

Article

Constructing Masculinity through Genetic Legacies: Family Histories, Y-Chromosomes, and “Viking Identities”

Marc Scully 

Department of Psychology, Mary Immaculate College, South Circular Road, Limerick V94 VN26, Ireland; marc.scully@mic.ul.ie; Tel.: +353-61-774-781

Received: 16 November 2017; Accepted: 30 January 2018; Published: 9 February 2018

Abstract: The contemporary popularity of genetic genealogy has been accompanied by concerns about its potential reifying of identity. This has referred in particular to ethnicity, but also to gender, with fears that looking at the past through the lens of popular genetics reinforces patriarchal views of the family and traditional heteronormative understandings of masculinity and femininity. This study investigates whether such understandings are drawn upon by male participants in a population genetics study. Discursive analysis of 128 responses to a participant motivation survey and 18 follow-up interviews explores how participants construct masculinity when discussing genetics and their own family history. It is argued that while there is some evidence for the “patriarchal” argument, a subtler form of masculine legacy creation and maintenance is the primary narrative.

Keywords: genetic genealogy; masculinity; family history; popular history; social psychology; identity

1. Introduction

It is a cold, grey Sunday morning in January 2012, and my colleagues Turi King, Jayne Carroll and I are standing in a church hall in Lancaster, in North West England. This is our third stop in a data-gathering weekend for our research programme. Turi is collecting saliva from male volunteers in Northern England for her ongoing research into the genetic legacy of the Vikings. The early hour and cold winter air notwithstanding, around 60 such volunteers have turned up this morning in Lancaster: the majority of them are at least late middle aged, as has been the pattern up to now. Turi and Jayne are delivering an informative and entertaining presentation on the broader context of the project, with regard to population genetics in the case of Turi, and name-studies in the case of Jayne. This is the third time, in the third location, that they have given this talk in less than 24 h. Adding to the sense of being part of a travelling academic roadshow is the fact that we have a television crew with us this morning, filming for an upcoming series on a people’s history of Britain. The object of the exercise is to illustrate a section on modern-day descendants of the Vikings. Unfortunately for the camera crew, the relatively homogenous group of elderly men gathered in the hall do not make for the most arresting visuals. If these are modern-day Vikings, they resemble a greybearded council of elders, rather than the popular image of Viking warriors. Suddenly, the double doors at the back of the hall are thrust open and a young man strides in. He is approximately 6’3”, barrel-chested, and dressed in a heavy metal t-shirt with flame-red hair tied back in a bandana. The camera crew’s eyes light up. This is more like it. They rush to interview the newcomer, who looks startled to suddenly be the centre of attention, as he attempts to take his seat.

The above vignette is intended to illustrate some of the ways in which images and understandings of masculinity are made implicit and explicit in the intersection between popular genealogy and academic population genetics. The research programme in question was entitled *The Impact of Diasporas on the Making of Britain*; it was based at the Universities of Leicester and Nottingham and funded by

the Leverhulme Trust. The purpose of the programme was to investigate the impact and legacy of migration to and from Britain in the first millennium AD (CE), encompassing those groups known to us as Vikings, Anglo-Saxons, and Celts. The programme represented a collaboration between historians, archaeologists, linguists, onomasts, population geneticists, and social psychologists. As one of the social psychologists on the programme, my focus was on how historical narratives and collective memories of migrant groups in the early medieval period inform discourses of immigration and indigenism today. Approaching this question in collaboration with colleagues from other disciplines has led to the consideration of local, regional, and national identities, as well as the exploration of the sense-making resources employed by participants in interpreting DNA and the status of DNA as “archival memory” (Scully et al. 2013, 2016). To date, however, I have not specifically addressed the question of how such practices of “applied genetic history” are gendered, specifically with respect to the role of masculinity in individual and collective attempts to establish a specific DNA link with the Vikings. This article is an attempt to do so.

The practice of searching for a Viking ancestor is, on one level, an exercise in redundancy. At a distance of a millennium, simple mathematics demonstrates that everyone, at least in Western Europe, and most probably further afield, has Viking ancestry (Rutherford 2016). However, most people seeking Viking ancestry do not do so starting with a blank slate, or in isolation from other information on the topic. Kenneally (2014) has argued that this argument of mathematical universalism—that everyone is related to a specific historical group or individual figure—implies erroneously that there is no texture in history or the narrative that can be fashioned from the same. Rather, this kind of texture was what the participants in our research were interested in: the majority were seeking confirmation of Viking ancestry, for which they already had amassed a certain amount of (usually genealogical) evidence. For such individuals, to be told “yes, you are descended from Vikings, because everybody is”, is seemingly psychologically insufficient. For DNA to contribute to a “usable past” it must contribute in some way to a more-or-less coherent narrative; for that narrative to be personally meaningful, it must be distinctive (Nelson 2008).

While a distinct genealogical narrative is relatively easy to accomplish with recent ancestry, accomplishing the same unique personal connection to a more remote shared past requires both evidencing and elision. In many cases, the two processes are linked: those ancestral lines for which evidence exists are the ones that narratives can be built around, while those lines that are under-evidenced become elided due to their lack of narrative purchase. Beyond the paper trail of documentary evidence, alternative forms of “evidence” must be found in order to construct links to the more remote past. Surname evidence is one means of constructing such links, with DNA evidence having become another. The latter is the promise held out by direct-to-consumer (DTC) genetic ancestry testing companies, advertising greater self-knowledge through a personalised link with specific groups in the past. For example, advertisements for the now defunct BritainsDNA asked potential customers whether they were “Anglo-Saxon, Celt, Viking or Pioneer”.

Critiques from population geneticists likening such claims to “genetic astrology” are widespread (Balding et al. 2010; Thomas 2013), while the problematic potential of such narratives to essentialise ethnic identities based on biology have also been highlighted (Fortier 2012; Morning 2014; Nash 2004a; Nelson 2008; Nordgren and Juengst 2009). To a lesser extent, how the forms of evidence used to access the remote past create gendered versions of history (usually favouring a patrilineal line of descent) has also been a cause for concern. Nugent (2010, p. 500) has argued that the use of patrilineal surnames leads to genealogical amnesia, “where only relatives from the paternal line are remembered as critical to both current family history and ancestral heritage”. This amnesia is arguably heightened by the use of direct-line Y-chromosome tests, which, while having the advantage to researchers of being usable alongside surname evidence, can lead to a distorted view of the past, even when technically accurate—as Kramer (2015, p. 88) argues, the “truths” genetic genealogy are able to tell are “partial and patrilineal”. The problematic nature of relying on direct-line Y-chromosome tests for insights about “who you really are” is highlighted by the example of African-American users of DTC genetic testing

seeking more information about their African ancestry, but regularly receiving results characteristic of European ancestry due to the grim realities of the sexual exploitation of female slaves by European owners (Tyler 2008; Nelson 2016). By way of contrast, discovering that one has a Y-chromosome characteristic or not of Viking ancestry may be seen as less of an existential challenge to one's sense of self, and more of a form of recreation. However, as Sommer (2012) cautions, recreational genomics cannot necessarily be separated from wider political contestations of identity, culture, and gender.

