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Chapter Nine

Importing Forensic Biomedicine into Asylum Adjudication: Genetic Ancestry and Isotope Testing in the United Kingdom

Richard Tutton, Christine Hauskeller, and Steve Sturdy

When refugees apply for asylum, they have to relate a narrative of their persecution in their country of origin. Evaluating the veracity or otherwise of these narratives is central to the asylum adjudication process. Over the past decade or so, determination of national identity has become vitally important in assessing whether someone claiming the right to asylum is a legitimate refugee or an economic migrant. Border agencies have focused increasingly on the possibility that economic migrants might pose as citizens of particular countries in order to gain access to Britain as recognized refugees. This phenomenon has become known as “nationality swapping.” Border control agencies have introduced several methods to eliminate supposed pretend asylum seekers. In this chapter we discuss the Human Provenance Pilot Project (H.P.P.P.) conducted in 2009–10 by the U.K. Border Agency (U.K.B.A.) that investigated the utility of genetic ancestry and isotope testing as means of corroborating refugees’ nationality claims. At its launch, the H.P.P.P. was heavily criticized by leading scientists, journalists, and parliamentarians on scientific as well as ethical grounds. In response, the U.K.B.A. scaled it back to a small pilot study that came to an end in spring 2010. Over a year later, in June 2011, the U.K.B.A. finally announced that the tested techniques would not be introduced into asylum procedures, at least for the time being.¹

The use of molecular biological techniques for determining nationality – an exclusively political category – is clearly a highly problematic endeavor. The fact that the U.K.B.A. should have taken an interest in using such technologies in the first place, and then persisted with trialing them in the face of concerted scientific opposition, appears at first sight to be rather surprising. However, closer analysis reveals that the Border Agency’s turn to these technologies is quite in keeping with the increasingly prejudicial tenor of asylum policy and practice within the United Kingdom. As we show in this chapter, the molecular technologies of genetic ancestry and isotope testing had previously been employed for forensic purposes in criminal investigations, and they were imported into asylum adjudication directly from that context. Their adoption by the U.K.B.A. is indicative of a growing tendency on the part of the British immigration authorities to adopt forms of expert inquiry and knowledge production developed originally for purposes of criminal investigation, and to redirect that expertise to the work of challenging asylum seekers’ personal testimony.

This chapter situates and examines these events in the context of changing immigration and asylum policies in what is often referred to as “Fortress Europe.”² The entanglement of border control technologies and immigration policies and practices with discourses of race, national identity, and belonging has long been a focus of scholarly interest (Fox et al. 2012). Official and popular attitudes to those who request sanctuary have become dominated by a hermeneutic of suspicion. Public and policy discourse portrays them as mostly ‘bogus’ refugees who seek admission to the country for economic, not humanitarian reasons. This attitude shapes the practices and technologies of border control. We argue that the H.P.P.P. is only one move in a wider campaign to

subject vulnerable individuals to biometric and other identification practices established in the treatment of crime suspects. This interpretation is supported by other researchers who have also pointed out how increasingly exclusionary immigration policies, and an increasingly close integration of immigration with criminal law, have tended towards de facto criminalization of asylum seekers in both Europe and North America (Arat-Koc 1999; Miller 2003; Silveira Gorski 2008; Schuster 2011). The importation of forms of expertise developed specifically for the purpose of investigating criminal behavior is part of a wider de facto criminalization of asylum applicants that suspends their basic human rights until proven innocent of lying and nationality fraud. Meanwhile, increasingly exclusionary border controls have fuelled the business of human trafficking, because it has become so difficult for refugees to reach a safe country with minimal risk to personal safety and without loss of identity, dignity and the power of self-determination. While so far unsuccessful, the H.P.P.P. contributed to a vicious circle of criminalization and victimization of asylum seekers. The H.P.P.P. also shows how asylum seekers' testimonies of persecution, and of why and how they came into the country, are replaced more and more by impersonal methods of assessing eligibility. Border controls rely on new forms of expert testimony that distort the standards and principles originally envisioned by the process of refugee status determination.

