“They want to know where they came from”:
population genetics, identity, and family genealogy

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ABSTRACT This paper discusses the changing relationship between population genetics, family genealogy and identity. It reports on empirical research with participants in a genetic study who anticipated that personal feedback on the analysis of their donated samples would elucidate aspects of their own family genealogies. The paper also documents how geneticists, building on the practices of offering personal feedback to research participants, have developed genetic tests marketed directly to people wishing to trace their ancestry. Some of the social and ethical issues raised by this development in the use of genetic testing are considered.

Appearing before a House of Commons Science and Technology Committee hearing on the Human Genome Diversity Project, the geneticist Walter Bodmer reflected on the public reaction to a BBC television documentary on the study of genetic variation in which he had been involved. He noted that: “the interest that was generated, the positive interest in this, people writing and wanting to find out about their own origins, was tremendous” (House of Commons, 1995, p. 124).¹ These comments immediately contrast with how, for much of the 1990s, the proposed Human Genome Diversity Project (hereafter “Diversity Project”) had been at the centre of an intense controversy, as advocacy groups on behalf of indigenous peoples across the world waged a vociferous campaign to prevent its initiation (Cunningham, 1998; Lock, 1999; Marks, 2001; Readon, 2001; Roberts, 1991).

With attention focused on this campaign, geneticists allied with the Diversity Project began to seek funding for the study of genetic diversity amongst European populations (Caralli–Sforza & Piazza, 1993). As Donna Haraway observes (with some irony), “Europeans were among the first indigenous peoples to proceed with HGDP research” (Haraway, 1997, p. 252). Compared with their North American colleagues, it can be argued that European population geneticists have been relatively more successful. During the 1990s, they received several million euros from the European Commission for a series of projects under an initiative called the “Biological History of European Populations” that attracted little if any controversy. Reflecting on this contrasting...
situation in Europe, a report in *Science* observed that “in many ways, conditions for the project are optimal in Europe [...] its easily accessible populations have reacted positively—the ‘historical sleuthing’ has captured the imaginations of many people with no special interest in science or the human genome” (Khan, 1994, p. 72).

A full account of the differences between the apparently “positive reaction” of European populations and the opposition faced by the organisers of the Diversity Project in other parts of the world is a complex matter and beyond the scope of this paper. The opposition that was mounted to the Diversity Project has been well documented, especially its “claim to authority” (Marks, 2002) to represent and speak for the genetic diversity of the human species (Marks, 2002; Harry, 1993; Reardon, 2001). But I argue in this paper that we can begin to understand the apparent success of the Diversity Project in Europe in terms of the remarks in the *Science* article about “historical sleuthing”.

In newspaper or magazine reports and television documentaries, population geneticists are often depicted as uncovering secrets about the past, resolving long-debated questions about origins, or tracing continuity between people living today and their ancestors. These representations should be seen alongside a continuing popular fascination with the past that has characterised contemporary European and North American societies for at least the last thirty years. This has taken various forms, from the prevalence of historical documentaries and period dramas on television, the growth of museums and heritage sites, visits by tourists to “historic” towns and cities, country parks, museums, or restored steam railways, to the increasing number of people who research their family genealogies on the Internet. This popular fascination with the past has been associated with broader social, economic and cultural transitions across Western societies (Boissevain, 1996; Harvey, 1994). In Britain, the “rise of heritage” as a significant cultural and economic discourse has been linked with debates about national identity, the commodification of culture, economic decline, social change and the resurgence of local identities (Hewison, 1987; Macdonald, 1997; McCrone, Morris & Kiely, 1995; Samuel, 1999; Wright, 1985).