While the use of the tests themselves might create "partial truths", their interpretation in the broader cultural arena raises further issues relating to gendered narratives of ancestry and the past. The Y-chromosome itself becomes a signifier of wider patriarchal understandings of society, past and present; Oikkonen (2015) traces coverage of the creation of the figure of "Y-chromosome Adam" to illustrate early population genetics findings on the Y-chromosome. She argues that the embedding of this figure alongside "Mitochondrial Eve" in a culturally familiar narrative framework served to bolster traditional heteronormative understandings of masculinity and femininity. In a similar vein, Nash (2012, 2015) argues that the cultural focus on "founding fathers", such as Genghis Khan, to explain patterns of Y-chromosome variation (and genetic variation more broadly) draw on and simultaneously naturalise a patriarchal understanding of kinship. Not only Y-chromosomes and surnames, but also a broader sense of identity are seen as having been passed down from father to son, thus focussing on only one strand of a person's ancestry, and eliding all of their female ancestors. She also argues that popular accounts of such research tend towards a nostalgia for an imagined "heroic" past of simpler gender roles: one that represents men as warriors, women as passive, or even as possessions, and can "conjure up images of a harsher and simpler world of unlimited and often violent sex enjoyed by powerful men" (Nash 2015, p. 149).

Such a patriarchal "heroic" past chimes in with what Halewood and Hannam (2001, p. 566) have referred to as the "Anglo-American stereotypical representation of Viking heritage": that of "sea-faring, sexist, and blood thirsty men raping and pillaging". This representation is echoed in media reporting of population genetics research. For instance, the release of findings from Oxford University's "People of the British Isles" (PoBI) project in 2015, containing the finding that the genetic legacy of Danish Vikings may be smaller than previously presumed (Leslie et al. 2015), was accompanied by a myriad of lurid headlines. These included "Vikings were keen on pillaging but they drew the line at rape" from the Times, "New DNA evidence suggests Vikings innocent of rape" from the Daily Express, and "Vikings were NOT the sex-mad marauders we thought, new DNA suggests" from the Daily Mirror. Through the website "Sense about Science", Peter Donnelly, one of the authors of the study, subsequently issued a clarification that population genetics studies could not say anything about the behaviour of individual Danish Vikings (Elis 2015). Even when Vikings are disassociated from violence and rape, they are still represented as somehow essentially masculine, and that this is encoded biologically. For instance, Kroløkke (2009) analysed the success of the Danish sperm bank, Cryos International in marketing its product as "Viking sperm", and thereby as representing a genetically encoded masculine ideal.

Within this context, for an individual man to seek to establish his "Viking ancestry" is to situate himself, deliberately or otherwise, within a certain historical-cultural discourse of masculinity. For the men in this study, these discourses may intersect with others of place, class, and power. It is relevant here that this study is situated in Northern England: it has been previously argued (Scully et al. 2016) that claiming Viking heritage is a way of distinguishing Northern England from Southern England. It is likely that this is a form of accounting for the "hardiness" that stereotypically distinguishes the North from the "soft" South. "Hardiness" is equated with "hegemonic masculinity" (Connell 1987) in a Northern English context: much has been written about the association of "Northern" masculinity with hard physical labour, and how this has been negotiated following deindustrialization (Taylor et al. 1996). Indeed, Milestone (2016) has argued that "Northernness" itself has been constructed as a masculine subject position. It may be seen as stretching a point to plot a direct cause and effect relationship between the decline of traditional masculine occupational roles in

Northern England, and interest in Viking ancestry through DNA: certainly there is no comparison with the active challenging of marginalized histories carried out by African-American genetic genealogists. However, equally it must be recognized that this cultural context of hegemonic masculinity shapes how men engage with the past where gender may be pertinent. For instance, [Spracklen et al. \(2014\)](#) argue that the “extreme metal” scene in Northern England, through an engagement with Anglo-Saxon and Viking heritage, constructs a specific White, Northern “heroic masculinity”. Similarly, [Hunt \(2008\)](#) has argued that participation in “living history” groups, particularly those with a militaristic slant, allows an “escape hatch” from the “crisis in masculinity” and a return to a time when “men were men”. As a form of “serious leisure” genetic genealogy may allow similar forms of identification with a “heroic” masculinity. However, one should not assume a direct translation between various ways of engaging with the past. Taking on a “heroic” identity through music or historical recreation can be seen as a form of play-acting, and is part of a wider collective performance. While there is certainly a collective performative element to genetic genealogy, it might be considered to be more reflective of a more introspective pursuit of self-knowledge. Attention to the ways in which masculinity is made meaningful by those who have undergone DNA ancestry tests ought to shed more light on this question.

Despite the argument that viewing the past through DNA encourages a patriarchal view of kinship, there is evidence to suggest that women are more likely than men to be consumers of DNA ancestry services ([Carere et al. 2014](#)). This may be due to the capacity of certain services to provide medical information as well as information about ancestry—[Haddow \(2009\)](#) has argued that in these contexts, women play a role as “kin keepers” of information about the family, now including genetic information. It should also be said that a focus on male lines of descent in applied genetic history runs counter to the prevailing trends in genealogy, moving away from a preoccupation with the paternal line towards people exploring all aspects of their ancestry, creating new radical histories of “the family” in the process ([Evans 2011](#)). Similarly, trends in Viking studies have moved towards a more nuanced view of gender in Viking societies, following the work of Judith [Jesch \(1991\)](#) among others.

Alongside these concerns about the cultural impact of the privileging of male lineages lies the well-attested argument that using a combination of Y-chromosomes and surnames as a sampling method does provide genuine scientific insight on population composition in the past. For instance, an ongoing historical question which population genetics has attempted to resolve has been the extent of Viking migration to various areas in Britain, Ireland, and the islands of the North Atlantic ([McEvoy et al. 2006](#); [Bowden et al. 2007](#); [Goodacre et al. 2005](#)). The project that this paper draws on was in this tradition of work, and looked at the genetic legacy of the Vikings in Northern England. This project arose from Turi King’s previous work on surnames and the Y-chromosome. It had previously been hypothesised ([Jobling 2001](#)) that where surnames and Y-chromosomes are both inherited through the male line, as in Britain and many other Western countries, men who share the same surname ought to share the same Y-chromosome. King was the first to provide empirical evidence for this hypothesis, demonstrating that a strong, though not perfect, link exists between a surname and a Y-chromosome type and that the rarer the surname, the stronger the link ([King and Jobling 2009a, 2009b](#)). As many surnames, particularly rare surnames, are geographically specific, this insight allows geneticists to work on the basis that the Y-chromosome type of a man today bearing a specific regional surname should signify that that Y-chromosome type was present in the region when the surname originated ([Redmonds et al. 2011](#)). This then allows some insight into the genetic make-up of the male inhabitants of a specific region in the past. As different types of Y-chromosome are at least somewhat characteristic of different geographical regions, it is possible to address the question of the migratory scope of a specific group in the past. The strategy for the genetic study mentioned in this paper was to sample men bearing old (and relatively rare) surnames originating (as far as can be established) in Northern England in areas of Viking settlement, and to investigate whether, *as a group*, these men show a higher degree of Scandinavian ancestry than those in the rest of Britain where the Norse Vikings did not settle ([Scully et al. 2013, 2016](#)).