The Recent History of U.K. Border Control

Although migration and providing refuge to victims of persecution are different legal, administrative, and moral categories, in the British context asylum and the wider debates about migration have become closely related in public discourse.³ Both are highly politicized, and their history is worth outlining briefly in order to set the historical context

of the H.P.P.P. In the United Kingdom, the 1905 Aliens Act marked the inception of a modern apparatus of border control as a response to growing migration by Jews fleeing persecution in Eastern European countries. This and subsequent measures built up a distinction between British subjects and aliens, individuals who do not owe allegiance to the British crown. In the aftermath of World War II, United Nations Conventions on Human Rights (1948) and the Rights of Refugees (1951) were signed and ratified by the United Kingdom. These conventions enshrine the right to refuge and protection from persecution for all humans. In the 1950s and 1960s, however, the British economy faced a shortage of labor in certain areas and people from the Commonwealth, specifically from the Caribbean territories, were actively encouraged to migrate to Britain as guest workers. Analysis of Cabinet discussions of that time indicates that “colour was at the root of the government’s objections to West Indian workers” migrating to Britain in the 1950s (Clayton 2012: 9). Despite such objections, tens of thousands of people migrated from Commonwealth states to Britain where they faced varying degrees of hostility. New laws were enforced to counter discrimination, whilst simultaneously a series of legislative interventions aimed at preventing the continued migration of people from certain Commonwealth countries were also enacted. The 1962 Commonwealth Immigrants Act distinguished between persons who were born in the United Kingdom or the Republic of Ireland and held passports issued by those countries and persons who did not. In practice, however, guidance provided to immigration officers indicated that the new law did not apply to white migrants from Australia, Canada, New Zealand, and South Africa who faced fewer obstacles in gaining entry. Subsequent legislation such as the 1968 Commonwealth Immigrants Act, the 1971 Immigration Act, and the 1981 British

Nationality Act, led to a fundamental change in the principles on which citizenship and rights of migration were founded, away from place to birth (*jus soli*) to “blood relations” (*jus sanguinis*). The right to family in the Human Rights Convention is one pillar on which the immigration of family members was based, and led to the introduction of genetic testing to confirm biological kinship in the immigration context in Britain in the 1980s.

Since the early 1990s, the legitimacy of those applying for asylum has been a hot political issue and the perennial interest of right-wing tabloid journalism using an aggressive derogatory rhetoric. Journalistic commentators argue that the British tabloid press came increasingly to depict asylum seekers as a separate minority group.

They have been made into scapegoats for a variety of society’s current ills [...] To this end, editors have sought to forge a unity of viewpoint between the indigenous white population and second and third generation Afro-Caribbean and Asian immigrants in opposition to asylum-seekers, of whatever race or creed. (Greenslade 2005: 6)

In a context in which immigration policy has become increasingly concerned with distinguishing “deserving” from “undeserving” migrants, the status of asylum seekers has become particularly fraught (Flynn 2005; Sales 2005).

There have been various well-publicized interventions to “crack down” on “bogus asylum seekers” by both Conservative and Labour administrations, whose measures have included reducing the benefits given to asylum applicants and a firmer approach to the detention and deportation of rejected applicants (Campbell 2012). Steadily rising numbers between 1990 and 2000, and changes in regulation that prevent asylum seekers

from earning their living and make them dependent on state welfare and benefits, led to massively rising public costs. In response, new policies were established including the detention of asylum applicants in detention centers if their claim is considered to be decided quickly. Moreover, under U.K. law, illegal entry into the country is now a criminal act. Consequently, use of the expertise and infrastructure provided by traffickers in order to arrive in a safe country further taints perceptions of migrants' integrity (Koser 2000). Official statistics show that the number of asylum applications to Britain has declined significantly over the last ten years, due in part, one might assume, to the effectiveness of some of these interventions. However, the debate about "bogus asylum seekers" has not lost force in public and policy discourses in a time of economic crisis and austerity measures.

British policies mirror those followed in other European countries (Geddes 2003; Flynn 2005). Developments in E.U. immigration policy since the early 1990s have tended to limit the rights of refugees to enter the E.U. in order to seek asylum, and the policy that visa and entry documents should be applied for in the relevant embassy in the home country prior to travel, rather than upon arrival in the United Kingdom, places additional barriers for those who face indifference, hostility, or persecution from the authorities in their home country (Guild 2010). Asylum seekers are increasingly suspected of illegitimately claiming political persecution (Lynn and Lea 2003) and individuals in need of refuge face bureaucratic procedures that make it more difficult to leave one's country and reach a safe destination. One result of bureaucratization and the tightening of immigration rules in Europe has been an increase asylum seekers' reliance on clandestine methods of entry (Schuster 2011). Those seeking asylum in Europe depend more and

more on professional traffickers who are paid for providing transportation and often-forged passports and identity documents. Traffickers are ‘experts’ on immigration policies, suitable travel routes and border control practice and often choose the country of arrival according to recent policy developments and practicalities. This leads to the separation of families or friendship networks. Asylum seekers report in interviews that they feel a lack of control about which country they go to and how. This weakens their confidence and their chances of integration into a new culture and society (Healey 2006; Korac 2003).