In this paper I claim that the “positive reaction” of European populations to the study of their genetic diversity as reported by Bodmer and in the pages of *Science* should be seen in terms of this popular interest in the past. I am not suggesting that European populations are alone in this reaction since in North America there is an equally strong interest in the past and no doubt many people there also responded positively to the “historical sleuthing” of the Diversity Project. However, given the limitations of my empirical research I will confine my comments, certainly in the first part of this paper, to Europe. I focus on family genealogy as one particular aspect of the fascination with the past. Research into family genealogies has become increasingly popular and is now a notable commercial enterprise with the proliferation of web-based databases of census and other life-course related records, self-help guides, genealogy enthusiast publications, and computer software to help design and organise family trees.

In the last decade there has been significant sociological and anthropological
research into the implications of lay conceptions of family, kin and inheritance for public understanding of scientific accounts of heredity or genetic risk (Richards, 1996a, 1996b, 1996c, 1997), the way family trees are used in “clinical encounters” to frame genetic knowledge and risk (Gibbon, 2002; Yoshio, 2002; Yoshio & Cambrosio, 1997), and the potential impact of genetic knowledge on how ethnicity, nationhood or other collective identities are conceptualised (Elliot & Brodwin, 2002; Brodwin, 2002; Palsson, 2002; Simpson, 2000). There is concern that the use of DNA to define human similarities and differences may reinforce essentialist accounts of various kinds of identities (Simpson, 2002). In particular, analysis of Y chromosome and mitochondrial DNA (mtDNA) haplotypes by population geneticists to establish historical connexions between populations as well as by commercial companies to determine the “genetic ancestry” of individuals, has been highlighted in terms of the limitations of this kind of genetic information and its effect on people’s sense of themselves (Elliot & Brodwin, 2002).4

The emergence of national genetic databases has also prompted a consideration of how assumptions about genealogies and identities may be challenged by genetics. Gisli Palsson (2002) discusses the way that the genealogies of the Icelandic population are being transformed by their inclusion alongside DNA samples and medical data in the Icelandic Biogenetic Project. In Iceland there is an extreme interest in genealogy that Palsson accounts for in terms of the availability of extensive genealogical records, a nostalgia as elsewhere in Europe for a rural past, and what Kaja Finkler calls the “medicalisation of kinship” (Palsson, 2002). One implication of the way that the Icelandic Biogenetic Project is combining genealogical and genetic information is the emergence of a “new imagined genetic community of Icelanders” that reinforces certain notions of “Icelandicness” associated with the Viking past, creating a “narrow genetic notion of citizenship” (ibid., p. 355) that excludes recent immigrants to Iceland.

This paper contributes to this developing body of research on the impact of population genetics on genealogies and identities. In the first part of the paper I explore the interaction between population genetics and family genealogy, discussing a series of interviews with participants in a genetic study in Orkney. The population of these islands in the north of Scotland has by all accounts reacted positively to research on their genetic diversity. In Orkney, as in Iceland, there is an intense interest in genealogy and I address the ways that these participants related their involvement in the study to an interest in their family genealogies. In the second part, I outline how the relationship between genetics and family genealogy is potentially changing by looking at the issues raised by the genetic testing services set up by geneticists to realise the commercial potential of the popular interest in genealogical research.

Public participation in population genetics

The BBC science documentary, “Sir Walter’s Journey”, to which I referred at
the outset of this paper, has probably been the most notable popular representation of population genetics in a European and specifically British context. Taking the form of a personal travel narrative, the geneticist Sir Walter Bodmer is shown leaving his laboratory in London to visit Pembrokeshire, Cumbria and Orkney, each location chosen for what it reveals about the “genetic patchwork of this island nation” (McKie, 1993). The purpose of the journey is to uncover genetic evidence of the “original Britons”, the Palaeolithic hunter-gatherers who inhabited this part of Europe before the arrival of the Neolithic agriculturalists around 6000 years ago.