I have placed “as a group” in italics, as it is important to recognise that population geneticists work with populations, and are wary about making claims about ancestry at the individual level when Y-chromosome information is all that is available. This is a bone of contention between population geneticists and genetic genealogy enthusiasts, with the former arguing that while genetic ancestry tests themselves are robust, their interpretations at the individual level are strongly influenced by cultural and other social forces beyond what the science can reliably say (Jobling et al. 2016). There is a tendency in scientific writing to emphasise the difference between the “astrological” uses of genetic ancestry tests offered by DTC companies, and the “robust and useful science” engaged in by academic population geneticists (Rutherford 2016).

However, as Jobling et al. point out, such distinctions are messy: the walls between “popular” and “reputable” science are opaque. For one thing, many commercial companies have varying levels of involvement from academic scientists, and also have reputable scientific research wings, involving those who donate DNA as consumers and research participants simultaneously (Tutton and Prainsack 2011). Meanwhile, whereas academic population geneticists are not concerned with attracting customers, they still need to recruit participants. This can be a difficult balancing act: while researchers are interested in genetic data on an aggregate level, individual participants tend to be interested in what their individual data say about them. As Harris et al. (2013) argue, participation in such studies often represents a form of “gift exchange”, with participants anticipating some form of reciprocity for their donation of genetic material, usually in the form of information about their DNA. Taking both instrumental and ethical concerns into account, researchers in population genetics differ in the extent to which they are willing to engage in such reciprocity. The PoBI study did not offer individual results to participants, instead relying on the “generosity of volunteers”. On the other hand, the Impact of Diasporas study followed the general practice of genetics research at the University of Leicester in returning results to participants. In so doing, we were engaged in, as Jobling et al. put it, the “struggle to balance the need for rigour in the information we provided to an individual about their ancestry against the possibility that it is too disappointingly vague or equivocal to be of any interest at all” (Jobling et al. 2016, p. 155).

Over the course of the project, participants were regularly reminded that the data were being collected for analysis at a population level, and the results returned were contextualised appropriately. How participants subsequently interpreted these results is explored in Scully et al. (2016). However, it must be admitted that participants inevitably received mixed messages about the individual significance of their data, above all from wider cultural assumptions about the nature of genetic ancestry testing, from some of the media headlines that accompanied the project, and from the very fact of being considered particularly worthy of inclusion in a study about the Vikings due to having a certain surname, having ancestral roots in a specific area, and being male. It cannot be denied that participation in a study like ours could, however inadvertently, promote, or at least reflect the idea that male lineages are particularly important, thus promoting patriarchal views of kinship. However, this is not an inevitable process: as we have previously argued, individuals possess agency in using scientific information to shape their identities. In analysing the responses of participants through the lens of masculinity, I consider the extent to which participants’ accounts of their own involvement in the study draw on understandings of ancestry, gender, and patrilineage.

2. Methodology

As outlined above, the data drawn on in this paper was generated in two stages. In the initial stage, which occurred simultaneously with the genetic sampling sessions, those donating DNA were asked to complete a participant motivation survey. As well as asking participants about their motivations for taking part in the study, the survey included questions about local and national identity, assumed ancestry, expectations from the results, and interest in genealogy, genetics, and history. A space was also provided for participants to include additional comments about their participation and the project in general. The sessions were carried out in York, Harrogate, Lancaster, and Keswick over the

course of a weekend in January 2012. In all, 128 completed surveys were received: the mean age of participants was 59.

Within this initial survey, participants were asked to indicate their willingness to participate in interviews following the return of their genetic results. I subsequently conducted 18 such follow-up interviews between July and December 2013, largely in participants' own homes. At this point, we narrowed the focus of the study to Yorkshire, both for logistical reasons and to align with other strands of our research agenda investigating the "Vikingness" of contemporary Yorkshire. In keeping with the demographic profile of the sampling sessions, interviewees were mostly men in their 50s, 60s and 70s; many of whom had become interested in genealogy as a retirement project. While most interviews were one-to-one, on one occasion, I interviewed a pair of distant cousins together, while two participants were accompanied by their wives, and one by his daughter. The interviews were semi-structured, and while some were relatively brief, the majority lasted over an hour. Topics covered included participants' own interest in family history, local identity, and the Vikings, their sense of local and national identity as related to their ancestry, their awareness and understanding of population genetics, and their reaction to the results. The topic of gender or masculinity was not explicitly addressed in the interviews, but arose in conversation on a number of occasions—most regularly when participants discussed which ancestral lines they had chosen to investigate.

3. Meaning-Making and Masculinity

Analysis of the dataset, including survey responses and interview transcripts, focused on instances in which gender was made relevant (implicitly or explicitly) by participants. The analysis was informed by [Wetherell and Edley \(2014\)](#) discursive framework for researching masculinity, focussing on the making of meaning around masculinity and how this is accomplished using available discursive resources. Specific orienting questions, formulated from previous research, were as follows:

- To what extent do participants draw on "traditional" narratives of gender roles in discussing genetics, family history, and personal links to the Vikings?
- Do participants prioritise their patrilineal line of descent, and if so, how is this justified?

Of the 128 participants who filled out the original participant motivation survey, 92% said that they were either "very strongly" or "strongly" motivated to participate by an interest in family history. In total, 62% of participants were personally engaged in genealogical research, 26% were considering genealogical research, and 10% were not engaged in genealogical research themselves, but a close relative was. The overwhelming majority of respondents were therefore building on existing understandings of their family history. It also became apparent from the responses to the open survey items that "family in the past" and "family in the present" were seen as linked. These responses regularly invoked family members, either as instigators of participation, or as the ultimate beneficiaries. The following extracts are representative:

- **Y10:** My daughter was very keen for me to do it. I'm probably as equally interested in the science of it as its personal value.
- **Y38:** Wife volunteered me!!
- **L6:** My daughter is very interested in family history and ancestry.
- **L19:** I am here on behalf of my father. He has an interest in family history having traced his ancestors back to 1530. The next step for our origins lie in DNA.
- **Y39:** I have traced my family back to about 1684 with some confidence and wish to leave a thorough and well documented account of our story for my own son and grandson!
- **L21:** I volunteered really to "reserve" the {surname} name in the study for my family. I had already talked with sister and father about paying for a DNA test to discover possible ancestry—so this is a good way to get it for free!

- **L36:** I volunteered for this project to hopefully obtain confirmation of my heritage. This will enable me to pass this on to my children. I have two daughters and there are no other males left in my immediate family so I wish this information to be passed on.

From the survey responses, some initial themes emerge. It is clear that for many participants, their participation in the study is an act of “kin-keeping”, either on their own behalf or at the behest of other (male and female) family members. Here, DNA represents a form of archival memory (Hamilton 2012; Scully et al. 2013); the sessions represent an opportunity to extract information from this archive in order to be able to pass it on alongside other forms of knowledge about the family. That this is information specifically about only one line of descent does not appear to limit its ability to explain “our origins”, “our story” or “my heritage”. As we have noted previously (Scully et al. 2013), obtaining this information seemingly becomes more urgent when it can no longer be passed on biologically: the fear of a family line becoming “daughtered out” highlights patrilineal understandings of kinship (Nash 2004a).