In 2007, the British government reorganized its border control services and formed the U.K. Border Agency. This agency initiated a £1.2 billion “e-borders” program that accelerated the adoption of biometric and other new technologies in order to further enhance border control. The British government claimed that it was involved in “delivering the biggest shake-up of border security and the immigration system in a generation” (Cabinet Office 2009: 97). Nick Vaughan-Williams (2010) argues that identity management has become central to how the British Government has conceptualized border control. A 2007 U.K. Home Office White Paper states that “managing identity is fundamental” to effective border security and that the aim of the U.K.B.A. is to “fix people’s identities at the earliest point practicable” (Anon. 2007). The systematic biometric control of all tourist or business overseas travel aims at combating identity fraud and detecting suspicious movements. The U.K.B.A. also introduced a new process for the adjudication of asylum claims, called the New Asylum Model, whereby a U.K.B.A. staff member assumes the role of case owner and is responsible for all the decisions taken on an asylum application until the person is granted or denied permission

to stay. The case owner will conduct interviews with the applicant. A first interview aims to record details about how the applicant came to arrive in Britain and whether there was a relevant previous application for asylum either in Britain or another E.U. member state. A second interview, called the “asylum interview,” follows in which the applicant has the opportunity to give an account of why she or he wishes to apply for asylum. The overwhelming majority of asylum applications are rejected at this stage. The applicant then has the right of appeal and to be heard by an independent immigration judge. As Anthony Good (2009) argues, the outcome of this process largely depends on the credibility of the applicant’s own testimony regarding her or his history and reasons for arrival in Britain to claim asylum:

When presenting their claims, most asylum applicants cannot produce documentary corroboration of their ill-treatment, and certainly cannot call as witnesses those who have persecuted them. Asylum decisions are therefore heavily dependent upon assessments of the credibility of their accounts, presented to the Home Office and the courts mainly in the forms of asylum interview transcripts and witness statements. (Good 2009:1)

In a context where it is increasingly assumed that a high proportion of applicants do not tell the truth about their reasons for seeking admission to the country, the process is heavily weighted towards finding reasons to doubt the applicant’s testimony and reject the application.

Given the uncertainties involved in assessing asylum applicants’ testimony, for some time now, the U.K.B.A. – along with border agencies in other countries – has sought other methods to inform decision making. A key method, in this respect, is the

controversial technique of language analysis (see Kam's chapter in this volume). Since the early 2000s, it has become increasingly common for the U.K.B.A. to subcontract commercial firms to analyze the speech of asylum applicants, with the aim of determining whether they actually come from the country they claim (Campbell 2012). Since 2008, language analysis has been applied several thousand times to applicants presenting as Somalian refugees (Campbell 2012). Language analysis can be seen as a "technology of identification" aimed at establishing aspects of an applicant's identity without relying on their personal testimony.

In this context, the H.P.P.P. can be seen as an attempt to develop and implement additional technologies of identification that might potentially serve to establish nationality independently of such testimony and documentary evidence as asylum seekers can themselves provide. Justifying its investment in the H.P.P.P., the U.K.B.A. indicated that a "significant percentage of asylum applicants" might be engaging in "nationality-swapping," in particular applicants from the East African region. Kenyan nationals were allegedly seeking to pass themselves off as Somalis. The H.P.P.P. focused specifically on asylum applicants from that area to determine whether isotope and D.N.A. analysis could help to "identify at the outset of the asylum process those who are claiming under a false nationality" (U.K.B.A. 2009).

The H.P.P.P. involved two such technologies: genetic testing for biogeographical origins – often referred to simply as ancestry testing – and isotope testing. These technologies were trialed specifically as an additional test to support language testing, which had been shown to be vulnerable to legal challenge in appeal hearings. Genetic ancestry testing and isotope analysis were to be undertaken in cases where personal

testimony and language analysis led U.K.B.A. officers to suspect that an individual who claimed to be from Somalia might actually be from another country. We now turn to an explanation of these technologies and the contexts in which they have developed.