A notable part of the documentary is its representation of a genetic study that Walter Bodmer, with his colleagues Julia and Helen Bodmer, organised in Orkney. This location is chosen because it is expected that the population is still relatively isolated, so the genetic effect of the “first farmers” should be limited compared with the rest of the country. However, there is ample evidence of the Vikings who governed these islands until 1468. To ascertain whether the Orcadians are descendants of the “original Britons” or the Vikings, Bodmer organises a collection of samples, appealing on the local radio station for volunteers to participate in what is billed as a “genetic study of Orkney history”. The preliminary results are communicated by Bodmer in the BBC documentary. They indicate that the Viking heritage in Orkney is likely to be more cultural than genetic, with some unique markers being suggestive of an older, more isolated indigenous population in Orkney (Horizon, 1994; Bodmer et al., 1996, 1999; cf. Wilson et al., 2001).

The Orkney public are represented in the documentary as being “fascinated by their past” (Horizon, 1994, p. 15). Bodmer notes that they are extremely interested in “their origins—are they really Norse men or women, or do they go back to the Celts and the early agriculturalists? They want to know” (ibid., p. 3). This representation leads Marek Kohn (1996) in his commentary on the programme to consider that the participation of the Orkney public in Bodmer’s research is indicative of how communities across Western Europe would respond to this kind of research. He observes that they appeared “united in their willingness to provide blood samples and their fascination with the findings. Keen to know where they came from and what makes them special, they helped science without payment” (Kohn, 1996, p. 249).

The emphasis in the documentary is on knowledge about collective origins, and, after the study was completed, Bodmer, given his central role in the BBC documentary, attended the annual Orkney Science Festival to feedback the results of the study, addressing their implications for the population as a whole. However, at the time of the study participants were offered an opportunity to receive personal feedback on the analysis of their individual sample in terms of what this indicated about their personal ancestry.

The offer of personal feedback is common practice in population genetic studies. For example, one geneticist who had conducted research under the “Biological History of European Populations” initiative, commented that he likes to ensure that participants receive “something in exchange” for their
cooperation. This tends to be tests such as those for cholesterol, which he perceives as part of the reciprocal exchange between researcher and donor (for further discussion of exchanges in the context of tissue donation to genetic research, see Hoeyer, 2002; Tutton, 2002). Interestingly, he cautions against relating the genetic information derived from a person’s samples to their possible origins. He notes that:

This is a difficult, a very difficult problem. We can tell, OK, you are LH Negative, or H Positive or something like that because this is information they have the right to have. But to label people by their blood is a very dangerous kind of approach, usually we don’t, because it’s very difficult in any case.

Despite the view of this geneticist, participants in the Oxford Genetic Atlas Project that was run out of the Weatherall Institute of Molecular Medicine, also received personal feedback that related how their individual genetic characteristics linked to the known geographical origins of the various Y haplotypes charted by researchers. Although practices may differ across labs, we can conclude that some kind of feedback is usually offered and received in these kinds of population history studies.

In the following section, I explore how some of the participants in the study in Orkney reported that their willingness to donate a blood sample came from an interest in their family genealogy. Focusing on those individuals who requested personal feedback, I suggest that they conceived of their participation as a reciprocal exchange, donating a blood sample at least partly in expectation of receiving information in return about their ancestry.

**Population genetics and family genealogy**

My research involved conducting semi-structured interviews with a self-selecting sample of fifteen of the 157 participants recruited for the genetic study. Through these interviews I was not seeking to access an unmediated reality compared to the representations of the TV documentary. As I have noted elsewhere (Tutton, 2002), I treat these interviews as very much enmeshed within representation: I read them in terms of how respondents might represent themselves and their community to me, a southern English, white, male social science researcher from an urban background. In this discussion I look at two different groups of respondents: firstly, those who already had substantially documented their genealogies and those who were interested in exploring rather more speculative genealogies that had yet to be “proven”.