The privileged positions of fathers, sons, and grandsons in such statements were also evident in the interviews. However, this focus on male descent was rarely explicitly linked to the stereotypically masculine image of the Viking warrior. The extract below is thus exceptional rather than representative:

Rob: I have already told them that there’s a massive chance that they are Vikings, they’ve already been told and it’s fifteen and thirteen, my two boys so I could imagine them wearing some type of loin cloth behind me (*laughs*) fight in York together. No, but yeah obviously if it’s for me then obviously I’m passing that down in the history sense, yeah

Marc: And were they impressed by that?

Rob: Erm, not really, they’re teenagers, aren’t they and they just wanted to get back on the Xbox, I’m sure if er they created a game, a Viking game where it involved killing other people then I’m sure they’d be well up for it, yeah (*laughs*).

For Rob, a link to a Viking past through DNA allows him to enjoy a hypermasculine heroic fantasy of fighting in the streets of his hometown of York with his teenage sons. This draws on the popular image of the Vikings perhaps more rooted in fantasy literature than history—the image of Vikings fighting in loincloths being more the stuff of videogames than contemporary historical sources. He then clarifies that “obviously” he intends to pass down the information in the “history sense”, although he suggests that his sons are unlikely to be interested in “their” Viking heritage unless through a “Viking” videogame offering the opportunity to “kill other people”. Again, the association of the Vikings with violence might seem to confirm concerns about the potential to reimagine “heroic” pasts through DNA: a form of play-acting hypermasculinity that is reminiscent of the earlier examples of heavy metal and military re-enactment.

However, this form of hypermasculine identification with a warrior lineage was relatively rare among respondents. While many participants framed their genetic information as a legacy that could be passed down from father to son, the significance of this was often invested in other things. For instance, in the extract below, Howard explains how involvement in genealogy, and in particular researching the history of his surname, has increased his sense of belonging to a specific area of Yorkshire:

Howard: I mean as far as I can go back, my male ancestry inevitably is undoubtedly is Yorkshire. Uh so I’ve got very, very deep roots and culturally feel this is my— these are my lands, y’know, this where I come from. And I’m very proud of that. I mean, in a way, that kind of affects the way you think about things, the way you perceive things. Erm and, I mean, it’s very hard to put it into words but I’ve always felt that this is— this is my home, this is [Marc: yeah, yeah] where I’m from, these are my roots. [Marc: mm] And I think the more I do in terms of researching my ancestry, the more that kind of feeling is reinforced.

Howard emphasises that it is not just his ancestry in general, but his *male* Yorkshire ancestry that allows him to claim “very, very deep roots”, and make a territorial claim on the surrounding area. The imagery drawn upon is that of patrilineal inheritance: an affective ownership of the land in cultural, if not financial terms, that is underpinned and legitimated by his own ancestral research. Ancestral research can be seen as an ongoing act of claiming his stake: Howard is asserting his continued right to “his” inheritance.

If this form of “rooted” inheritance involves a dialectic between knowledge and belonging, the question then arises as to the future of this inheritance. Discussing his efforts to pass his ancestral knowledge on to the next generation allows Howard to draw a direct line from his own father to his son:

Howard: What’s interested me in particular is that my son has shown no real interest. I mean, he’s twenty-eight. No real interest whatsoever. We’ve got two kids. He– uh neither of them have shown any interest, really, in the research I’ve done on, on the *{surname}* history or the– the direct ancestry. Erm but my son in particular uh with this issue, and with DNA stuff, has been absolutely fascinated by it [**Marc:** okay, yeah] because he’s got a very real interest in the whole Viking uh thing so– and he wants to go to the exhibition in, [**Marc:** okay, right] in March. We’re going down at some point, so that’s kind of focused his interest [**Marc:** yeah, yeah] more than anything.

Marc: Yeah, and of course he would have the same Y-chromosome again, so.

Howard: W– w– we’d assume so.

Marc: (*laughs*) You’d assume so, yeah*.

Howard: Be surprised if he hadn’t but (*laughs*)

Marc: Yeah, it’s erm it’s one of the things that erm that when the geneticists are filling out their ethics forms they have to put in, y’know, there is a slight *chance* [**Howard:** (*laughs*)] that we might uncover some family secrets. [**Howard:** (*laughs*)] Erm bu– so yeah in that the sort of (.) is almost the passing on the knowledge is. [**Howard:** yeah] And is it the Viking element or the genetics element that kind of captures– or is it a combination.

Howard: I think from his point of view it’s the Viking stuff that is of interest. I mean, I know tha– I never– I didn’t really get into my genealogy sort of hobby uh until I was a good deal older than he is. And I think y’know, like I said to you, it was when my father was seriously ill. You then start thinking about, y’know, where– the next generation, where you’ve come from and all this kind of stuff. And I think he– I’m pretty certain he’ll get into it.

Although Howard briefly mentions having two kids, it is his son that is the focus of this narrative: the fact that he lacks interest in their shared paternal ancestry is constructed as a curiosity that will be remedied by time. Howard here constructs the point at which one becomes interested in one’s place in a family lineage as occurring at a specific point in the lifecourse—being twenty-eight is proffered as a relevant explanation as to why his son currently lacks interest in his ancestry. Or rather, being faced with the mortality of the previous generation is constructed as leading to generational thinking. Howard’s confidence that his son will “get into it” suggests that he views this generational thinking/genealogical interest as itself something inheritable in and of itself.

Whether genetic information might accelerate this process and lead to a shared interest in family history is therefore worthy of consideration. Howard highlights that his involvement in the DNA project has captured his son’s attention: the latter’s fascination, however, is rooted more in the potential for a link with the Viking past than the local rootedness that characterises Howard’s investment. There is a common thread in Howard and Rob’s responses therefore of sons not yet being ready to

share their fathers' interest in their paternal line ancestry—or at least not on shared terms. The impetus here therefore seems to be one of legacy, rather than immediate gratification: it is something that the next generation will appreciate in the future.

That this legacy appears to represent an assemblage of meaning around being a male member of the family rather than simply information about genetics and ancestry is elaborated on by Howard, when we return to the question of his concentration on his patrilineal rather than other lines of ancestry.

Marc: Have you done— you say your wife is interested in family history as well, have you done the other lines or have you just kind of gone on.

Howard: She's done other lines more than me. I mean, I very much concentrate— I— I feel very, very identified with my own surname. And like in terms of politics, and outlook on life, with my father, my grandfather, more than my mother's side. Do you see what I mean, we're on a, and that was a more a middle class kind of— y'know, I've got much more rooted kind of feelings towards my paternal ancestry than my maternal ancestry.

Howard explicitly names his genealogical partiality as being an identity project: his surname represents not just a male lineage, but an identity that is rooted in place, politics, class, "outlook on life" etc. One can of course query the direction of investment; whether, as Howard seems to suggest, it is the extent to which his paternal line is consistent with his current positionality that dictates his interest, or whether the culturally privileged position of the male line makes points of identification with this ancestry more available and desirable.

Other participants also related their concentration on their male lines of ancestry to their own contemporary concerns. For instance, below, Ed elaborates on sharing his relatively unusual DNA results with his sons:

Ed: I'm telling everybody. (*laughs*) I've three sons, and I've told them. That's all, I've told my three sons, and they think it's pretty cool.