Technologies of Identification in the H.P.P.P.

One important issue that the case of the H.P.P.P. highlights is the uncritical way in which technologies that had yet to establish their validity and utility in the context of forensic science and criminal investigation were nonetheless adopted into the asylum context – initially, at least, on the assumption that they could be useful in evaluating ‘live’ asylum applications. In this section, we focus on the background to how genetic ancestry testing and isotope testing came to be adopted in the H.P.P.P.

It is important to understand how the genetic tests employed in the H.P.P.P. differ from other genetic technologies of identification. In the immigration context, D.N.A. testing is regularly used to determine biological relationships between individuals. This well-established and well-validated test involves looking at the degree of similarity between the D.N.A. of two individuals to determine whether they are biologically closely related, for instance as parent-child or siblings. Likewise, in forensic applications, routine D.N.A. identification is based on simple matching of D.N.A. profiles obtained from scene-of-crime D.N.A. traces with those from suspects. In contrast, the genetic tests for ancestry and geographical origins trialed in the H.P.P.P. were significantly more complex, and the inferences that can be drawn from them far more tenuous.

Genetic ancestry tests emerged in the late 1990s out of decades of basic research on population genetics. They utilize knowledge of how genetic variations arise through mutation and accumulate within more or less isolated populations, which thus come to

embody distinctive combinations of gene variants. By analyzing particular genetic variants present in an individual's D.N.A., it may therefore be possible to infer, with a reasonable degree of probability, that certain of that individual's ancestors were members of a particular biogeographical population. However, there are very clear constraints on the precision and certainty with which such inferences can be drawn. The ability to trace ancestry to any particular population depends upon how precisely that population has been characterized in genetic terms: ancestry tracing is only as good as the genetic reference databases on which it draws. The construction of such databases is informed by prior assumptions about what counts as a population, and biogeographic identities are thus inevitably clouded by ethnic/racial and geopolitical presuppositions. Moreover, because D.N.A. variants are passed on through generations, it is difficult to infer just how recently an individual's ancestors lived in a particular region. Consequently, a biogeographic origin test may show that a particular individual has shared ancestors with members of a population that now lives predominantly in a particular location, but says nothing about that individual's own recent place of residence, and certainly offers no scientific mechanism for establishing her or his nationality.

Despite these constraints, however, genetic testing for ancestry and geographical origins has come to be widely used, not only as a research tool by scientists interested in historical population movements but also as a consumer service (Shriver and Kittles 2004). One important market is among private users interested in tracing their recent genealogical and ancestral history. The idea that genetic testing can help to throw light on an individual's "roots" has been widely popularized in the media. The experiences of individuals who have undergone such testing to discover more about their family

histories and geographical origins provide compelling stories of personal identity and social history, and many such stories have featured in newspapers and magazine articles (Harmon 2007) and television programs (such as *Motherland: A Genetic Journey*, broadcast February 2003 on BBC television: see BBC 2003). As a result, hundreds of thousands of consumers have bought genetic ancestry tests over the past ten years (Wolinsky 2006: 1073).

The marketing, uptake, and effects of these tests have in turn been examined by social scientists. Some reemphasize their scientific untrustworthiness, noting for instance that commercial genetic tests for biogeographical origins often do not take account of the large population movements that have taken place across Africa in the past two hundred to three hundred years, and urging that this may have implications for the truth of the origin and identity stories that consumers build around such tests (Royal et al. 2010; Lee et al. 2009; Scully et al. 2013). Some suggest that such limitations are unimportant, as genetic ancestry testing is little more than a harmless recreational indulgence. Thus U.S. bioethicist Henry Greely concludes that genetic genealogy is “interesting but arguably not very important ... genealogy ... [is] rarely of real significance” (Greely 2008: 229). This has been very much the orthodox view: regulators and policy advisors have given little serious consideration to genetic ancestry testing, on the assumption that the ethical issues at stake are far less critical than those related to medical genetics (e.g., Human Genetics Commission 2003).