In this first group, Valerie reported that her main interest in the study related to her family history about which she already possessed a great deal of knowledge:

I was quite interested...and, well I know that our family came from Northumberland to North Berwick, and from North Berwick up to
Caithness, from Caithness they came across to Shapinsay, farm workers, and from Shapinsay to the Kirkbister Mill in Offa where the waterworks are...so... Well, I thought that it would verify the fact that it was Northumberland where we came from and just thought, well, there was no harm in finding out more if there was more to find.

She perceived the study to be offering an opportunity for her to verify this genealogy. Interestingly, she claimed to know that her ancestors came from Northumberland and yet she still took part in the study when its aim was to address whether the Orcadians were descended from “original Britons” or “Vikings”. It is not possible to comment on how long ago Valerie’s ancestors came from Northumberland to settle in Orkney, or whether this invalidates the sample that she gave. But her claim that she was motivated by her expectation that the study would verify her Northumberland ancestry when it was presented to her as being to determine the influence or otherwise of the Norse, is of particular interest. It indicates an understanding of genetic research as being similar to family genealogical research in that it could provide such highly individualised information.

Valerie’s desire to discover more about her personal ancestry was shared by Ingrid who reported that her participation related to:

Well, my background, heritage. Yes, on my father’s side came over from Norway, quite a long time ago, yes, well through the name I can trace it back you know, my grandmother’s name on my father’s side and the [name omitted]. Well, really let me see that it was, you know, that I did have Norse blood, or whatever it’s called.

Ingrid was particularly proud of her family history and its connexions, through her father’s family, with Norway. She had visited the small town in Norway whence her ancestors originated. She thought that the study might provide proof of her “Norse blood”. On the theme of the Norse, Rachel referred to how a relative had played a part in persuading her to participate:

There was a relative of mine that was going in as well, and she was quite keen that I should go. I have...well, we go back quite a long way, we’re an old Orkney family and I thought that maybe the Norse connexion might...we might find out more about it, so that’s really how it came about.

While these three respondents had a good deal of knowledge about their family genealogies, and were expecting some form of verification or “proof” of these genealogies, others laid claim to more tantalising, less well documented, and even exotic genealogies. Three other respondents commented on the possibility of their having Spanish ancestors as lying behind their participation in the study. Prentice reported that:

They asked if we wanted to be kept in touch, and of course we said yes, because I was interested in my own, because they used to say that there
was quite a bit of Spanish blood in me, whether that was true or not I can’t tell you, but I thought it might have come out in this test. Well, it’s just hearsay, they used to say that my father was a pure Spaniard, you see, he had the aquiline nose but I don’t know whether that…if there’s really Spanish blood in him or no. It’s just...just a hearsay.

Irene reported a similar interest in the study:

Just being inquisitive, find out as my father always said that we were Spanish. He always swore that we were from the Spanish Armada, so I thought we would find out. That’s really it.

Ronald also reported that:

My mother is...when she was younger, she had very black hair and people with black hair here, people say oh you must be descended from the Spaniards who were lost in the Armada, they were swept down the west coast. So that part of it...titillates your thoughts a little bit...what are all these different factors coming together to make us who we are?

These possible family genealogies are inextricably linked with local history and folklore. The references to Spanish ancestors by these three respondents relate to stories that circulate in Orkney about surviving ships of the Spanish Armada, which, after being routed in the English Channel, were forced to return to Spain around the north coast of the British Isles to escape the English navy. According to these stories, some ships foundered on the west coast of Orkney, particularly on the island of Westray, and the survivors, apparently welcomed by the indigenous population, settled on this island and possibly some others (Linklater, 1984). In support of their possible Spanish descent, Prentice and Ronald both draw on a kind of racial folk typology that references various people’s comments about the physiognomic characteristics of their parents.