Marc: You'll have to get t-shirts printed [**Ed:** yeah, exactly, exactly] saying G haplogroup. The family research you've done, has it just been the *{surname}* line you've concen— [**Ed:** yeah] so it's just going up the erm

Ed: I've not gone anywhere on the female side. I mean I've had three wives myself [**Marc:** oh, okay] so it's gonna get really awkward [**Marc:** (*laughs*)] ain't it eh? (*laughs*) No, I've done nothing on the female side whatsoever. [**Marc:** okay] As I say, I've got back to 1803 with my great, great grandfather, who was living 15 miles in the countryside that way and that's as much as I've done.

This sense of newly acquired information about one's direct paternal line of descent creating real or imagined bonds between fathers and sons can therefore obscure lines that come through female ancestors—or, it might be more accurate to say, lend scientific legitimacy towards the act of ignoring these lines. For Ed his own complicated romantic history is sufficient justification to dismiss his female ancestry as too complex—tracing his own surname through his paternal line offers a more straightforward narrative of descent, and it must be admitted that his participation in a genetics study looking at surnames and the Y-chromosome has probably exacerbated this.

This association of female ancestry with complexity and "noise" to be overlooked in favour of a more straightforward masculine narrative of descent is also evident in Joe's account below:

Joe: I don't know what it is with blokes. I think we tend to be, we tend to follow us own lineage rather than you know, us mother's side, which is certainly what I've done. Erm, I suppose it is as important really because like I'm 50/50 at the end of the day.

Marc: Yeah.

Joe: Erm, but I think it's just that, you know, 60, prior to maybe 50, 60 years ago it was a male-dominated world. You know what I mean?

Marc: Yeah.

Joe: It was something even I did when I first got married, I didn't like the idea of my missus workin' at all.

Marc: Oh right.

Joe: You know, I thought it was a man's job. You know what I mean?

Marc: Yeah.

Joe: The man should go out and work and quite honestly me missus felt the same way. You know what I mean? It was, "Well that's cool." You know, "I wanna stay home and look after the kids." So it's you know, we've changed a lot in a lot of ways, not all for the good I don't think.

Nash's contention that a concentration on paternal lines of descent are associated with nostalgia for an era of more clearly defined gender roles is starkly evident in Joe's explanation for concentrating on his paternal lineage. He starts by aligning himself with "blokes" in general in having this attitude towards his paternal lineage. The ideological dilemma presented by the fact that half his ancestry comes from his mother's side and so is worthy of being considered important, is resolved by a remarkably quick pivot into nostalgia for a male-dominated world of clearly defined gender roles, where men worked and women had responsibility for childcare.

It is worth pointing out at this point that, *pace* Joe's characterisation of "blokes'" interest in their paternal ancestry, there was far from unanimity among the men I interviewed about the pre-eminence of the paternal line. For instance, George weighs up the significance of DNA evidence among other sources of information about his past:

Marc: So do you thin– do you think the results of the DNA tests now will be something you'll incorporate within [**George:** absolutely] right, [**George:** yes] yeah, yeah.

George: Oh yes, yes. It's been very valuable to me. It's uh it's bee– from a scientific point of view, it's interesting. Uh from a family history point of view, how valuable is it. I think it's: it's a good indication of where the {family} surname has come from. But y'know it's– I'm only a fraction of a Viking now. [**Marc:** (laughs)] I mean they say thirty years per generation, and we're talking about a thousand years ago. [**Marc:** yeah] Uh so that's uh that's something like ninety generations is it. [**Marc:** yeah, yeah] Uh or thirty generations. Thirty generations, isn't it. So uh I'm– so I don– I don't know what that makes me. It's

Marc: Yeah. I mean like

George: A millionth part of us [**Marc:** (laughs)] is Viking. (laughs)

For George, while a genetic link to the Vikings is personally interesting, and may create an origin point for his family surname, he presents himself as maintaining an awareness that his paternal line is only one, temporally distant, strand of his ancestry. Describing himself as one-millionth part a Viking is a means of downplaying the idea that his paternal ancestry should have any particular significance for his contemporary identity. The knowledge is seen as worthwhile for its own sake, rather than in the service of any particular project of incorporating the self into a wider collective or of cultural understanding of "Viking-ness".

Thus far, I have looked at the responses of participants for whom it was possible to draw a direct line of descent from distant "Viking" ancestors through fathers to sons (and grandsons). This was not possible for all participants in the study, which led to a certain level of negotiation, as is evident in the extract below:

Helen: And we haven't got any sons, we have six grandsons but no sons [**Harry:** only daughters] so much as our David who's in this historical group at (*location*), we were so excited 'cos at first I said, David you might be a Viking if we find out from Granddad, then when it came back and, but we sort of just didn't really tell him at the time, you don't [**Harry:** he's six years] he's only young but he likes to think he's a Viking actually, does David, at the moment.

Harry: 'Cos it's only the Y-chromosome that passes down isn't it through the

Marc: Yeah yeah

Helen: So you can't, you can't even like say, because we've no sons, we can't say it passes on to our grandsons, can we?

Marc: Ah it would, not at, not at the Y-chromosome level [**Helen:** no, no] it only passes down from father to son, yeah [**Helen:** yeah] [**Harry:** yeah].

Helen: It's a shame that isn't it [**Harry:** yeah, yeah] mm [**Harry:** yeah].

The focus on the paternal line on surnames and the Y-chromosome as a means of identifying with the Vikings creates a conundrum for people for whom that link has been disrupted. As part of the work of kin-keeping, Helen and Harry would like to be able to include their grandson David within the imagined genetic community of Vikings, but because he does not share a Y-chromosome with Harry, cannot do so. It is interesting how the scientific logic of genetic inheritance takes precedence here. David remains Harry's grandson, lives in an area of Viking heritage, and in all probability is descended from Vikings somehow, but "Viking identity" through the Y-chromosome is not a legacy Harry can pass on to David. Again this serves to position direct male descent as the default means of passing on family heritage, and the Y-chromosome as a more "authentic" marker of identity than other forms of knowledge.

Where the methodological restrictions placed by the scientific process limited the utility of DNA for family narratives, some participants sought to subvert this process in order to maintain the personal importance of these narratives. For instance, in order to become a participant in the research, Nick used his mother's maiden name, which was on the list of location-specific surnames, rather than his own surname, which was not:

Nick: It was a bit unfortunate that I'm a male from my dad's side because it wouldn't be picked up on the results but there are *{surname}* males around which I could sort of put you in touch with if you wanted to do their DNA.

This presents an interesting reversal of the usual caveats around the relationship between population and individual level readings of DNA results. Nick is sufficiently knowledgeable about genetics to know that a Y-chromosome link to the Vikings is unlikely through his father's side, but it does not appear to have occurred to him (or at least it does not seem to worry him) that he is affecting the validity of the research.

Nick: Yeah my mother's family are north Yorkshire, er my father's family er were well he came from Scarborough but when I've traced them back they're all from Worcester [**Marc:** oh ok right] so they're not really Vikings are they. I knew my result wouldn't be Viking (*laughs*)

Marc: Yeah, yeah so you're not particularly, so if it had come back a bit more indicative of Viking ancestry would that have been a pleasant surprise that way as well?