However, a growing number of social scientists argue that, despite its scientific and technical limitations, the dissemination of genetic ancestry testing into popular culture has the potential to effect far-reaching changes in ideas of identity, belonging,

history and race (Bolnick et al. 2007; Elliott and Brodwin 2002; Skinner 2006; Nelson 2008; Tutton 2004; Nash 2004). In particular, they point to instances where genetic ancestry testing is used not just for recreational purposes, but for the express purpose of identifying membership of particular sociopolitical groups. For instance, such testing has been employed by Native Americans in the United States to determine tribal membership in ways that can exclude individuals who have traditionally been part of such tribes (Tallbear 2008; Beckenhauer 2003). In such cases, D.N.A. testing is being used to redraw the boundaries around certain social and political identities, sometimes with profound implications for how individuals and groups think about themselves and for the life choices available to them. Meanwhile, forensic agencies have also taken an active interest in genetic ancestry tests as a possible means of identifying or eliminating suspects in criminal investigations. Notably, in Britain, the Forensic Science Service has looked into the geographical distribution of particular Y chromosome variants, and their association with particular surnames, as a means of using scene-of-crime samples to narrow down the range of likely suspects (Vince 2006).

Although genetic ancestry testing concentrates on tracing the genes of ancestors in contemporary human bodies, isotope testing is based on the way that the different environments in which an individual lives may leave distinctive traces in her or his body. The proportions of different isotopes of various chemical elements present in the environment vary from one locality to another. These elements are ingested in food and drinking water and are incorporated, over time, into body tissues. Consequently, assuming that a person consumes local food, water, and air, the proportions of different isotopes present in her or his tissues will mirror those in the place where he or she lives.

Moreover, because different tissues are laid down at different times in a person's life, they embody a record of the person's diet, and her or his movements over time. Adult teeth, for instance, are largely laid down between the ages of four and twenty, and may thus provide an indication of where a person lived as a child or young adult. Bone tissues, by contrast, are replaced over a period of several years, whereas hair and nails are replaced within a matter of months, so provide an indication of a person's habitation or consumption within more recent time frames.

We should note that, since both the number of naturally occurring isotopes and the range of possible variation are small, many different places in the world share similar isotope profiles. Consequently, isotope testing cannot be used to specify a unique location but may be useful as a way of eliminating options from a range of possible locations. These limitations are reflected in the way that archaeologists have used isotope testing to reconstruct the life course and migration of Neolithic and early mediaeval individuals from well-preserved skeletons (Evans et al. 2006; Budd et al. 2004): the confidence with which such reconstructions may be made is greatly aided by the fact that population movements at that time generally occurred over relatively small distances, thus reducing the range of possible places of origin, and that people consumed almost exclusively local food and water.

By the early 2000s, isotope testing was also becoming incorporated into forensic techniques for tracing the origins of biological and chemical substances. Law enforcement agencies in North America and Europe formed networks with academic centers, forensic research laboratories and commercial laboratories to develop ways of applying isotope science to various aspects of law enforcement. Isotope analysis is now

routinely used to authenticate the origins of certain imported foods such as honey. More importantly for security purposes, in 1999 the Forensic Explosives Laboratory (F.E.L.) at Fort Halstead in Kent, England, was funded by the British Home Office to examine the utility of isotope ratios in the forensic analysis of explosives, with a view to tracing their movement through international terrorist networks (Doyle 2002).

Crucially for the story of the H.P.P.P., genetic ancestry and isotope testing were used together for forensic purposes in the early 2000s in a rather unusual police investigation that became known as the Thames torso case. In September 2001, the Metropolitan Police began investigating a dismembered body of a young boy found in the river Thames in London. The unknown victim came to be known as “Adam.” Within a few months, the police came to focus on the theory that Adam was the victim of a ritualistic killing, which the British media repeatedly reported as an “African ritual murder” (Sanders 2003: 58). Although a number of Africanist anthropologists consulted by the Metropolitan Police contested this framing of what happened to the boy, arguing a lack of evidence to support this account, the detectives pursued this line of inquiry (Ranger 2007; Sanders 2003). As well as visiting Nigeria and South Africa, they employed the services of population geneticists and geochemists to help them determine the boy’s ancestry and place of origin. Mitochondrial D.N.A. analysis indicated that he was probably of West African origin, while analysis of the strontium isotopes in his bones was consistent with him having grown up in a “small area in north-west Africa, probably a rural area near the city of Benin in south-western Nigeria” (in Ranger 2007: 272). As a result of a witness coming forward, police now believe they have identified the boy and have spoken to relatives still living in Nigeria (Quinn 2011). Though the

perpetrators have never been found, the case generated considerable media interest and much of the original investigation was documented by a film crew and shown on British television.

