% of registered male births and < 2% of registered female births and by the present day no more than a negligible proportion of births (but note

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that due to the way the dataset was constructed, the data is unlikely to be accurate about the contemporary prevalence of matro- and patronymic naming; this is discussed further below). Overall, 49,644 children (7.19%) had the same name as their father and 16,764 children (2.43%) the same name as their mother. Within the data set, the most commonly shared first names recorded at far higher levels than any other were *John* (9505 records, 19.14% of the total male names) and *Mary* (4284 records, 25.55% of the total female names).



**Figure 2:** Proportion of Births Per Year with First Names Identical to The Father (Filled Circles) or Mother (Outline Triangles).

*Note:* Data are restricted to years with > 100 male and > 100 female births and to families where (a) any number of, or (b)  $\leq 2$  marriages (in the entire dataset) were registered with the surnames of both parents. Subfigure (c) further restricts data to families with  $\leq 2$  marriages registered with the surnames of both parents, and only one child. Raw data for this figure is available at [www.github.com/sjbush/name\\_transmission](http://www.github.com/sjbush/name_transmission).

## Name Transmission Relationships in England (1838-2014)

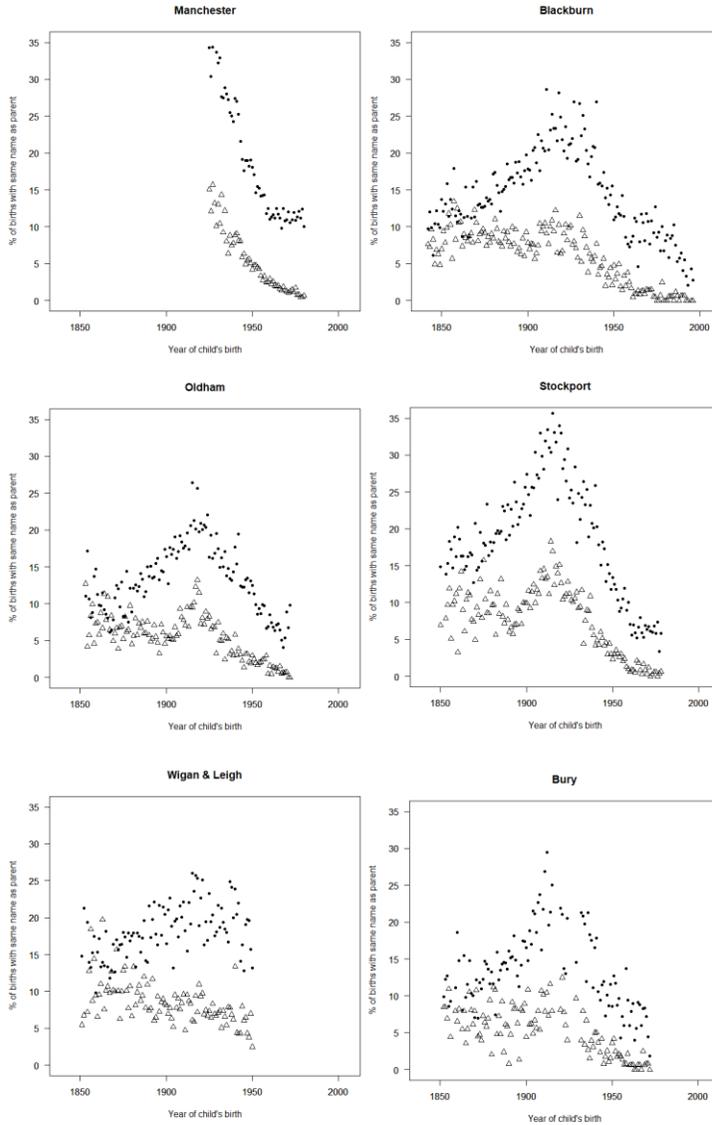
To explore these trends further, it is important to recall that this dataset was constructed by cross-referencing two incomplete (but assumed unbiased) sets of records. Although absences from the birth records would, by definition, not affect our dataset, absences from the marriage record may have introduced error. To control for the incompleteness of the marriage record, we calculated the number of marriage records seen—across the entire BMD dataset—with each pair of surnames. We reasoned that the more marriages there were per pair of surnames, the more likely we were to have made an error in assigning birth records to any given marriage record. For example, across the entire dataset, there were 4053 marriages (0.07% of the total) registered with the common surnames *Jones* and *Smith*. A child with the surname *Jones* whose birth record gave the mother's pre-marital surname *Smith* could therefore be assigned to one of a large number of options. While we greatly restricted those options by requiring that a marriage occurred in the same area as the birth and no more than 5 years prior to it, we also assumed that *Jones/Smith* marriage records (as with all others) were equally distributed in time and space. Consequently, the greater the total number of *Jones/Smith* marriages, the more likely we were to have missed one in the vicinity of a given birth record.