Nick: Yeah I suppose so, I never expected it to be with me being sort of, because I know it follows the male line doesn't it, but I wanted to tell you this tale about the *{surname}* family because if you can get some *{surname}*s with what I've looked at with my research and particularly, I can follow every line of *{surname}*

Nick's link with the Vikings is one that he regards himself as having established through his mother's side—there is something of an impasse here between the wealth of genealogical evidence he has accumulated and the final imprimatur of scientific evidence, which he does not have access to, due to having the 'wrong' Y-chromosome—something he seeks to rectify by putting me in touch with male relatives on his mother's side. His saying, "I wanted to tell you this tale about the . . . family" might be seen as another form of the "passing on" of a narrative: not to posterity in the sense of family, but in the sense of having it written into the scientific record, and thus validating his own preferred identity.

Nick's deliberate blurring of his maternal and paternal lines highlights the contingent nature of "truth" in ancestry on which the scientific model at least partly rests. If one is to assume a relationship between surnames and the Y-chromosome as a link to the past, we must also assume that along the chain of fathers and sons, each son's named father is the same person as his biological father. Geneticists (somewhat coyly) refer to potential breaks in this chain as "non-paternity events", which are counted along with adoption and matrilineal surname transmissions as "nonpatrilineal transmissions". At a population level, the possibility of such events are built into sampling methodology and statistical modelling (King and Jobling 2009a, 2009b). At the individual level, however, there remains a chance, however slim, of a Y-chromosome test revealing a relatively recent "non-paternity event". This possibility of "uncovering family secrets" formed part of my discussion with Howard earlier. The possibility of illegitimacy or infidelity at some point in the past can be represented as a threat to direct male inheritance—as such, it was interesting that it was brought up as an issue by one of the women interviewed. Grace (below) was married to Wesley, one of the participants in the genetic research. She had instigated his participation in the study, and very much acted as the genealogical "kin-keeper" for the wider family.

Marc: So doing this kind of genealogic res-, have you found any other *{surname}* doing similar research, is there a bit of a, 'cos I know when some people have like a one-name project or something like that.

Wesley: Well I think Grace's come across picked up something recently from somebody else who's doing it. But

Grace: Well, you do find them but as uh, you go in straight lines, I'm afraid I don't go for the uh, I have a great thing against, what they call the GOONS [*Guild of One-Name Studies*]. That's the whatnot of one-name studies. Because uh I always as a feminist know that within five generations, the milkman's coming. [**Marc:** (*laughs*)] The proverbial milkman. So you can't go through the male line, it's a wise man who knows his uh, but uh you- you've got uh likenesses going back quite a long way, so there's a chance. (*laughs*)

Despite Wesley's participation in the study being at Grace's instigation, she maintains a scepticism regarding putting too much store by lines of direct male descent. This may be reflected in her use of the mildly derogatory acronym GOONS to describe the Guild of One-Name Studies. It should perhaps be noted that the website of the Guild of One-Name Studies describes the acronym as being chosen deliberately so that members would not take themselves too seriously. Using similarly jocular language, Grace refers to non-paternity events as "the proverbial milkman". In drawing on the cultural resource of the "milkman joke", itself reflective of male fears of cuckoldry, Grace punctures the notion of male self-importance inherent in patrilineal genealogy. While tracing one's patrilineal lineage back to a Viking warrior, or a figure such as Genghis Khan or Niall of the Niall Hostages might be a way of

associating oneself with sexual potency (with an undercurrent of violence), the coming of the milkman (so to speak) in between the present and the distant past satirises this conceit. This serves to deconstruct the notion of direct male lines of descent as the default mode of ancestry—it is interesting that Grace explicitly represents this as a feminist intervention. Implicit, perhaps, is the idea that women have sexual agency in choosing their own sexual partners: the milkman over their own disappointing husbands! However, perhaps aware that she is undermining any rationale for Wesley's participation in the study, Grace engages in some correction. While men in general may not be able to depend on the accuracy of their patrilineal ancestry, Wesley resembles the pictorial record of his direct male ancestors; this acts as a third source of evidence, giving additional support to the potential link between his surname and his Y-chromosome. Wesley himself takes up this point later in the interview:

Wesley: I'd always subscribed to the idea that Grace's already mentioned that there's a milkman somewhere in your line somewhere, y'know the fact that y—some string with the uh Y-chromosome thing was uh quite a surprise. Y'know I thought well y'know, a surname uh y'know I'm pretty sure about three of my generations, y'know, from photographs and things like that. But uh going back further, [MS: yeah, yeah] I wouldn't have been sure at all that uh some cuckoo hadn't got in the nest further back.

Marc: Yeah. S— you don't f— you don't put any great store in that there's an unbroken line back to

Wesley: No, I don't think so. Uh uh there might be. I mean who am I to cast aspersions about the morals of my ancestors [Marc: *(laughs)*] but uh I have doubts. [MS: yeah] I would have doubts, I think anybody should have doubts, really.

Where Maureen uses the metaphor of the milkman to characterise non-paternity events due to infidelity, Wesley uses that of the “cuckoo in the nest”. In using a metaphor of an outsider who has entered the family unit under false pretences, Wesley highlights the question of who exactly counts as “family” “further back”. If he has a biological ancestor that might be a “cuckoo in the nest”, does this ancestor take precedence over his attested genealogical ancestors in his understanding of his male-line family history? Nash (2004b) has highlighted the embarrassment caused to male members of Irish genealogical clan associations, by the discovery of likely non-paternity events in the genetic record. She argues that “failure to match” is framed “more or less explicitly by questions of men's abilities to order and violently disorder the ‘proper’ arrangements of women, sex and reproduction” (Nash 2004b, p. 237). Wesley, however, effectively abdicates responsibility from this type of “ordering”. He resolves the dilemma of which potential ancestry to identify with, by positioning himself as having doubts about an “unbroken” paternal line, which he recommends as a normative position. Far from his engagement with genetic readings of his ancestry having provided any form of ontological certainty, he retains scepticism.

4. Conclusions

Returning to my second orienting question as to whether participants prioritise patrilineal lines of ancestry, there is some evidence from the data that engaging with genetic research serves to position male lines of descent as pre-eminent. In some instances, it also appears to legitimate patriarchal discourses of the family, as well as being associated with nostalgic discourses around a time of “simpler” gender roles. There were also occasional instances of DNA evidence being recruited to support an imagined “heroic” hypermasculine identity, although not as frequently as might have been expected given the “Anglo-American” stereotypical representation of Viking heritage, and the role of the warrior figure in other forms of Northern English white male engagement with the past.

Overall, however, while references to “Viking DNA” undoubtedly have a way of grabbing one's attention, it seems to be that there is a subtler (although no less authoritative) form of “doing” masculinity evident in these accounts. Haddow (2009) has argued that women frequently act as

“kin keepers” for the wider family: however, we must assume that the act of “kin keeping” itself is a gendered one. The men in these accounts represent the accumulation of knowledge about kinship relations, whether genealogical or genetic, as something to be passed on—it is in being transmitted that the information gains its value.