A direct link can be drawn between this case and the H.P.P.P. The detective in charge of the Thames torso investigation was Detective Inspector Will O'Reilly. He is credited with being responsible both for proposing the H.P.P.P. and for securing its funding from the British Foreign and Commonwealth Office (F.C.O.) under its Returns and Reintegration Fund, with “full Ministerial support” (Douglas 2009). On retiring from the Metropolitan Police he became the project manager of the H.P.P.P., and – it is claimed – went on to assist in the construction of “isotopic and ancestral DNA databases for the forensic use of law enforcement agencies worldwide” (Anon. 2012). It would appear that the H.P.P.P. was directly inspired by O'Reilly's experience of using these new and still relatively untested technologies of identification in the Adam torso case. We now consider whether these new technologies can appropriately be transferred to the assessment of asylum applications.

Substituting Biology for Nationality

Recent years have seen a massive intensification in the use of new technologies of identification – including biometrics and networked information technology as well as language analysis – not just for evaluating the credibility of asylum applicants, but for routine purposes of border control. Such technologies are concerned with identity, not as experienced by individuals but as assigned by impersonal, suspicious, and often hostile agencies. As Louise Amoore (2011) has argued, they diminish the agency of all who cross international borders, by depriving them of their right to tell their own stories (*see*

also Feldman 2012). The use of biometric and linguistic technologies shifts the evidence from the applicant's personal narrative of persecution to seemingly objective means of assessing certain aspects of identity. However, such technologies of identification do not simply offer more objective means of confirming or disconfirming conventional identity claims. They actually redefine the social categories of identity on which immigration and asylum decisions are based. Thus, genetic family relationship testing replaces the social category of kinship with the biological category of genetic relatedness; as other observers have noted, since biological relatedness does not necessarily map onto kinship, for instance where children are adopted, this may do violence to family relationships and cause renewed distress to those seeking asylum (Heinemann and Lemke 2013). The H.P.P.P. went even further in seeking to employ biological categories of ancestry and life history as a proxy for the social category of nationality. Criticism of the H.P.P.P. has focused primarily on the viability of this substitution.

With regard to isotope testing, critics pointed out that archaeologists and forensic investigators are typically able to base their inferences about individuals' origins and movements on measurements from a range of tissues, including teeth and bone as well as hair and fingernails. By contrast, U.K.B.A. officials could not take tooth or bone samples from asylum applicants, so were limited to observations of hair and fingernails, which only provide information about an applicant's likely diet over a short period of time. This placed very severe limits on what can be inferred from such measurements. Asylum applicants often spend protracted periods away from their home country before arriving at their country of destination. Many Somali refugees, for instance, spend years in refugee camps outside their home country, while those who resort to human trafficking

networks may spend long periods being moved from one place to another before being delivered to Britain. Even in instances when individuals come directly to Britain from their home country, their diet in the previous months could often be heavily supplemented with imported food, particularly in countries such as Somalia that receive significant quantities of food aid. All of these factors will mean that the isotopes present in asylum applicants' hair and nails may bear little relationship to those found in their home country. In consequence, it is difficult to see how isotope analysis could provide meaningful information about the origins of asylum applicants subjected to the H.P.P.P. It might, however, provide evidence consistent with an individual having recently spent time in another country outside their country of origin – which the U.K.B.A. typically sees as sufficient reason to reject an asylum application, as it assumes that the applicant can safely be returned to that other country.

Moreover, the use of isotope testing to indicate whether a person's biological makeup is consistent with them having spent time in a particular region depends on having sufficiently detailed information about the distribution of the relevant environmental isotopes across that region. Such data for Somalia are very sketchy; while the situation there makes it unlikely that accurate mapping will be undertaken in the foreseeable future. Similar objections have been made to the use of genetic ancestry testing under the H.P.P.P. Critics pointed out that there is little detailed information about the genetics of Somali populations; the present political situation effectively prohibits the kind of research that would be necessary to generate such information. Even if such research were possible, significant and often chaotic population movements prompted by the political situation would likely render the resulting data unreliable in a relatively short

time. The U.K.B.A. sought to get around these problems by compiling information on the genetics of various Kenyan populations, on the grounds that the majority of “bogus” Somali asylum seekers were thought to come from Kenya – but without proper knowledge of the genetic similarities, differences, and overlaps between Kenyan and Somali populations, such information is meaningless.