In contrast, Michelle reported that she had an interest in discovering whether she had some “American Indian” ancestry. Again, this speculation was prompted in part by remarks made about her father’s physical appearance:

I know some...there was a person used to tease me husband about us being related to the American Indians. But I don’t really see it...I’ve never tried to trace that, but there is a lot of folk who went to Hudson Bay, working Hudson Bay, and I know some of me forebears was out there, but I’ve never traced through the records yet. I just thought they might get more individual, you know, that they might come back and say no, it canna be that, you know, they might come and say, oh yeah, you’ve this sort of blood [...] or you could be, you know, ancestors of, you know, but it’s more sort of just population movements in Europe and that.

Michelle also knew that an ancestor had been in the employment of the Hudson’s Bay Company in Canada, which had been based in Orkney for over
two hundred years, and this added weight to the possibility of her having a possible Cree-Indian or Inuit ancestor. I also include here Rebecca’s response because, in contrast to the other respondents, she claimed that her interest in genealogy was not the spur for her participation in the study. She reported no clear reason for her willingness to donate a sample to the study:

They wanted people to do it, and it didn’t bother me giving blood, so I went ahead and did it. There’s no big great interest, I just thought I’d just go round and do it, I wasn’t really phased by it, so we just went along and that was it, no problem. I knew where all my ancestry’s from, so I wasn’t really caring too much what results that they would get. It’s just because they wanted folk to do it, and as I say it didn’t bother me giving blood, so that’s why we all went along and it was only a couple of hours, and it was a fine bonnie day. That had nothing at all, didn’t influence one bit of going.

From this response, it seems that Rebecca, with her knowledge of her family genealogy, considered the findings of the study to be of little relevance to her. The contrast between Rebecca and the other respondents on the issue of their participation in relation to questions of family genealogy, indicates the complexity of the responses that belies the simple representation in the BBC documentary of a population willing to take part because “they want to know where they came from” (Horizon, 1994). As I have addressed elsewhere, respondents also discussed their participation in terms of notions of altruism, reciprocity and identification with the community (see Tutton, 2002).

Therefore, all but one of the respondents I included above anticipated that personal feedback on their samples would illuminate some aspect of their personal ancestry. From reading these responses, the relationship between discourses of family genealogy—interweaving folk traditions with archival research and family stories—and population genetics is a particularly interesting one. Through the promise of personal feedback, respondents saw their participation as a way of gaining highly individualised information that would either prove already substantiated genealogies or offer important evidence for less well-documented ancestries.

I cannot comment on whether the researchers would have been able to address each of the respondent’s interests by providing the kind of individualised analysis that respondents seemed to imagine. I suspect that the issue may be one of resources given that the study was undertaken with a very specific set of questions to address. Moreover, it should be noted that the study was funded as part of Bodmer’s research in the Cancer and Immunogenetics Laboratory at the Imperial Cancer Research Fund (ICRF). This accounts for why analysis of the samples concentrated on the Human Leucocyte Antigen (HLA) system because this provides important information about tissue-matching and immune responses to various cancers (Bodmer & McKie, 1995). The study of the distribution of HLA polymorphisms amongst populations has been an important part of the research at the laboratory.
These participants’ expectations of individualised information relates to a wider observation one can make about the differing perspectives of researchers and research participants in relation to genetic studies. These differing perspectives can be understood by considering Amade M’charek’s (2002) remarks that there is a fundamental difference between genetic and genealogical practices when it comes to constructing ancestry for different purposes. The genealogist works from the starting point of an individual and, going back in time, increases the parameters of relatedness to include as many people as possible. By contrast, the population geneticist begins with as large a number of DNA sequences from the extant population as possible and seeks to reduce through time the number of sequences until a most recent common ancestral sequence has been identified, as in the case of the so-called “Mitochondrial Eve” (Cann, Stoneking & Wilson, 1987). The varying ways that respondents in the study in Orkney relate their participation to questions of their family genealogies demonstrate this important difference between the perspectives of family genealogists and population geneticists. These different perspectives are also linked to how representations of genealogical relationships are produced by population geneticists and family genealogists. Palsson discusses some the different ways that genealogists and geneticists associated with the Icelandic Biogenetic Project have represented the genealogies of Icelanders (see Palsson, pp. 341–3, 351–5).