Nordqvist (2017) account of genetic relationality as a family practice provides a useful means of thinking through this accumulation and reproduction of knowledge. Accumulating genetic and genealogical knowledge is not just a means of extending the reach of the family into the past (through the paternal line) but is a means of “doing family” in the present. Nordqvist argues that genes do not speak for themselves, but are rather rendered and so become meaningful: furthermore “genetic thinking” acts as a proxy for social connectedness and “belonging together” (Nordqvist 2017, p. 878). Nordqvist speaks of “passing on” in the sense of family qualities that can potentially be inherited, but in this study what is being passed on is knowledge of the past. As this knowledge of the past is concerned with surnames and the Y-chromosome, it is necessarily gendered, and this shapes the “culture of transmission” by which the men in this study are passing on understandings of the family to their own children and grandchildren. In particular, as we have seen, this information concerns what it means to be a male member of the family (a “Viking”) and transmission through male descent is privileged. While this may be a “subtler” form of masculinity, therefore, it is not counter-hegemonic in Connell (1987) terms—families are still understood through their male, rather than their female ancestors. This then may be seen in Brannen (2006) (Brannen and Nilsen 2006) terms as an intergenerational transmission of meaning around “maleness”, and particularly *Northern* “maleness”. This is not yet an exchange of resources: in many cases, the children and grandchildren of participants are represented as not yet being interested in the knowledge to be transmitted: however, this does not seem to reduce the responsibility participants construct, as fathers and grandfathers, to accumulate this knowledge in order that it can be transmitted at some point in the future.

Why might this be? The answer may lie in the demographic characteristics of the participants in this study. As I have mentioned, the average age of those who participated in the initial phase of data collection was 59, and it was evident that interest in genealogy for many of the participants coincided with retirement and/or an awareness of their own mortality: this “lifestage” aspect of genealogy has also been noted by Cannell (2011). The work of Davidson et al. (2003a, 2003b) on the social activities of older men has highlighted their preference for engaging in ‘useful work’: where this relates to the family, it allows them to occupy the traditional patriarchal role of “sage” or “wise man” (Mann 2007). The practice of accumulating and interpreting knowledge about ancestry (defined paternally) might be seen as precisely this kind of family-focussed useful work that allows older men to occupy this valued role.

In my opening vignette, I illustrated the desire of the camera crew to obtain footage of a “Viking warrior”: that archetype of hyper masculinity. However, from analysis of the meaning making carried out by those participating in DNA studies relating to the legacy of the Vikings, it seems that another archetype of the Viking age is more relevant: that of the saga (itself a narrative form concerned with genealogy and “heroic” founders of paternal lineages). In accumulating knowledge and crafting narratives of the family with paternal descent at their core, participants are doing family work in ways that involve subtler transmissions of masculinity. In the end, the act of remembering is that of the greybeards, not the warrior.

Acknowledgments: The research programme that forms the basis of this paper was funded by the Leverhulme Trust under Programme Grant [F/00 212/AM]. Previous versions of this paper were presented at the BPS Social Psychology Section conference in Cardiff in August 2016, and the International Family History Workshop held at Manchester Central Library in September 2017. I thank delegates at both these events for their helpful comments and suggestions. Thanks are also due to my former colleagues on the *Impact of Diasporas on the Making of Britain* research programme, particularly those named in this paper. I would also like to thank the editors and reviewers for their thoughtful and insightful comments and suggestions on the first submitted version of this article.

Conflicts of Interest: The founding sponsors had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, and in the decision to publish the results.

References

- Balding, David, Michael Weale, Michael Richards, and Mark Thomas. 2010. Genetic and isotopic analysis and the UK Border Agency. *Significance* 7: 58–61. [CrossRef]
- Bowden, Georgina R., Patricia Balaesque, Turi E. King, Andrew C. Lee, Giles Pergl-Wilson, Emma Hurley, Stephen J. Roberts, Patrick Waite, Judith Jesch, Abigail L. Jones, and et al. 2007. Excavating past population structures by surname-based sampling: the genetic legacy of the Vikings in northwest England. *Molecular Biology and Evolution* 25: 301–9. [CrossRef] [PubMed]
- Brannen, Julia. 2006. Cultures of intergenerational transmission in four-generation families. *The Sociological Review* 54: 133–54. [CrossRef]
- Brannen, Julia, and Ann Nilsen. 2006. From fatherhood to fathering: Transmission and change among British fathers in four-generation families. *Sociology* 40: 335–52. [CrossRef]
- Cannell, Fenella. 2011. English ancestors: The moral possibilities of popular genealogy. *Journal of the Royal Anthropological Institute* 17: 462–80. [CrossRef]
- Carere, Deanna Alexis, Mick P. Couper, Scott D. Crawford, Sarah S. Kalia, Jake R. Duggan, Tanya A. Moreno, Joanna L. Mountain, J. Scott Roberts, and Robert C. Green. 2014. Design, methods, and participant characteristics of the Impact of Personal Genomics (PGen) Study, a prospective cohort study of direct-to-consumer personal genomic testing customers. *Genome Medicine* 6: 96. [CrossRef] [PubMed]
- Connell, Robert W. 1987. *Gender and Power*. Cambridge: Polity.
- Davidson, Kate, Tom Daly, and Sara Arber. 2003a. Older men, social integration and organisational activities. *Social Policy and Society* 2: 81–89. [CrossRef]
- Davidson, Kate, Tom Daly, and Sara Arber. 2003b. Exploring the social worlds of older men. In *Gender and Ageing: Changing Roles and Relationships*. Edited by Arber, Sara, Kate Davidson and Jay Ginn. Buckingham: Open University Press, pp. 168–85.
- Elis, Mabon. 2015. For the Record: DNA Clears the Vikings of Rape. *Sense about Science*. March 20. Available online: http://archive.senseaboutscience.org/for_the_record.php/177/quotdna-clears-the-vikings-of-rapequot.html (accessed on 1 November 2017).
- Evans, Tanya. 2011. Secrets and lies: The radical potential of family history. *History Workshop Journal* 71: 49–73. [CrossRef]
- Fortier, Anne-Marie. 2012. Genetic Indigenisation in ‘The People of the British Isles’. *Science as Culture* 21: 153–75. [CrossRef]
- Goodacre, Sarah, Angnar Helgason, Jayne Nicholson, Loz Southam, Laura Ferguson, Eileen Hickey, Emilce Vega, Kári Stefánsson, Ryk Ward, and Bryan Sykes. 2005. Genetic evidence for a family-based Scandinavian settlement of Shetland and Orkney during the Viking periods. *Heredity* 95: 129–35. [CrossRef] [PubMed]
- Haddow, Gillian. 2009. “We only did it because he asked us”: Gendered accounts of participation in a population genetic data collection. *Social Science & Medicine* 69: 1010–17.
- Halewood, Chris, and Kevin Hannam. 2001. Viking heritage tourism: Authenticity and commodification. *Annals of Tourism Research* 28: 565–80. [CrossRef]
- Hamilton, Jennifer A. 2012. The case of the genetic ancestor. In *Genetics and the Unsettled Past: The Collision of DNA, Race and History*. Edited by Wailoo, Keith, Alondra Nelson and Catherine Lee. London: Rutgers University Press, pp. 266–78.
- Harris, Anna, Sally Wyatt, and Susan E. Kelly. 2013. The Gift of Spit (And the Obligation to Return it) How consumers of online genetic testing services participate in research. *Information, Communication & Society* 16: 236–57.
- Hunt, Stephen J. 2008. But we’re men aren’t we! Living history as a site of masculine identity construction. *Men and Masculinities* 10: 460–83. [CrossRef]
- Jesch, Judith. 1991. *Women in the Viking Age*. Martlesham: Boydell & Brewer.
- Jobling, Mark A. 2001. In the name of the father: Surnames and genetics. *TRENDS in Genetics* 17: 353–57. [CrossRef]
- Jobling, Mark A., Rita Rasteiro, and Jon H. Wetton. 2016. In the blood: the myth and reality of genetic markers of identity. *Ethnic and Racial Studies* 39: 142–61. [CrossRef]
- Kenneally, Christine. 2014. *The Invisible History of the Human Race: How DNA and History Shape Our Identities and Our Futures*. New York: Viking.