This leads to another even more fundamental issue: namely, that biological information about population genetics or environmental circumstances has no necessary relationship to the social categories of national identity and citizenship. As the journal *Nature* put it, “the idea that genetic variability follows man-made national boundaries is absurd” (Nature 2009). Exactly the same point can be made about language analysis (Campbell 2013). On the one hand, national borders have often been drawn in ways that cut across existing population groupings – as for instance in Eastern Africa, where ethnic Somalis are found on both sides of the border that divides Somalia from Kenya. On the other hand, national borders rarely represent a complete barrier to human migration and relations, and such migrations may be especially large in wartorn areas such as the Horn of Africa. In sum, genetic testing, and information about probable place of recent residence provide no guide to nationality.

Conclusion

The H.P.P.P. ended on March 31, 2010. Initially, the U.K.B.A. had promised to publish a full review of the project. In the event, no such review was ever conducted. By way of explanation, the U.K.B.A. responded to a Freedom of Information request by one of the authors as follows:

Following the conclusion of the pilot, a decision was taken within the U.K. Border Agency not to take forward D.N.A./Isotope testing for country of origin identification purposes in the foreseeable future. On the basis of this decision, it was agreed that resources would not be devoted carrying out an evaluation of the pilot at this point in time. If a decision to resume Familial D.N.A. or Country of Origin testing is taken in the future, further consideration will be given to the scientific, legal and ethical basis on which it would operate. The Home Office would engage with relevant experts to address any concerns that may be raised regarding the use of this technique. (Martin 2011)

The U.K.B.A. response also detailed that 198 familial relationship tests were carried out over 76 family groups, while a total of 38 individuals were tested as part of the “country of origin” element of the H.P.P.P. (Martin 2011). It is notable that, while the U.K.B.A. states that it has no plans to develop these techniques in the “foreseeable future,” it leaves open the possibility that the U.K. government may decide “to resume ... Country of Origin testing ... in the future.”

At first sight, this appears to be a very odd response. Given that a wide range of experts, including population geneticists and environmental chemists as well as lawyers and social scientists, had argued that the scientific assumptions on which the H.P.P.P. was founded are fundamentally flawed, why did the U.K.B.A. not acknowledge this criticism by definitively ruling out the possibility of using molecular techniques to determine nationality in future? The answer, we would argue, lies in the way the U.K.B.A. frames aims and means of border control more generally. The H.P.P.P. was indicative of a broader set of trends by which technologies, practices, and modes of

thought from the context of criminal investigation have come to shape the asylum system. The sociologists Robin Williams and Paul Johnson have argued persuasively that the establishment and use by U.K. police of the forensic National D.N.A. Database should be seen as part of a larger paradigm shift in policing: from a criminal justice paradigm, premised on a concern to deliver justice equally to all citizens, to a crime management paradigm, concerned rather with identifying and managing what is taken to be an inherently criminal element within society (Williams and Johnson 2008). According to Williams and Johnson, the routine use of technologies of identification like the National D.N.A. Database has been a vital element in realizing the crime management paradigm, by providing an effective means of both identifying and incriminating that criminal element.

In that light, the H.P.P.P. appears to be part of a similar shift in asylum procedures: from a humanitarian paradigm motivated by a concern to provide shelter for the victims of human rights abuses, to a border control paradigm concerned with restricting the movement of would-be immigrants. In the border control case as in the crime management case, new technologies of identification provide a means of identifying and excluding suspect individuals from the rights and privileges enjoyed by ordinary citizens. Moreover, these parallels are more than just accidental, or attributable to some more general shift in government ideology. They also involve direct exchange of technology and expertise between the respective government agencies. The H.P.P.P. was actively promoted and subsequently managed by ex-Detective Inspector Will O'Reilly, who had previously employed the same technologies of identification in forensic police work. Moreover, the U.K.B.A. anticipated that the results of the H.P.P.P. would

eventually be evaluated by the Forensic Science Regulator, an ombudsman responsible for ensuring that forensic services meet appropriate standards of scientific quality (Vorhaus 2009). In effect, the H.P.P.P. marked a distinct convergence of personnel, technology and practice between policing and border control. Seen in this light, the H.P.P.P. was clearly a further step in the de facto criminalization of asylum applicants that we described at the beginning of this chapter.