Despite the apparently different vantage points of population geneticists and family genealogists when it comes to constructing ancestry, genetics is being increasingly promoted as a valuable tool in genealogical research. This could entail a potential transformation in the way that genealogies are understood and depicted. Since the study that Bodmer undertook in Orkney, geneticists have recognised that their research on the distribution of Y chromosome and mtDNA haplotypes amongst populations has commercial value. Building on the practices of offering personal feedback to research participants, some geneticists have been involved in forming companies that offer genetic testing services to people wishing to trace their family genealogies. In the following part of this paper, I focus on this particular development.

**Genetic genealogy**

In the last few years a number of private companies have been formed to exploit the popular interest in researching family genealogy. In Britain, the population geneticist Bryan Sykes at the Weatherall Institute of Molecular Medicine in Oxford set up a web-based company called Oxford Ancestors, whose by-line is “putting the genes into genealogy”. It promises to “harness the power and precision of modern DNA-based genetics for use in genealogy” (<www.oxfordancestors.com>). The services offered by this company are based on research that Bryan Sykes has been involved in over the last decade on the association between Y chromosome haplotypes and male surnames (Sykes & Irwen, 2001) and variations in mtDNA (mitochondrial DNA) (Helgason *et al.*, 2000). It offers two main services to its customers: the first is MatriLine™;
that links the mtDNA sequence of the customer to one of the twenty-seven most recent common ancestral mtDNA sequences across the world. The women from whom these sequences have been inherited are dubbed by Sykes the “daughters of mitochondrial Eve” (see below), and the customer is asked to discover which “daughter is your ancestor?” The other main service is Y-Line™; that uses the association between Y chromosome haplotypes and surnames to assist in the identification of male ancestors.

In the United States, companies such as Family Tree DNA (www.familytree dna.com) and Relative Genetics (www.ancestry.com) provide similar services. For example, Relative Genetics, which has signed an agreement with the US online genealogy database service Ancestry.com, promises that “the science of DNA analysis is an amazing new tool that many genealogists can benefit from in their efforts to link families together”. This company offers a number of different “Paternity and Maternity Ancestry Signature” tests: individuals can seek to match their “DNA signatures” with those stored on an increasing number of databases; two or more individuals can undergo testing together to determine if they are related to each other; families with the same or similar surnames can use the analysis of Y chromosome haplotypes to determine their relatedness; and, more controversially perhaps, individuals can try to establish their ethnic origins. This service is based on the claim that there are certain “mtDNA signatures” which distinguish Native Americans.

These companies all offer genetic tests direct to the public. Customers use a cheek cell swab kit that is sent to them in the mail, and which they return to the company concerned for analysis. Results are either securely accessed online or received through the mail (in the case of Oxford Ancestors in a format suitable for framing). Unlike medically-related genetic tests that have recently been the subject of inquiry by advisory bodies such as the Human Genetics Commission (HGC) in Britain (HGC, 2002), these tests involve looking at non-coding regions of DNA (or “junk DNA”) from which no medically-relevant information can be derived. As the HGC states, there are no current laws that regulate a company selling any kind of genetic test direct to the public in terms of laboratory standards. In Britain at least, such tests are presently covered by consumer and personal data protection legislation (HGC, 2002). Although the tests produced by Oxford Ancestors, Relative Genetics, and Family Tree DNA may not reveal medical conditions, informed decision-making, confidentiality, and the way results are understood are still pertinent issues.

All three companies stress the importance of customers making informed decisions about the genetic testing they are undertaking, and describe the process involved. On the one hand, this is simply about facilitating consumer choice, for example ensuring that a sample from a female customer is not submitted for Y testing. However, Oxford Ancestors does caution its customers that Y testing can reveal nonpaternity and that they should be aware of this possible outcome when deciding to purchase a Y-Line™ testing kit.