- King, Turi E., and Mark A. Jobling. 2009a. Founders, drift, and infidelity: The relationship between Y chromosome diversity and patrilineal surnames. *Molecular Biology and Evolution* 26: 1093–102. [[CrossRef](#)] [[PubMed](#)]
- King, Turi E., and Mark A. Jobling. 2009b. What's in a name? Y chromosomes, surnames and the genetic genealogy revolution. *Trends in Genetics* 25: 351–60. [[CrossRef](#)] [[PubMed](#)]
- Kramer, Anne-Marie. 2015. The genomic imaginary: Genealogical heritage and the shaping of bioconvergent identities. *MediaTropes* 5: 80–104.
- Kroløkke, Charlotte. 2009. Click a donor: Viking masculinity on the line. *Journal of Consumer Culture* 9: 7–30. [[CrossRef](#)]
- Leslie, Stephen, Bruce Winney, Garrett Hellenthal, Dan Davison, Abdelhamid Boumertit, Tammy Day, Katarzyna Hutnik, Ellen C. Royrvik, Barry Cunliffe, Wellcome Trust Case Control Consortium 2, and et al. 2015. The fine-scale genetic structure of the British population. *Nature* 519: 309–14. [[CrossRef](#)] [[PubMed](#)]
- Mann, Robin. 2007. Out of the shadows?: Grandfatherhood, age and masculinities. *Journal of Aging Studies* 21: 281–91. [[CrossRef](#)]
- McEvoy, Brian, Claire Brady, Laoise T. Moore, and Daniel G. Bradley. 2006. The scale and nature of Viking settlement in Ireland from Y-chromosome admixture analysis. *European Journal of Human Genetics* 14: 1288–94. [[CrossRef](#)] [[PubMed](#)]
- Milestone, Katie. 2016. 'Northernness', gender and Manchester's creative industries. *Journal for Cultural Research* 20: 45–59. [[CrossRef](#)]
- Morning, Ann. 2014. And You Thought We Had Moved Beyond all That: Biological Race Returns to the Social Sciences. *Ethnic and Racial Studies* 37: 1676–85. [[CrossRef](#)]
- Nash, Catherine. 2004a. Genetic Kinship. *Cultural Studies* 18: 1–33. [[CrossRef](#)]
- Nash, Catherine. 2004b. *Of Irish Descent: Origin Stories, Genealogy and the Politics of Belonging*. Syracuse: Syracuse University Press.
- Nash, Catherine. 2012. Gendered geographies of genetic variation: sex, power and mobility in human population genetics. *Gender, Place & Culture* 19: 409–28.
- Nash, Catherine. 2015. *Genetic Geographies: The Trouble with Ancestry*. Minneapolis: University of Minnesota Press.
- Nelson, Alondra. 2008. Bio Science: Genetic Genealogy Testing and the Pursuit of African Ancestry. *Social Studies of Science* 38: 759–83. [[CrossRef](#)] [[PubMed](#)]
- Nelson, Alondra. 2016. *The Social Life of DNA: Race, Reparations, and Reconciliation after the Genome*. Boston: Beacon Press.
- Nordgren, Anders, and Eric T. Juengst. 2009. Can genomics tell me who I am? Essentialistic Rhetoric in Direct-to-consumer DNA Testing. *New Genetics and Society* 28: 157–72. [[CrossRef](#)]
- Nordqvist, Petra. 2017. Genetic thinking and everyday living: On family practices and family imaginaries. *The Sociological Review* 65: 865–81. [[CrossRef](#)]
- Nugent, Colleen. 2010. Children's surnames, moral dilemmas: Accounting for the predominance of fathers' surnames for children. *Gender & Society* 24: 499–525.
- Oikkonen, Venla. 2015. Mitochondrial Eve and the Affective Politics of Human Ancestry. *Signs: Journal of Women in Culture and Society* 40: 747–72. [[CrossRef](#)]
- Redmonds, George, Turi King, and David Hey. 2011. *Surnames, DNA, and Family History*. Oxford: OUP.
- Rutherford, Adam. 2016. *A Brief History of Everyone Who Ever Lived: The Stories in our Genes*. London: Weidenfield & Nicolson.
- Scully, Marc, Turi King, and Steven D. Brown. 2013. Remediating Viking origins: Genetic code as archival memory of the remote past. *Sociology* 47: 921–38. [[CrossRef](#)] [[PubMed](#)]
- Scully, Marc, Steven D. Brown, and Turi King. 2016. Becoming a Viking: DNA testing, genetic ancestry and placeholder identity. *Ethnic and Racial Studies* 39: 162–80. [[CrossRef](#)]
- Sommer, Marianne. 2012. 'Do You Have Celtic, Jewish or Germanic Roots?' Applied Swiss History before and after DNA. In *Identity Politics and the New Genetics: Re/Creating Categories of Difference and Belonging*. Edited by Schramm, Katharine, David Skinner and Richard Rottenburg. Oxford: Berghahn Books, pp. 116–40.
- Spracklen, Karl, Caroline Lucas, and Mark Deeks. 2014. The construction of heavy metal identity through heritage narratives: A case study of extreme metal bands in the North of England. *Popular Music and Society* 37: 48–64. [[CrossRef](#)]
- Taylor, Ian R., Karen Evans, and Penny Fraser. 1996. *A Tale of Two Cities: Global Change, Local Feeling, and Everyday Life in the North of England: A Study in Manchester and Sheffield*. London: Taylor & Francis.

- Thomas, Mark. 2013. To Claim Someone Has 'Viking Ancestors' Is No Better than Astrology. *The Guardian*, February 25. Available online: <http://www.guardian.co.uk/science/blog/2013/feb/25/viking-ancestors-astrology> (accessed on 22 April 2013).
- Tutton, Richard, and Barbara Prainsack. 2011. Enterprising or altruistic selves? Making up research subjects in genetics research. *Sociology of Health & Illness* 33: 1081–95.
- Tyler, Katharine. 2008. Ethnographic approaches to race, genetics and genealogy. *Sociology Compass* 2: 1860–77. [[CrossRef](#)]
- Wetherell, Margaret, and Nigel Edley. 2014. A discursive psychological framework for analyzing men and masculinities. *Psychology of Men & Masculinity* 15: 355–64.



© 2018 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).