To mitigate this possibility, we repeated the analysis with data restricted to families where  $\leq 2$  marriages were registered with the surnames of both parents ( $n = 212,762$  relationships, representing data from 152,987 families), producing quantitatively similar results (see Figure 2B, noting that the dataset is 32% the size of that shown in Figure 2A). This conservative threshold restricts birth and marriage records to those containing only uncommon surnames, greatly reducing the possibility of error. It was not possible to employ more conservative criteria, restricting analysis only to families where one marriage was registered with the surnames of both parents, as there were too few datapoints per year for meaningful analysis (the dataset would be reduced to  $n = 13,596$  relationships (from 9733 families) (i.e., on average  $< 100$  a year).

In the 19<sup>th</sup> century, a time of high infant mortality, it was also not uncommon for parents of a deceased child to re-use the name of that child for subsequent offspring (Bush 2019), a practical consequence of which is that of the 178,010 families in the original dataset with multiple children, 107 families (0.06%) gave more than one child the same name as the mother and 298 families (0.17%) gave more than one child the same name as the father. For example, the data show the marriage of *Emma Fisher* and *Edwin Russell* in 1842, with two sons, *Edwin Emmanuel* and *Edwin Frederick*, born in 1843 and 1847, respectively. This is family number 188 in the data set. The former likely died in infancy (there is a death record for *Edwin Emanuel*—with one “m”—in 1844) raising questions about the interpretation of his namesake. We cannot definitively conclude that *Edwin Frederick* was the namesake of his older brother rather than his father, although perhaps the latter is more plausible—their daughter, *Emma Marion*, also shares her forename with her mother. *Edwin Emmanuel* contains a match to the name of both parents too.<sup>4</sup> To control for the effect name re-use among siblings may have, we further restricted the data to families with only one child and where  $\leq 2$  marriages were registered with the surnames of both parents ( $n = 90,113$  relationships), although the same trends were seen (Figure 2C).

An additional source of heterogeneity in the data may be regional variation. Approximately 60% of name transmission relationships were obtained from 4 of the 16 locations analysed, all of which were in Lancashire: the city of Manchester and the nearby towns of Blackburn, Oldham, and Stockport. Nevertheless, the trends in matro- and patronymic naming remained even when restricting data to individual locations, including those outside Lancashire (Figure 3), although we note that record coverage was limited by time as well as by space and that accordingly, the full temporal range was not available in all locations. An assumption of this study is that this does not meaningfully alter the observed trends.

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**Figure 3:** Proportion of Births Per Year with First Names Shared with Their Father (Filled Circles) or Mother (Outline Triangles), in Specific Locations.

*Note:* Data are restricted to years with > 100 male and > 100 female births, to families where any number of marriages (in the entire dataset) were registered with the surnames of both parents, and to the six locations containing the greatest proportion of records. Raw data for this figure is available at [www.github.com/sjbush/name\\_transmission](http://www.github.com/sjbush/name_transmission).

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## Discussion

This study parses the birth and marriage records of England to create a novel dataset of name transmission relationships, explicitly linking the name of a child with their parents. While this dataset offers a degree of insight into patterns of matro- and patronymic naming, it was by necessity constructed using reasonably conservative criteria and so has several limitations.