The concern about confidentiality was recently voiced by the US journalist Erick Schonfeld (2002), who relates how he had been approached by someone
sharing his family name requesting that he undergo genetic testing so that he could determine whether they had a common ancestor. Schonfeld’s concerns seem mainly to do with the storage of samples and genetic information and whether the courts or other law enforcement bodies may be able to access them. He remarks that “after all, this isn’t a credit card or Social Security number we’re taking about. It’s a biological blueprint of who I am” (Schonfeld, 2002). Schonfeld’s anxieties about court access are perhaps understandable given that geneticists working on Y-surname association studies claim that this research will be beneficial for both forensic and genealogical purposes (Jobling, Pandya & Tyler-Smith, 1997). While Relative Genetics does maintain a genetic database that permits people to anonymously match their DNA profiles with others, Oxford Ancestors destroy the DNA provided by their customers once the results of their tests have been mailed out.

On the issue of how customers understand the results of tests, Relative Genetics states that these do not generate a “unique personal genetic fingerprint” which can be used to identify the individual concerned. In contrast to forensic testing, genealogical testing is concerned with shared rather than individual DNA, whether at the level of a “family fingerprint” or, in the case of mtDNA testing, with the “clans” of the seven daughters of the mitochondrial Eve—Helena, Jasmine, Velda, Tara, Xenia, Ursula, and Katrine—that have tens of millions of members.

The limitations of these kinds of “genetic ancestry” tests are discussed by Carl Elliott and Paul Brodwin (2002). They note that both Y chromosome and mtDNA produce a very limited picture of an individual’s ancestry. Y, for example, will connect a man to his father and to only one of his four grandparents and only one of his eight great-grandparents, and so on: “to continue back in this manner for fourteen generations [...] the test will not connect him to any of the other 16,383 ancestors in that generation to whom he is also related” (Elliott & Brodwin, 2002, p. 1470). Therefore, the use of Y or mtDNA produces only a partial account of an individual’s genealogy that could privilege one particular ancestor over many others. Given that in many parts of the world, especially those affected by European colonization over the last five hundred years, different people have very entangled genealogies, the result of a Y or mtDNA analysis could belie a greater historical complexity. Indeed, Elliott and Brodwin are concerned about the authority that genetic tests of this kind might have compared with other historical and documentary sources.

Amongst genealogists there has been a mixed reaction to the value of population genetics for genealogical research. One genealogist, Donn Devine, acknowledges the limitations and the potential of genetic testing when he comments that “[genetic] tests now available won’t solve all of our research problems, but they can be extremely useful in selected cases to confirm family traditions of relationships or research hypotheses where there are no records that can lead to a more convincing conclusion”; (Devine, 2000). A more enthusiastic line is taken by Alan Savin (2000, 1998), life-long genealogist and member of
the Institute of Heraldic and Genealogical Studies in Britain. He claims that
genetic information is a more enduring record of genealogical relationships than
traditional sources such as census data or parish records, and therefore should
be embraced. He notes that “the evidence from centuries past is carried in all
of us in our genes today and cannot be lost like written records” (Savin, 1998).
Drawing a parallel with personal computing, he looks forward to a time when
genetic information will be the genealogist’s primary source and when the
technology of DNA analysis will be commonplace and usable by lay people. To
that end, Savin has collaborated with researchers at the Center for Genetic
Anthropology at University College London to develop further the ways that
genetic research can be applied to genealogical investigations.