Once we appreciate this, we can begin to understand why the U.K.B.A. remained relatively unmoved by criticism from scientists and others. What matters, from a border control perspective, is not so much the need to distinguish legitimate from illegitimate asylum applicants, but rather the need to manage and control the flow of individuals into the country. The U.K.B.A.'s attitude towards the new molecular technologies of identification trialled in the H.P.P.P. reflects this perspective. Faced with concerted criticism of the scientific viability of the H.P.P.P., the U.K.B.A. responded, not by mobilizing contrary scientific arguments, but by raising a very different point: whatever the scientific case, the H.P.P.P. had at least proved to be an effective deterrent, as measured by a significant reduction in the number of asylum claims during the time it was in operation.⁴ This response is telling. It is of course impossible to say how many of those deterred by the additional barriers imposed under the H.P.P.P. were legitimate applicants and how many were bogus. But as far as the U.K.B.A. was concerned, that seems to have been beside the point. What mattered was that application numbers had fallen. This has implications for what was expected of the new technologies of identification. In order to be of use in restricting the influx of asylum seekers, it was not necessary for those technologies to provide an accurate or reliable means of determining

the nationality of any individual. All that was required was that they be effective in challenging and undermining the personal testimony on which asylum applications are based. Given the presumption that most asylum seekers are illegitimate, the policy aims to deter all those from applying who may find their prospect of being accepted improved elsewhere, independent of whether or not they are genuine refugees.

In effect, these molecular biotechnologies and other tests only serve as “technologies of suspicion” (Campbell 2004), without having to meet the higher standards of technical certainty required of technologies of truth in science and judicial proceedings. That the U.K.B.A. and the forensic experts with whom they worked chose not to engage with the criticisms of external scientific experts suggests that it was the former standards that they worked to, not the latter.

The priorities behind the introduction of the H.P.P.P. are evident: it was motivated at least as much by a desire to discourage asylum seekers from applying as by any concern to identify and provide refuge for legitimate refugees. The use of new technologies of identification under the H.P.P.P. and the highly selective attitude towards different forms of technical expertise demonstrated by the U.K.B.A. were entirely in keeping with this orientation. In the event, it appears that concerted and sustained criticism ultimately led the Border Agency to shelve the use of genetic and isotope testing for country of origin. But as we have seen, the Agency also declined to foreclose the possibility that such use will be revived in the future. Meanwhile, the political impetus to further restrict immigration into the United Kingdom, including admission of asylum seekers, persists – and, with it, the motivation to adopt new technologies of identification to challenge the testimony of asylum applicants. Consequently, the H.P.P.P. stands as a

salutary warning of the ways in which new technologies are increasingly being used at international borders as means of disempowering the vulnerable. But more than that, the way that the U.K.B.A. has responded to criticism by scientists and other external experts serves as a reminder that expertise and the salience of technical arguments depends on context: within the context of U.K. border control, certain kinds of argument and expertise clearly count for more than others. If the use of new technologies to deny the rights of refugees is to be countered, that context, and its implications for the politics and deployment of expertise, needs to be understood.

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Notes

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² The language of "fortress Europe" is widely used, particularly by critics of E.U. immigration policy. For recent examples, see "Fortress Europe: How the E.U. Turns Its Back on Refugees,"

Spiegel Online, October 9, 2013, <http://www.spiegel.de/international/europe/asylum-policy-and-treatment-of-refugees-in-the-european-union-a-926939.html> [retrieved December 20, 2013]; “Fortress Europe ‘Miserably Failing’ Syrian Refugees,” *The Week*, December 13, 2013, <http://www.theweek.co.uk/world-news/syria/56501/fortress-europe-miserably-failing-syrian-refugees> [retrieved December 20, 2013].

³ The right to seek asylum in another country is enshrined in international law, such as the 1951 United Nations Refugee Convention that defines a refugee as someone who ‘owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality, and is unable to, or owing to such fear, is unwilling to avail himself of the protection of that country’ (U.N.H.C.R. 2012).

⁴ Will O’Reilly from the U.K.B.A. made this claim at a meeting with members of the H.G.C. in Hinxton, Cambridge, in February 2010 (H.G.C 2010).