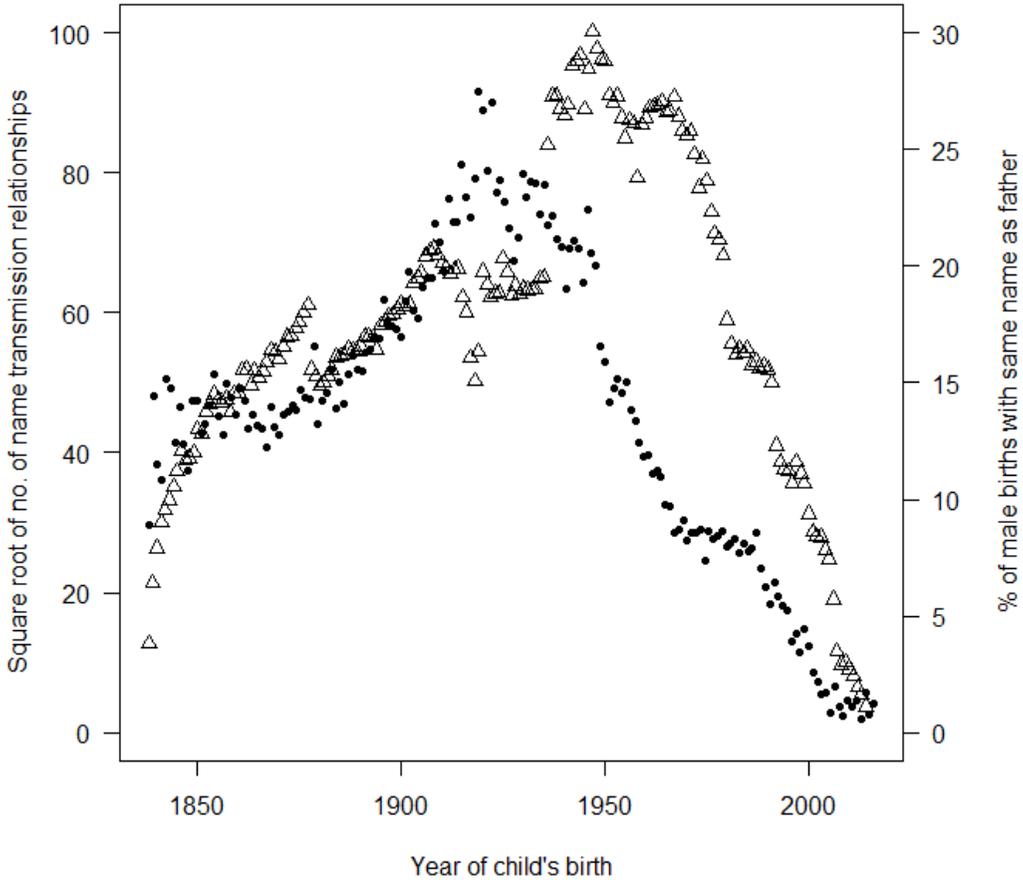
Foremost of these is that we assumed a historical custom: that the parents would be married prior to childbirth and that the child would have the surname of the father. This was a pragmatic assumption, necessary to cross-reference the marriage records with the birth records (which contain the pre-marital surname of the mother—this being explicitly stated—and the surname of the child, which is only assumed to be that of the father). We also required that the birth was registered in the same place as the marriage. It is increasingly likely with contemporary records that the parents would not be married prior to registering a birth<sup>5</sup> (or if they were, that the marriage was registered in a different location), that there would be no name change upon marriage (Goldin and Shim 2004; Kopelman et al. 2009)<sup>6</sup>, and/or that the child would have the surname of the mother or a combined (double-barrelled) surname. Consequently, the data can offer only limited insight into the contemporary prevalence of English matro- and patronymic naming practices.

A further limitation is the conservative definition of matro- and patronyms as first name matches between parents and children. There is an assumption intrinsic to this definition: that the match implies the child was named for the parent, and the parent alone. This is not necessarily true—the name may be one that is ‘in the family’ and the namesake not the parent directly but an older generation instead (a grandparent or other ancestor). Alternatively, the parent (or other relative) may not be a namesake at all: the name may simply be a traditional one, popular across many generations. Another possibility is that both parent and child may be named after someone prominent but unrelated, such as a religious figure (consistent with the abundance of records named *Mary* and *John*). These possibilities could not be disambiguated with the BMD dataset. In addition, it’s also important to note who is not represented in the data. The local BMD dataset is neither a complete population sample and although we assume it is unbiased, this assumption is questionable—in drawing on official records, the BMD dataset may not be a viable means of exploring the onomastic history of marginalised populations, as they are disproportionately expected to be excluded from their collection.

Nevertheless, these results raise several questions regarding the history of matro- and patronymic naming: what led to the increase in patronymic (but not matronymic) naming towards the end of the 19<sup>th</sup> century, and what underpins its 20<sup>th</sup> century decline? There is little ambiguity as to when the practice peaked: with the onset of the First World War. It is beyond the scope of this article to sketch the myriad cultural and social changes brought about in the aftermath other than to note that as with many traditional practices, it appears first name sharing would have affirmed a generational continuity that, interrupted by slaughter, was not to recover. (Although it may, of course, be coincidental that giving the first name of the parent to a child declined around this time).