Conclusion

In the context of the Icelandic Biogenetic Project, Palsson strikes a cautionary
note about how the combination of genealogical, genetic and medical infor-
mation could create new forms of “imagined genetic communities” (Simpson,
2000) while reinforcing older patterns of exclusion or inequality. From the
research reported on in this paper amongst participants in a genetic study, who
donated a blood sample as a result of an interest in their family genealogies and
from the expectation of personal feedback that would further elucidate these
genealogies, we may draw different conclusions. Rather than looking to have
some essential Orcadian identity confirmed, some participants talked of
genealogies that would place them in relation to other parts of the world. This
did not undermine their strong identification as Orcadians as many also saw that
to be Orcadian could mean to be a composite of many different elements. This
might suggest that we need to consider the specific social and cultural contexts
in which genetic knowledge is embedded and the way that it interacts with
different kinds of knowledge. It also highlights that we need to pay attention to
the processes by which people identify with certain subject-positions (Hall,
1997b).

On the issue of the significance of genetic knowledge in relation to other
sources such as archival records, family stories or folklore, most respondents
thought that the personal feedback on the sample would either complement
what they had gleaned from these sources or provide proof of more exotic and
less well-documented ancestries. If this feedback did not corroborate other
sources it is not clear to which more weight would have been given – the
“scientific” account derived from genetic analysis or folklore, family stories,
genealogical records. It is an intriguing and open question.

The authority of genetic test results of the kind provided by the kinds of
companies I discussed in the second part of this paper concerns Elliott and
Brodwin. They suggest that such tests could in the future “be embraced by the
courts, the media and various political institutions as the most authoritative
measure of identity” (Elliott & Brodwin, 2002, p. 1471). The most contested
aspect of this testing is likely to be with respect to ethnicity where there are
already conflicting statements about whether one can genetically define ethnic groups in any meaningful way. There is concern that in this context the use of DNA testing will support essentialist and exclusionary identity claims as recent events in Tasmania seem to support (see Marks, 2002; see also Brodwin, 2002; Lock, 1999).

Research into the impact of population genetics on genealogies and identities highlights key issues about the position of genetic knowledge in contemporary society and its influence on the way that people see themselves and others. As well as the development of large-scale genetic databases such as the Icelandic Biogenetic Project, an important focus of investigation should be the uptake of genetic ancestry tests by people who research their family genealogies. This is one immediate site in which to explore the potential future impact of population genetics on genealogies and identities in the 21st century.

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Notes

1. It is of interest to note in relation to Bodmer’s comments that a People’s Panel survey commissioned by the UK Human Genetic Commission (HGC) found that on the question of the appropriateness of using personal genetic information for different purposes, the study of evolution, ancestry and population history scored the lowest of 80% compared with clinical/therapeutic research for the benefit of future generations 86%, and 87% for the medical treatment of individuals (HGC, 2001, p. 31).

2. For examples of television documentaries see “Blood of the Vikings” a five part documentary broadcast in 2001 on BBC TV, “Sir Walter’s Journey” and “Motherland” shown on BBC TV late 2002, which I discuss in this paper (Kohn, 1996; Cross, 2001).

3. In January 2002, the Office of National Statistics made available the 1901 British census on the Internet. Although designed to manage 14 hits per second, the site soon crashed under the pressure of over a million people attempting to access its resources in just a few hours. Evidently, the opportunity to trace their ancestors, or even to see who was living at their address a hundred years ago, interested a great many people.

4. Both Y chromosome and mtDNA are attractive genetic systems for the purposes of population genetics because they tend to be inherited relatively intact through the paternal and maternal lines respectively. For further discussion see Bradman & Thomas (1998), Cann et al. (1987), Jobling et al. (1997).

5. This was a self-selecting sample of donors who responded to my appeals in the local media for assistance with my research. Therefore it is unlikely to be representative of that original cohort. However, I was less concerned with achieving a representative sample than with exploring what it meant to participate in this study for these fifteen individuals (Tutton, 2002).

6. My approach to representation follows that outlined by Stuart Hall (1997a) who states that: “social actors [...] use the conceptual systems of their culture and the linguistic and other representational systems to construct meaning, to make the world meaningful and to communicate about that world meaningfully to others” (Hall, 1997a, p. 25).

7. For an account of the “seven daughters of Eve” see Sykes (2001).
References


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