It is not clear what underlies the late-19<sup>th</sup> century rise in patronyms although the trend appears robust to several controls (including for number of marriages and family size, both proxies for error) rather than an artefact of dataset construction. If overlaying data from Figures 1 and 2A, we can also see that the proportion of boys with the same forename as their father only partly concords with the total number of birth records per year and that, consequently, biased sampling is not a convincing explanation for the trend (Figure 4). Most notably, in the first half of the 19<sup>th</sup> century, patronymic names were being registered at a consistent proportion (approx. 15% of records per year) despite a year-on-year increase in the total number of records. Conversely, patronymic names peak sharply and decline in the early 20<sup>th</sup> century, despite a broadly consistent number of birth records per year in this period (approximately 4000 per year for the years 1910–1920). It is similarly unclear why Figure 2 shows a short ‘plateau’ in the 1960s, where the persistent decline in popularity of patronyms is briefly arrested.

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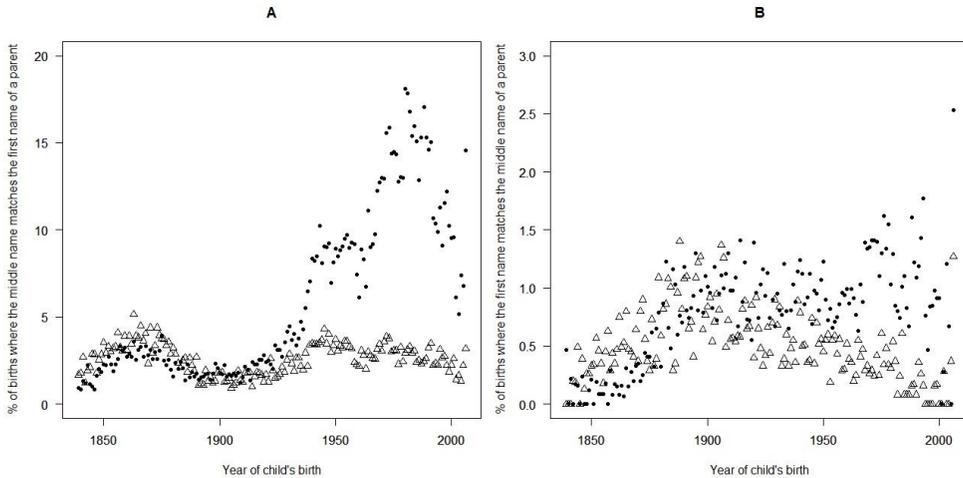
**Figure 4:** The Proportion of Boys with the Same Forename as Their Father (Filled Circles) only Partly Concords with the Total Number of Birth Records Per Year (Outline Triangles).

*Note:* Raw data for this figure is available at [www.github.com/sjbush/name\\_transmission](http://www.github.com/sjbush/name_transmission).

For simplicity, matro- and patronyms have only been considered first name matches. Yet, there are other possibilities that fall within the scope of ‘naming like’ (if not for) a parent: for example, the child’s first name may be the same as the middle name of a parent, or their middle name the same as the first name of a parent. These options raise the question: has the decline in first name matches been accompanied by matches in another position? We can see in Figure 5A that from the 1950s onwards—when first name matches had declined to negligible levels—there was no discernible alteration to female middle names although, strikingly, the proportion of boys whose middle name matched the first name of their father had risen to average approximately 10%–15%, comparable to levels of patronymic naming in the 19<sup>th</sup> century (Figure 2). This suggests that towards the present day there has not necessarily been a change in the prevalence of the custom but in the practice. Assuming that names shared between a parent and child reflect a desire to ‘keep a name in

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the family', it appears in the present day this is more commonly accomplished covertly than overtly—the middle name position may carry the name, but the child in everyday life doesn't necessarily need to use it. (This stands in contrast to historical records which may only be distinguished by a middle name. For instance, in the data set, for family 317, a *William Henry Walter Brumby*, born in 1847, had the father *William Henry Brumby*. Another conclusion to be drawn from Figure 5A is what hasn't changed about the practice: it remains highly gendered, favouring the transmission of male names. Far fewer birth records showed a first name matching the middle name of a parent (Figure 5B) although in later 20<sup>th</sup> century records (from the 1950s onwards) a gender disparity can still be seen: proportionately more boys shared a name than girls.



**Figure 5:** Proportion of Births Per Year with (a) First Names Identical to the Middle Name of a Parent, and (b) Middle Names Identical to the First Name of a Parent.

*Note:* Data for the father is shown as filled circles and the mother as outline triangles. Raw data for this figure is available at [www.github.com/sjbush/name\\_transmission](http://www.github.com/sjbush/name_transmission). Note that when people had multiple middle names, matches between parent and child were counted equally regardless of which position the middle name was in.

While these trends merit further scrutiny (and may yet prove fallacious), it is important to re-iterate that the present study assembled its dataset programmatically, using several conservative thresholds to cross-reference two sets of records. It is not implausible that this conservative approach (which presumed a traditional marital custom and restricted records to one place) has artificially selected families more likely to espouse conservative behavioural norms. While this has likely increased the proportion of children with the same forename as their parents, it is unlikely to have altered the two general trends of a late 19<sup>th</sup> century rise (for male names) followed by swift 20<sup>th</sup> century decline (for names of both genders). Nevertheless, more nuanced insight into historical trends in matro- and patronymic naming would require an onomastic dataset that, where possible, has minimised the number of error-prone processing steps. An example presents itself in the form of family tombstones, where names and relationships are explicitly—and literally—set in stone. Assembling a name transmission dataset using data from cemeteries would be a fruitful direction for future research and could refine, or refute, the trends outlined here.

## Conclusion

Name transmission data may be usefully viewed as a tool for exploring the spread and decline of particular ideas: of how people think of themselves and others, and of what they value. Nevertheless, without contextualising this data with familial relationships, we would be unable to observe biases in name transmission which are contingent on that relationship. To overcome this limitation, this study assembled a conservative dataset of name transmission relationships by cross-referencing approximately two centuries of English birth and marriage records. Although primarily a novel onomastic resource, it also allows a general conclusion to be drawn. When using this dataset to chart trends in first name sharing between parents and

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children—once-prevalent phenomena in England largely abandoned in the 20<sup>th</sup> century—we can see that the values implied of certain naming conventions can be altered remarkably rapidly.

## Endnotes

<sup>1</sup> Baby names have been readily adopted as a unit of analysis for studying the mechanisms of cultural evolution: they are a variable which succinctly embody and distinctly reflect the consequence of cultural change. (Zelinsky 1970) proposed six criteria for such a variable. It should be accessible (i.e., easy to obtain), simple (easy to process), ubiquitous (throughout both the temporal and territorial range of the culture), durable (so that information about past conditions can be retrieved), pure (not materially affected by non-cultural factors), and sensitive. Baby names were considered “to meet quite admirably at least five of the criteria” with the latter criterion, sensitivity, harder to define (and test): it “must yield significant amounts of information about the essential nature of the culture.” For the purpose of the present study, it is taken as axiomatic that names carry cultural knowledge and offer insight into it.

<sup>2</sup> The website hosting the UK local BMD data, [www.ukbmd.org.uk](http://www.ukbmd.org.uk), is operated by Weston Technologies Ltd (Crewe, Cheshire, UK). This company is the owner or license-holder of the intellectual property constituting the BMD records. This data is used here pursuant to section 29A of the UK Copyright, Designs and Patents Act 1988, where a copyright exception permits copies to be made of lawfully accessible material in order to conduct text and data mining for non-commercial research.

<sup>3</sup> To safeguard privacy, the full dataset is not publicly available. It can be made available privately, on reasonable request, for non-commercial research purposes.

<sup>4</sup> I thank an anonymous reviewer for this observation.

<sup>5</sup> According to census data from the UK Office for National Statistics, in the year 2020, 16,090,122 people aged 16 and over had never married or entered a civil partnership, compared to 29,605,039 people aged 16 and over who were either married, in a civil partnership, divorced, or widowed (<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesby maritalstatusandlivingarrangementsengland>, 16<sup>th</sup> December 2021).

<sup>6</sup> Or no name change on marriage that could easily be parsed programmatically. Using the 2004 American Community Survey (considered a reasonable proxy of trends in England), (Gooding and Kreider 2010) quantified the extent to which ‘native-born married women’ of the US had ‘non-conventional surnames’ as 6%. Their definition of ‘non-conventional’ included keeping one’s own surname at marriage, hyphenated surnames and two surnames.

## Disclosure Statement

The author declares that there are no conflicting interests.

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